



Summary and Supporting Documents from Ohio's 2020 Virtual Envirothon Competition

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Ohio Envirothon 2020 Virtual Competition Summary

Ohio's Typical In-Person Envirothon Program

Ohio is divided into five areas for our regional competitions. Those are held between the last week of April and first week of May. About 250 teams compete in Ohio's regional events.

Our state competition is a two-day competition held at a university (it rotates to a different area of the state each year) the second week of June. Ohio's top 20 teams compete. The first day is field testing, followed by oral presentation preparation. The second day is when the students present their oral presentations.

Ohio's 2020 Virtual Competition

Online Test:

Registration: Teams completed a registration form (google forms) that asked for the school and team name, team members' names and grades, alternate names and grades, team captain name and email address, advisor name and email address.

Tests: The tests were google-based. The two state reps from each of our five areas were in charge of the test for a specific resource area (i.e. Area 3 was responsible for the Forestry test). We used the test questions that had been written for that resource area for the cancelled area competitions, with tweaks to the questions to make them fit the online format. We decided to do it that way in case our areas wanted to use the questions from the four other resource stations at their 2021 competitions.

There were 20 questions for each station. Each test had its own link and the links were emailed to the team captains only. Each test had a 20-minute time limit and had to be completed once it was opened. The tests could not be re-opened once the link was clicked. The tests were available to be taken from May 6 - 8, so that teams had the opportunity to decide when it was easiest for them to get together remotely to take the them.

It was up to each team to decide how they would coordinate with each other remotely. Our state association has a Zoom subscription, so we offered it to teams to use in case they didn't have an online meeting platform. We also offered them the opportunity to use it to practice working together over an online platform.

The team captain opened the tests and shared it with the team members. We provided a link to a funny sample test for the teams to practice with. To make sure the process worked, our entire committee also took the tests over a Zoom meeting with me as the Team Captain sharing my screen.

There was no real way to 'police' the rules, but we used this statement in our written materials to teams:

We realize that this is a much different way to organize the competition than all of us are used to. Unfortunately, this will not be perfect, as there is no foolproof way to control those components of the competition that we have the ability to during in-person events. In these unprecedented times, we will be relying on all of you to maintain the standards of honesty and integrity that have always been a hallmark of Ohio's Envirothon teams!

We even included a google-based 'grievance form' in case there were any issues with question content, to be filed by one hour after the close of the online test.

Oral Presentation:

The top six teams moved on to the OP part of the competition. We kept the dates the same as what our state event would have been - June 8th and 9th. They again had to register with a google registration form (that was checked against their registration form for the online multiple-choice test), so that we could ensure that eligible students were participating.

The students were asked to prepare a five-minute presentation on a given scenario to be presented over Zoom before a panel of three judges. They were allowed to use power point, prepare a video, or do a speaking presentation. They were also permitted to use online and written resources. They were required to cite sources for any pictures used. There was no limit to the number of slides if they elected to use the power point option.

The scenario was released to the teams during a 9 AM Zoom call on the morning of June 8, in exactly the same format that we would normally do it at an in-person event. We used a digital wheel that the students could see via screen sharing (like the 'Wheel of Fortune' show wheel) to randomly choose the order of presentations. Immediately following the Zoom meeting, team captains were emailed the scenario that had been read to them and any resource materials (soils map and soil survey link). The teams then had 24 hours to prepare the presentation.

Teams were required to email in their final presentations and photos of note cards, etc. by 9 AM the following day (Tuesday, June 9). This was to ensure that all teams had equal preparation time. Two Ohio Envirothon Committee members were in the Zoom judging room to follow along and ensure that no changes were made after their submission.

The judging sessions were scheduled for Tuesday, June 9, from 12 to 3 PM, in half hour blocks. In each session was: the team, a time-keeper, two representatives from Ohio Envirothon, three judges, and the advisor(s) if the team chose to have them there.

Unfortunately, there was no real way to police the students during their preparation period. For this reason, we stressed that the judges were to have an in-depth question period and questions were to be based on a team's presentation. In this way, they could get a better idea of if the team members had actually learned something, or merely copied it from the internet or were helped by their advisors.

Awards:

We did not have a virtual awards ceremony for the first part of the competition (the online test). However, we did an awards presentation via Zoom after the oral presentations. We prepared a video announcement of the award winners that was shown during the Zoom call. The CEO of our state agency started the awards video announcement on behalf of the OFSWCD and Ohio Envirothon, and announced teams 6 through 4. To incorporate our sponsors, we had some of our major sponsors each do a short video announcing the top three teams. The link to the video awards presentation is below:

<https://www.youtube.com/watch?v=wGzvYKngiGk>

We also had prizes and awards. We ordered bandannas for everyone (all participating teams and their advisors, judges and alternate judges, the committee volunteers and sponsors).



The top three teams received the following:

First Place: Each team member received \$100 and an additional \$300 was awarded to the team.

Second Place: Each team member received \$75, and an additional \$300 was awarded to the team.

Third Place: Each team member received \$50, and an additional \$300 was awarded to the team.

The original intent of the team awards was to provide money to be used towards a team experience such as kayaking at a state park, etc. However, with the uncertain times that continued, we left it up to each team to decide how they would use the funds.

We also sent thank you notes to sponsors and participating teams.

Email Communications Used During the 2020 Virtual Ohio Envirothon

The Ohio Envirothon logo was the header on all emails relating to the competition:



The following email was sent to Ohio's five regional (area) competition committees at the start of the pandemic:

Good afternoon, everyone!

I just wanted to give you an update on the status of the Envirothon program across the state. To date, all in-person events at the Area and State level have been cancelled. We are, however, moving forward with an online test for teams that still want to participate. It seems that everyone is extremely interested in the outdoors these days - we hope to use this opportunity to keep the interest in natural resources alive with our high school students! The Ohio Envirothon Committee is using test questions from the cancelled area Envirothons to put together an online test. Any team that registers across the state will be taking the same test, versus each Area having to responsible for developing their own. We took into consideration the comments and ideas from Area Committee members across the state in order to try to make the test as engaging and fair as possible given the circumstances. We are working out the details of which testing platform we will be using and whether or not teams can connect remotely to take it together or individually. We realize that no scenario is going to be perfect, but we are trying our best to come up with a quality product.

Attached is a short 'Intent to Participate' form and explanatory paragraph to send to Advisors around the state to better help us get a handle on the number of teams planning to participate in an online competition and also whether advisors could facilitate a virtual team test. As we did with the last questionnaire, please send the information below to Advisors in your individual counties. Thank you for your input throughout this process, and for sharing this information with your teams!

Dear Envirothon Advisors,

Due to the spread of the COVID-19 virus and the unique challenges it poses to schools and communities across the state, Ohio has decided to cancel all in person Area and State competitions this year. This decision was not easy, but it was made in the best interest of the health and safety of participants, volunteers, and agency partners.

Although all in person events have been cancelled, we are working to keep Envirothon teams engaged by developing an online version of the test, with the hope that we can still send a team from Ohio to the

NCF-Envirothon competition in Nebraska in late July, if the event still proceeds. We are still working out the viability and details of the online test.

This will be a much different look to the competition than we are typically used to, so please bear with us as we navigate through this process.

In order to know how many teams we would be accommodating with the online test, if you have a team that would like to participate in the online testing, please complete an 'Intent to Participate' using the following link:

<https://www.surveymonkey.com/r/P3XZ2PW>

Your response is requested by Thursday, April 9, 2020. We will follow-up with details as soon as they become available. We appreciate your patience, understanding, and dedication to Ohio's Envirothon program!

The following email was sent to Envirothon advisors regarding the status of the Envirothon in their school:

Good afternoon everyone,

We want to provide an update on the status of the Area 3 Envirothon. Because of the closures and widespread effects of the COVID-19 virus, Ohio is trying to plan a course of action for Envirothon competitions across the state, and we are looking for your guidance on how to help us proceed with the Area and State Envirothon competitions planned for this year. We realize that the field competition scheduled in Knox county at the end of April is probably completely off the table. However, we are looking at alternative ways to hold the competition, including the possibility of test-proctoring in-classroom (if in-person instruction resumes) or online testing.

With everything that is going on, we understand that you are probably extremely busy trying to coordinate a variety of different things. Though this may be low priority, the answers you provide will be very valuable in helping us to move forward. Each Envirothon team Advisor across the state will be receiving this questionnaire. There is a ripple effect with the Envirothon, not only for each level of competition in our state, but also across the country, impacting the NCF-Envirothon event planned for late July of 2020 in Nebraska.

You can either complete the questionnaire using the attached fillable PDF form or through the following link (which is compatible with smart phones):

<https://forms.gle/8fDvWrVKgWQKaPJ7>

Please submit your responses by Monday, March 23, 2020. We appreciate you bearing with us for a short while longer as we try to navigate through a situation that no one expected or has experienced before. We want to ensure that we are addressing the needs, concerns and safety of everyone at this time.

Thank you in advance for your responses, and for your patience!

The following email was sent to Envirothon advisors regarding 'Intent to Participate':

Good afternoon, everyone!

I just wanted to give you an update on the status of the Envirothon program across the state. To date, all of Ohio's in-person events at the Area and State level have been cancelled. The NCF-Envirothon planned for Nebraska in late July has also been cancelled. We are, however, moving forward with an online test for teams that still want to participate. Any team that registers across the state will be taking the same test, and it will be up to teams to coordinate how they will work on the test together remotely. Nearly 30 teams sent back an 'Intent to Participate' in an online test. IF you did not send the form out to teams in your county, you may still do so using the following link:

<https://www.surveymonkey.com/r/P3XZ2PW>

The completed 'Intent to Participate' is how we are gathering the information needed to distribute information to those teams who want to take part in the online test.

The teams with the top score on the online test will be asked to prepare a short presentation on a scenario that will be judged remotely (those details are still being worked out). We do plan to have prizes for the top three teams – we have some really fun ideas but are working to see if we can bring those to life.

We realize that this isn't going to be perfect, but we are trying our best to come up with a test that is engaging, educational and fun.

Thank you for your input throughout this process, and for your dedication to Envirothon program!

The following email was sent to Envirothon advisors who submitted an 'Intent to Participate':

Dear Envirothon Advisors,

As you have been previously made aware, due to the spread of the COVID-19 virus, Ohio cancelled all in-person Area Envirothon competitions, as well as the State competition that was scheduled for early June. Many states and Canadian provinces have cancelled their regional and state/provincial competitions across North America. The NCF-Envirothon scheduled for Nebraska in late July 2020 has also been cancelled.

However, Ohio has been working to keep Envirothon teams engaged by developing an online version of the test. The attached document explains the online testing process, and includes a link to the Team Registration form, which must be completed by Tuesday, May 5, 2020.

The Team Captain will access the test and select the answers to the test questions, with input from other team members via some type of online facilitation platform (Zoom, etc.) that the students are familiar with and comfortable using. It will be up to each team to decide how they will coordinate remotely. Please be aware that the testing platform is Google-based. For ease of use, it is recommended that the device being used to open the test is affiliated with a gmail account.

The online test will be available from 8 AM Wednesday, May 6 through 8 PM Friday, May 8, 2020.

If your teams are unfamiliar with online collaboration programs, the Ohio Federation of Soil and Water Conservation Districts (OFSWCD) has a Zoom subscription available. Teams will need to schedule an appointment time to take the test within the three-day window. If your team wishes to use this conference feature, please contact Janelle Mead: jtmead@ofswcd.org

The Ohio Envirothon Committee is excited to be able to offer this testing opportunity to your teams!

If you have any questions or are experiencing technical difficulties with the registration form or sample test, please contact: Emily Heppner: emily.heppner@agri.ohio.gov or Wendee Dodds: wzadanski@jeffersoncountyoh.com

The following email was sent to participating Team Captains:

Envirothon Team Captains,

Welcome to Ohio's first (and hopefully only!) "virtual" Envirothon!

The online test will be available from 8 AM Wednesday, May 6 through 8 PM Friday, May 8, 2020.

Because this is an online test, there are many opportunities for technology to go wrong. We have tried to minimize this problem by creating a detailed list of instructions, which are attached. IT IS VERY IMPORTANT that you read and follow the attached instructions CAREFULLY!

DO NOT OPEN any of the attached testing links until you are in your online collaboration platform and ready to begin taking the tests. Tests are timed, and timing begins the minute the test is opened. Once a test has begun, it will not be able to be re-opened. Only the Team Captain may open the testing link. If the test is opened by additional team member, the test will lock.

Below is the link to the Soil Survey of Paulding County, which you will need in order to complete the Soils Station test:

https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/ohio/OH125/0/Paulding_OH.pdf

!!!! Please download and SAVE the Soil Survey document instead of trying to scroll through the pages on the internet. Scrolling through it while it is open on the web causes a glitch that makes the pages jump around continuously.

Also, if your team needs access to an online collaboration program with screen-sharing capabilities, Ohio Federation of Soil and Water Conservation Districts (OFSWCD) has a Zoom subscription available. You will need to schedule an appointment time to take the test within the three-day window. If you would like to use this conference feature, please contact Janelle Mead: jtmead@ofswcd.org

The Ohio Envirothon Committee is very excited to be able to offer this testing opportunity to your teams. We hope that you learn a lot, continue to take an interest in natural resources and the environment, and have fun!

The following email was sent to provide an Envirothon update to all of Ohio:

2020 Envirothon Update

As many of you know, due to the spread of the COVID-19 virus, Ohio cancelled all in-person Area Envirothon competitions, as well as the State competition that was scheduled for early June at Lake Erie College. The NCF-Envirothon scheduled for Nebraska in late July 2020 has also been cancelled.

However, Ohio has been working to keep Envirothon teams engaged by developing an online version of the competition. Thirty teams representing 19 school districts across the state registered to take part in the testing. The timed test consists of 100 questions, covering the five resource areas of: Aquatics, Forestry, Soils, Wildlife and this year's Current Environmental Issue: Water Resource Management – Local Control and Local Solutions. The competition concludes at the end of this week.

The six top scoring teams will be asked to develop and submit a five-minute presentation that will be judged virtually. Of those six, the top three teams (using both the online test and presentation score) will receive awards.

On behalf of the Ohio Envirothon Committee, please accept our thanks to everyone who provided input and assisted with the online testing effort, from Area Envirothon Committees to partners, test writers, and sponsors. Despite everything, many Districts and partners have still sent funding contributions to Ohio's program this year, and we are sincerely appreciative. We couldn't ask for a better conservation team in Ohio.

Sincerely,

Wendee Dodds
Ohio Envirothon Committee
Jefferson Soil and Water Conservation District

The following email was announcing results of the online test:

Thank you for being a part of Ohio's 2020 Virtual Envirothon!

The test results are in.... and the top six placing teams are:

First Place: Brecksville-Broadview Heights High School Second Place: Delaware Area Career Center Blue
Third Place: Bellefontaine High School Fourth Place: Lynchburg-Clay High School Eagles Fifth Place:
Lynchburg-Clay High School Gold Sixth Place: Boardman High School

These six top scoring teams will be asked to develop and submit a five-minute presentation that will be judged virtually on Tuesday, June 9, 2020. Further instructions will follow. The top three placing teams (using both the online test and presentation score) will receive awards. And don't forget, everyone who participated will receive commemorative bandannas!

The highest placing teams in each station are:

Soils: Brecksville-Broadview Heights High School

Forestry: Bellefontaine High School
CEI: Brecksville-Broadview Heights High School
Aquatics: A-Tech
Wildlife: New Albany High School

The complete list of team scores is attached. A copy of your tests and answers will be sent to your teams.

THANK YOU to all of you who participated in the virtual Envirothon, and THANK YOU to your Advisors for their unwavering support of the Envirothon program! We hope that this was a positive experience for all of you, and that you found the tests challenging and fun. We are very proud of your teams and hope that you continue to be excited about learning more about natural resources and the environment.

Sincerely,
The Ohio Envirothon Committee

The following email was sent to the top 6 placing teams advancing on to oral presentation (advisors and team captains of top 6):

Congratulations in placing among the top six teams in Ohio's virtual Envirothon!
For the next level of the competition, we are asking your teams to prepare and present a five-minute oral presentation via Zoom. Please read the attached letter, which outlines the process and rules for the Oral Presentation component of the competition, which is scheduled for Monday, June 8th and Tuesday, June 9th.

Please use the following link to register the five team members who will be participating:

<https://forms.gle/y18gyCVrDGvNMx7y9> <<https://forms.gle/y18gyCVrDGvNMx7y9>

Please complete your registration by Monday, June 1, 2020.

The scenario will be presented to your teams during a Zoom call on Monday, June 8th at 9 AM. During the meeting, we will also be drawing time slots for your presentations. Presentations are scheduled for Tuesday, June 9th from 12 to 3 PM. The information for the Zoom meeting is below:

Subject: Ohio Envirothon Scenario Release (students only)
When: Monday, June 8, 2020 at 9:00 AM
Location: <https://us02web.zoom.us/j/83451953001?pwd=cHJPR1QyYi9sZk90d0lzeU5UVlp3Zz09>
Meeting ID: 834 5195 3001
Password: 089199
Find your local number: <https://us02web.zoom.us/u/kelhaq0XYa>

If you have any problems connecting to the meeting, please contact Janelle Mead: jtmead@ofswcd.org

As we get closer to the competition dates, Team Captains will receive any additional instructions or information, so please email any changes in email address to: wzadanski@jeffersoncountyyoh.com

Sincerely,
The Ohio Envirothon Committee

The following email was sent to the top 6 teams as a reminder to register for the oral presentation:

Good afternoon Advisors and Team Captains!

This email is just a friendly reminder that registrations for the Oral Presentation component of the Envirothon are due on or before this coming Monday, June 1, 2020. So far, only one team has registered.

Please use the following link to register the five team members who will be participating:

<https://forms.gle/y18gyCVrDGvNMX7y9> <<https://forms.gle/y18gyCVrDGvNMX7y9>>

If your team will not be participating, please email me at: wzadanski@jeffersoncountyoh.com

Thank you!

Wendee Dodds
Ohio Envirothon Committee

The following email was sent to the top 6 teams registered for the Oral Presentation:

Good morning Team Captains!

All six of the top placing teams have registered to participate in the Oral Presentation of Ohio's Virtual Envirothon.

This email is just a quick update and reminder that the Zoom meeting for release of the Oral Presentation scenario is this coming Monday - June 8th at 9 AM. During the meeting, we will go over any additional instructions and also hold a drawing of time slots for your presentations. The information for the Zoom meeting is below, and is for team members only:

Subject: Ohio Envirothon Scenario Release (students only)
When: Monday, June 8, 2020 at 9:00 AM
Location: <https://us02web.zoom.us/j/83451953001?pwd=cHJPR1QyYi9sZk90d0lzeU5UVlp3Zz09>
Meeting ID: 834 5195 3001
Password: 089199
Find your local number: <https://us02web.zoom.us/u/kelhaq0XYa>

If you have any problems connecting to the meeting, please contact Janelle Mead: jtmead@ofswcd.org

Just a couple of other reminders:

* Immediately following the Monday Zoom meeting, Team Captains will receive an emailed copy of the oral presentation scenario, as well as any supporting documentation. Team Captains will also be sent the Zoom meeting information for your presentation time.

* Your teams will have 24 hours to remotely work together to prepare a five-minute presentation. You may use power point, make a five-minute video, or simply use note cards to assist with a verbal presentation. All five team members must participate to be eligible for awards.

* You may use written or online resources. Please remember that this is a team activity only. Advisors, resource professionals, or other individuals are not to assist your team with preparation of your presentation in any way.

* All teams must turn in your final presentations via email by 9 AM on Tuesday, June 9, 2020 to the following email address: envirothonohio@gmail.com <<mailto:envirothonohio@gmail.com>>
If your team is using note cards or other written materials to assist in giving your presentation, clear photos of those must be emailed in as well. This is to ensure that all teams have equal preparation time.

* The first team will present at 12 PM on Tuesday, June 9, 2020. Presentations are scheduled to be judged via Zoom every half hour until 3 PM. The presentations will be recorded. Your team is asked to arrive in the Zoom "waiting room" five minutes prior to your presentation time.

* In addition to the three judges, a time-keeper will be present in the Zoom presentation "room", as well as two representatives from the Ohio Envirothon Committee and your Advisor, if you so choose. The representatives from the Ohio Envirothon committee will be following along with your presentation to ensure that nothing has been changed from the final version your team submitted.

* The timing of each team's presentation will be monitored by the time-keeper, who will instruct you when to start. Teams will receive a 10-point reduction for a presentation that is less than 4 minutes or more than 6 minutes. At 4 minutes, the timekeeper will show a green card. At 5 minutes, a yellow card, and at 6 minutes, your team will receive a red card and be asked to stop.

* Your team members should be prepared to answer questions on your presentation, to help the judges determine the level of learning that has been achieved on the material that your team has presented.

* Attached is the scoring sheet for your reference. Each judge will score your team presentation individually and the scores of the three judges will be added and averaged for each team. Those scores will then be added to your team's field testing scores.

* If your team is unfamiliar with the Zoom platform, the Ohio Federation of Soil and Water Conservation Districts (OFSWCD) has a subscription available. Please email Janelle Mead if your team needs to schedule a practice session to be better prepared to share your presentation via the "share" screen, etc. Janelle can be reached at: jtmead@ofswcd.org <<mailto:jtmead@ofswcd.org>>

If you have any questions at all, please don't hesitate to contact me. We are really excited about this second level of the competition and look forward to meeting with you on Monday!

Wendee Dodds
Ohio Envirothon Committee

The following email was sent to individual team captains regarding the oral presentation (email was tailored to a particular team because of the unique Zoom link for their oral presentation):

Bryson,

Attached is the Oral Presentation scenario for the Virtual Envirothon and also a soils map.

Below is the link to the Soil Survey of Geauga County:

https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/ohio/OH055/0/geauga.pdf

!!!! Please download and SAVE the Soil Survey document instead of trying to scroll through the pages on the internet. Scrolling through it while it is open on the web causes a glitch that makes the pages jump around continuously.

!!!! Your team must turn in your final presentation via email by 9 AM TOMORROW, June 9, 2020 to the following email address: envirothonohio@gmail.com

If your team is using note cards or other written materials to assist in giving your presentation, clear photos of those must be emailed in as well. Your presentation may not be changed after your final version has been submitted.

Your judging session is scheduled for: 2 PM, Tuesday, June 9

Below is information you need to access the judging room:

Topic: Ohio Envirothon - Team 5 Oral Presentation

Time: Jun 9, 2020 02:00 PM Eastern Time (US and Canada)

Join Zoom Meeting -

<https://us02web.zoom.us/j/81989542315?pwd=MGRmcWxHWms3UDFiOTV4aUo0QlNYdz09>

Meeting ID: 819 8954 2315

Password: 337082

One tap mobile

+16465588656,,81989542315#,,1#,337082# US (New York)

+13017158592,,81989542315#,,1#,337082# US (Germantown)

Please arrive with your team five minutes to your scheduled presentation time.

If your team needs to practice using Zoom, please schedule a practice time with Janelle Mead:
jtmead@ofswcd.org

If your team has any questions, please contact Wendee Dodds: wzadanski@jeffersoncountyoh.com or Emily Heppner: emily.heppner@agri.ohio.gov

We understand that sharing resources and connectivity may be difficult to do individually, so if you need to get together to work on your presentation, we ask that you please practice social distancing as best you can and take other precautions to stay safe.

We know that Ohio has really bright and creative Envirothon students, and we look forward to your team's presentation! We hope that you learn a lot, continue to take an interest in natural resources and the environment, and have fun!

The following email was sent as an invitation to the virtual awards ceremony:

Envirothon Teams, Advisors, and Guests

This is it! The moment you've all been waiting for...

Please join us for a short Zoom meeting tomorrow, June 12th at 11 AM, where we will share a short video announcing the winners of the 2020 Virtual Envirothon!

We will send out the video link immediately following the Zoom meeting, so don't worry if you won't be able to tune in at 11 AM.

It was truly a pleasure coordinating this event. Thank you for your dedication to the program and for all of your hard work. Ohio has incredibly awesome Envirothon teams and we are extremely proud of all of you!

Sincerely,
The Ohio Envirothon Committee

The following email was sent as a follow up to team captains and advisors following oral presentations and virtual awards ceremony:

Boardman Team,

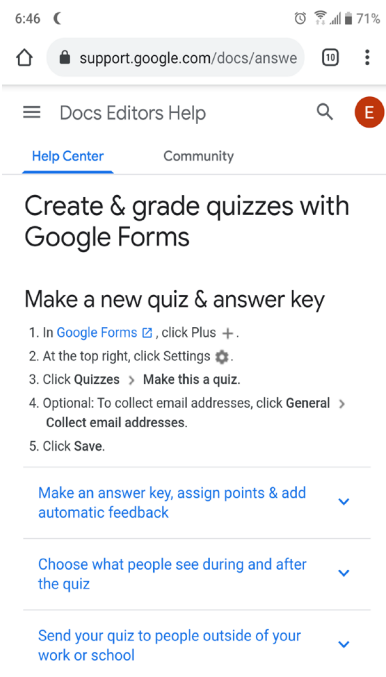
Attached are the judges' score sheets from your oral presentations, and also a spreadsheet of the final placings.

Thank you for your dedication to the program and for all of your hard work. Ohio has incredibly awesome Envirothon teams and we are extremely proud of all of you!

Sincerely,
The Ohio Envirothon Committee

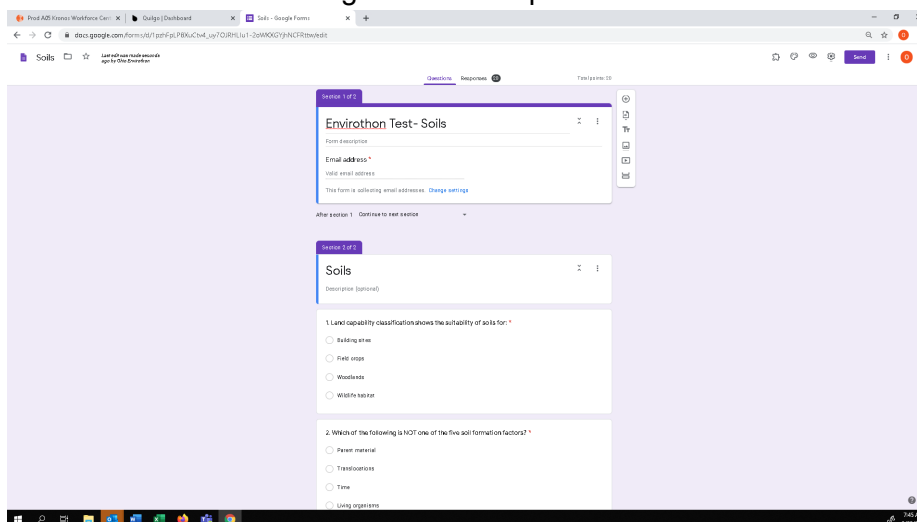
Online Station Tests Done in Google Forms – Summary of Steps:

- Created a free google account. Didn't use G Suite for education.
- Tests were created with Google forms.



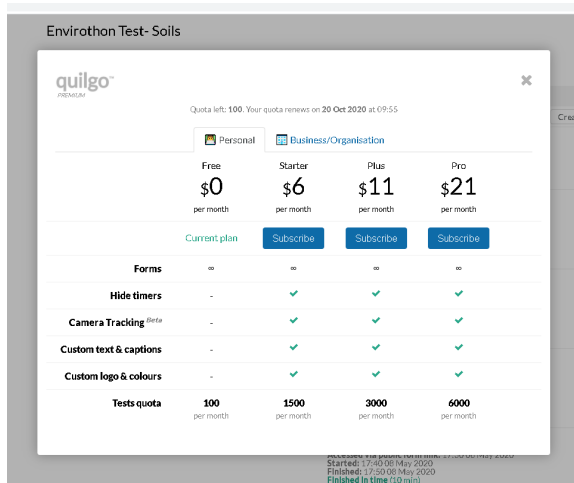
Grade quizzes

- Pictures, graphs, and links can all be added to the quizzes.
 - Just be careful with links and students accidentally closing out the quiz.
- Points can be assigned to each question



- G Suite Marketplace and use the add on Time.fy now known Quiglo:
https://workspace.google.com/marketplace/app/quiglo_timer_proctoring/992310177365

- Once you have the add on you can link the quizzes to the timer.
 - Quizzes have to be finished before they can be linked
- At this point you can adjust the time given to the quiz
- Quizzes were sent out with the public link
- Did have to upgrade from the free account to the basic account (\$6/ month) cancelled after the testing took place



Time.fy report:

| Respondent | Email | Info & Status |
|----------------|-------------------------------|--|
| Click to enter | rileybritt2020@gmail.com | 20 min - Submit anytime Accessible via public form link Accessed via public form link: 18:29 08 May 2020 Started: 18:30 08 May 2020 Finished: 18:47 08 May 2020 Finished in time (18 min) Always in focus Score: 7 |
| Click to enter | 20mullin@bcs-k12.org | 20 min - Submit anytime Accessible via public form link Accessed via public form link: 18:07 08 May 2020 Started: 18:08 08 May 2020 Finished: 18:28 08 May 2020 Finished with overtime (21 min) Always in focus Score: 11 |
| Click to enter | collin.bauerbach@fortrye... | 20 min - Submit anytime Accessible via public form link Accessed via public form link: 17:22 08 May 2020 Started: 17:23 08 May 2020 Finished: 17:40 08 May 2020 Finished in time (18 min) Always in focus Score: 10 |
| Click to enter | NeZoller21@BuckeyeCareerCa... | 20 min - Submit anytime Accessible via public form link Accessed via public form link: 16:14 08 May 2020 Started: 16:15 08 May 2020 Finished: 16:34 08 May 2020 Finished in time (20 min) Always in focus Score: 7 |
| Click to enter | 21schmil@docs.mt.noacsc.or... | 20 min - Submit anytime Accessible via public form link Accessed via public form link: 16:08 08 May 2020 Started: 16:09 08 May 2020 Finished: 16:28 08 May 2020 Finished in time (20 min) Always in focus Score: 10 |
| Click to enter | bsev0830qk@student.baaver... | 20 min - Submit anytime Accessible via public form link |

Open test link if you want to see what the quiz looks like
<https://quillgo.com/form/f0je8b6AbgfdXjae> (with timer)
<https://forms.gle/teWNpMwaoJ63cWcs7> (without timer)



Dear Envirothon Advisors,

As you have been previously made aware, due to the spread of the COVID-19 virus, Ohio cancelled all in-person Area Envirothon competitions, as well as the State competition that was scheduled for early June. Many states and Canadian provinces have cancelled their regional and state/provincial competitions across North America. The NCF-Envirothon scheduled for Nebraska in late July 2020 has also been cancelled.

However, Ohio has been working to keep Envirothon teams engaged by developing an online version of the test. The online test will consist of 100 questions, covering the five resource areas of: Aquatics, Forestry, Soils, Wildlife and this year's Current Environmental Issue: Water Resource Management – Local Control and Local Solutions. The **six** top scoring teams will be asked to develop and submit a five-minute presentation that will be judged virtually. Of those six, the top **three** teams (using both the online test and presentation score) will receive awards.

Registration Guidelines are as follows:

1. The Advisor or Team Captain will complete a Team Registration Form using the following link: <https://forms.gle/1fchcsVrV3SsAQcY7>
2. The Team Captain must provide an email address in order to receive the testing links and any further instructions for completing the test.
3. **Team Registration Forms must be completed and returned by Tuesday, May 5, 2020.**
4. Any resource material necessary for answering a specific test question will be provided via email. The use of calculators is permitted.

Testing Guidelines are as follows:

1. A Team Captain should be appointed by each team as the contact person for the test. Team Captains will receive the testing links via the email address they provide on the registration form. The Team Captain will access the test and select the answers to the test questions, with input from other team members via some type of online facilitation platform (Zoom, etc.) that the students are familiar with and comfortable using. It will be up to each team to decide how they will coordinate remotely.

Continued below.....

2. The online test will be available from 8 AM Wednesday, May 6 through 8 PM Friday, May 8, 2020). Each team will determine when they want to complete the test within the scheduled timeframe. Each of the five resource areas (stations) will have its own 20 question test. Once a station test is opened, it must be completed. The link to the test will not be able to be re-opened. Teams will have 20 minutes to complete each of the five tests.
3. As is the rule with all levels of Envirothon field testing, students are NOT to use any outside resources to assist them in completing the online test questions during the test. Advisors are NOT to assist teams during test taking in any way.

Sample Test:

We have prepared a sample 'test' for teams to complete in order to help them organize how they will work together remotely when it is time to take the actual test. The sample 'test' can be accessed using the following link: <https://forms.gle/3HToCEh8tjnnz5Jf6>

If your teams are unfamiliar with online collaboration programs, the Ohio Federation of Soil and Water Conservation Districts (OFSWCD) has a Zoom subscription available. Teams will need to schedule an appointment time to take the test within the three-day window. If your team wishes to use this conference feature, please contact Janelle Mead: jtmead@ofswcd.org

We fully realize that this is a much different way to organize the competition than we are used to. There have been concerns registered from Advisors regarding the potential for students to cheat by using external resources, as well as the potential for Advisors to assist teams in answering the test questions. Unfortunately, this will not be perfect, as there is no foolproof way to control those components of the competition that we have the ability to during in-person events. In these unprecedented times, we will be relying on all of you to maintain the standard of honesty and integrity that has always been a hallmark of Ohio's Envirothon teams. You know as advisors and teachers that the repercussions of cheating extend well beyond completion of the test, compromising student learning as well as the credibility of the program itself. We ask that you keep in mind that we are trying to provide a way to keep your students engaged in the Envirothon and natural resources, while still offering a fun and unique learning opportunity for teams.

The Ohio Envirothon Committee has been working diligently on this virtual Envirothon and we are very excited to be able to offer this testing opportunity to your teams! If you have any questions or are experiencing technical difficulties with the registration form or sample test, please contact: Emily Heppner: emily.heppner@agri.ohio.gov or Wendee Dodds: wzadanski@jeffersoncountyoh.com

As always, thank you for your dedication to your teams, and to Ohio's Envirothon program!

Ohio Envirothon Committee

Ohio Envirothon Team Registration Form

* Required

School Name *

Your answer

School Address *

Your answer

County *

Your answer

Team Name *

Your answer

Advisor Name *

Your answer



Advisor Email *

Your answer

Advisor Telephone Number *

Your answer

Team Captain Name and Grade Level *

Your answer

Team Captain Email Address: *

Your answer

Team Member Name and Grade Level:

Your answer

Team Member Name and Grade Level:

Your answer



Team Member Name and Grade Level:

Your answer

Team Member Name and Grade Level:

Your answer

Alternate Name and Grade Level:

Your answer

Alternate Name and Grade Level:

Your answer

Alternate Name and Grade Level:

Your answer

Alternate Name and Grade Level:

Your answer

Submit



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Envirothon Team Captains,

Welcome to Ohio's first (and hopefully only!) "virtual" Envirothon! As many of you who have participated in the past know, we love our natural resources in Ohio and we love the Envirothon, so we really wanted to find a way that your teams could still participate.

The online test will consist of 100 questions, covering the five resource areas of: Aquatics, Forestry, Soils, Wildlife and this year's Current Environmental Issue: Water Resource Management – Local Control and Local Solutions.

The **six** top scoring teams will be asked to develop and submit a five-minute presentation that will be judged virtually. Of those six, the top **three** teams (using both the online test and presentation score) will receive awards.

All of our "virtual" Envirothon participants will receive a bandana commemorating this event!

Testing Guidelines are as follows (please read carefully):

1. The Team Captain is the contact person for the test. The Team Captain will access the test and select the answers to the test questions, with input from other team members via screen-sharing using an online facilitation platform (Zoom, etc.) that your team is familiar with and comfortable using. It will be up to your team to decide how you will coordinate with one another remotely.
2. The test questions will be able to be answered and submitted by the Team Captain **ONLY**. If another team member tries to open the link, the test will lock.
3. The online test will be available from **8 AM Wednesday, May 6 through 8 PM Friday, May 8, 2020**. Your team will determine when you want to complete the test within the scheduled timeframe.
4. Each of the five resource areas (stations) will have its own 20 question test. **Once the link to a station test is opened, the test must be completed**. The link to the test will **not** be able to be re-opened once it has started. Testing links can be found on the last page of these instructions.
5. **Each station test will be timed, and teams will have a maximum of 20 minutes to complete each of the five tests**. You should plan for a maximum of 100 minutes of total potential testing time when setting up your online collaboration platform.
6. We have prepared a sample 'test' for your teams in order to help you organize how you will work together remotely. The sample 'test' can be accessed using the following link:
<https://forms.gle/3HToCEh8tjnnz5Jf6>

7. Remember, **testing begins** and **timing starts** once a testing link is **opened**. Please make sure your team members are already in your online collaboration meeting and ready to get to work **BEFORE** you click on the link to open the test, or you could risk losing precious time to complete it.
8. The testing platform is Google-based. For ease of use, it is recommended that the device being used to open the test is affiliated with a gmail account.
9. Please make sure that the equipment you are using to take the test (computer, etc.) is plugged in to prevent battery failure during the timed test.
10. Any resource material necessary for answering a specific test question is included in the email you received (Soil Survey of Paulding County). The use of calculators is permitted.
11. If you are experiencing technical difficulties with the links or test, please contact: Emily Heppner: emily.heppner@agri.ohio.gov
12. As is the rule with all levels of Envirothon field testing, your teams are NOT to use any outside resources to assist you in completing the online test questions during the test. Advisors are NOT to assist your team during test taking in any way.
13. In a typical Envirothon, there is a “grievance” process in place. Unfortunately, some situations will be out of our control using an online format. However, if you have a “grievance” that involves a particular question or answer choice, please have your Advisor submit any grievances using the following link:
https://docs.google.com/forms/d/e/1FAIpQLScuuSsOwXPfD4vqGM3fd3fTinED_owC9HAGs788HWH2ZSnf4A/viewform?usp=sf_link
All grievances must be filed by **9 PM on Friday, May 8, 2020**.

We realize that this is a much different way to organize the competition than all of us are used to. Unfortunately, this will not be perfect, as there is no foolproof way to control those components of the competition that we have the ability to during in-person events. In these unprecedented times, we will be relying on all of you to maintain the standards of honesty and integrity that have always been a hallmark of Ohio’s Envirothon teams!

The Ohio Envirothon Committee is very excited to be able to offer this testing opportunity to your teams. We hope that you learn a lot, continue to take an interest in natural resources and the environment, and have fun!

If you have any questions, please email: Wendee Dodds, wzadanski@jeffersoncountyoh.com

Sincerely,

The Ohio Envirothon Committee

Testing Links Below....

Testing Links (DO NOT OPEN until you are ready to start each test!):

Forestry

<https://timify.me/form/jQ7enVL2tu3NOIsL>

Current Environmental Issue (CEI)

<https://timify.me/form/nlCcaBI7VB7g10YS>

Wildlife

<https://timify.me/form/9wLoh9wRlrK7ummE>

Aquatics

<https://timify.me/form/ZTloJuoWU0UP0Jhi>

Soils

<https://timify.me/form/f0je8b6AbgfdXjae>

Envirothon Test - CEI

* Required

CEI

1. What water cycle process describes movement of ice/snow into the atmosphere as vapor? *

- ☐ Precipitation
- ☐ Evaporation
- ☐ Sublimation
- ☐ Evapotranspiration

2. What percentage of the world's water supply is freshwater? *

- ☐ 10%
- ☐ 5%
- ☐ 2.5%
- ☐ 1.25%

Pre-fill responses, then click "Get link"

3. What percentage of the world's water is actually available as surface water (rivers/lakes) and ready for the majority of public use? *

- ☐ 0.007%
- ☐ 1.25%
- ☐ 2.5%
- ☐ 0.07%

4. What water cycle process describes movement of water into the ground as groundwater? *

- ☐ Accumulation
- ☐ Infiltration
- ☐ Charging
- ☐ Grounding

5. What nutrients are primarily associated with runoff that degrades aquatic systems? *

- ☐ Nitrogen and Phosphorus
- ☐ Nitrogen and Cadmium
- ☐ Potassium and Phosphorus
- ☐ Iron and Ammonia

Pre-fill responses, then click "Get link"

6. What is the main benefit(s) of wetlands? *

- ☐ Increase biodiversity
- ☐ Act as nutrient filters
- ☐ Act as groundwater recharge points
- ☐ All of the above

7. In Grand Lake St Marys, OH – what is the range of phosphorus removed by wetlands in the spring and summer? *

- ☐ 0 to 5%
- ☐ 5 to 10%
- ☐ 50+%
- ☐ 99%

8. In Grand Lake St Marys, OH – which season exhibits the highest nutrient loading (concentration x stream volume) in streams? *

- ☐ Winter
- ☐ Spring
- ☐ Summer
- ☐ Fall

Pre-fill responses, then click "Get link"

9. Which statement best describes a saturated buffer? *

- ☐ edge of field practice that removes nutrients through surface wetland flow
- ☐ edge of field practice that removes nutrients through a tile bioreactor
- ☐ edge of field practice that removes nutrients through surface flow of water through the riparian area
- ☐ edge of field practice that removes nutrients through subsurface infiltration of tile water through the riparian area

10. Which of the following does not describe a site suitable for a saturated buffer? *

- ☐ minimum of 30 foot riparian area
- ☐ riparian at or near elevation of field
- ☐ gentle sloping riparian stream banks
- ☐ soils with high organic content

11. What percentage of nitrates do saturated buffers typically remove – on average? *

- ☐ 5 to 10%
- ☐ 10 to 20%
- ☐ 30 to 40%
- ☐ over 40%

Pre-fill responses, then click "Get link"

12. What process describes conversion of nitrate to harmless nitrogen gas? *

- ☐ adsorption
- ☐ supernitrification
- ☐ renitrification
- ☐ denitrification

13. About how many people worldwide struggle with freshwater scarcity? *

- ☐ about 1/3 of global population
- ☐ about 2/3 of global population
- ☐ about 1/4 of global population
- ☐ about 1/10 of global population

14. Which of the following approaches serve for agriculture to help address water scarcity? *

- ☐ increasing groundwater withdrawal and irrigation
- ☐ increasing redirection of surface flows into subsurface flow of tile
- ☐ recycling and reusing drainage water on fields
- ☐ increasing the amount of livestock raised

15. How does irrigation deplete groundwater resources? *

- ☐ withdrawing at a higher rate than charging
- ☐ it does not interfere with groundwater resources
- ☐ groundwater is infinite
- ☐ by introducing contaminants

16. Roughly what percentage of Ohio watersheds are degraded from nutrient runoff? *

- ☐ about 25%
- ☐ about 50%
- ☐ 100%
- ☐ about 10%

17. When was the Clean Water Act signed into law? *

- ☐ 1963
- ☐ 1967
- ☐ 1972
- ☐ 1914

18. True or False. Bluegreen algae are not technically algae. *

- ☐ True

Pre-fill responses, then click "Get link"

19. On what area of pollution does the Clean Water Act focus? *

- ☐ Non-point source runoff
- ☐ Point source runoff
- ☐ Air quality emissions
- ☐ Industrial byproducts

20. True or False. The original source of water vapor on planet Earth was energized and fueled by release of and cooling of magma. *

- ☐ True
- ☐ False

Submission ID (skip this field) *

⚠ DO NOT EDIT this field or your time will not be recorded.

Your answer

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Envirothon Test- Aquatics

* Required

Aquatics

Identify this wetland amphibian species.



- ☐ Pickerel Frog
- ☐ Leopard Frog
- ☐ Wood Frog
- ☐ Northern Chorus Frog

Pre-fill responses, then click "Get link"

Soil Fertility is a measure of the level of essential plant nutrients that are available in a given soil sample. What are the three most common macronutrients measured in soil? They can also be responsible for HABs when they run off the surface of a field.

- ☐ Nitrogen, Calcium, Sulfur
- ☐ Nitrogen, Phosphorus, Potassium
- ☐ Potassium, Magnesium, Phosphorus
- ☐ Calcium, Phosphorus, Nitrogen

What are the common names of the three insect orders used by OEPA to perform a Rapid Bioassessment of a local stream?

- ☐ Stoneflies, Mayflies, and Caddisflies
- ☐ Stoneflies, Caddisflies, and Dragonflies
- ☐ Mayflies, Hellgrammites, and Stoneflies,
- ☐ Hellgrammites, Caddisflies, and Mayflies

Nitrogen, more specifically, the form nitrate (NO_3^-) is a type of nutrient required for plant growth, but is also an aquatic pollutant. There is a process by which nitrate (NO_3^-) in freshwater streams can be processed by naturally occurring microorganisms. Of the terms listed below, select the term that describes the process of nitrate (NO_3^-) being converted into nitrogen gas (N_2)?

- ☐ Nitrification
- ☐ Denitrification
- ☐ Nitrite
- ☐ Vaporization

What percentage of Earth's total fresh water is liquid and available for humans to utilize for everyday activities?

- ☐ 1.2%
- ☐ 30.1%
- ☐ 68.7%
- ☐ 96.5%

_____ are ephemeral wetlands that support unique and often rare plant and animal populations.

- ☐ Vernal Pools
- ☐ Cryptic Estuaries
- ☐ Floodplain Strata
- ☐ Riparian Dikes

Pre-fill responses, then click "Get link"

This _____ is often found on the first warm, wet, spring night in March in large groups traveling to their breeding grounds.



- ☐ Monke Salamander
- ☐ Yellow Salamander
- ☐ Spotted Salamander
- ☐ Jefferson Salamander

Pre-fill responses, then click "Get link"

This large nonvenomous snake is very aggressive when it feels threatened. Even at a young age they will strike.



- ☐ Eastern Massasauga
- ☐ Lake Erie Water Snake
- ☐ Northern Water Snake
- ☐ Hognose Snake

Pre-fill responses, then click "Get link"

Many tools are used for stream quality monitoring. Which tool is NOT used to assess a stream's health?

- ☐ Kick Seine
- ☐ Secchi Disk
- ☐ Biltmore stick
- ☐ Hester-Dendy Box

Ohio Governor Mike DeWine recently launched a program called H2Ohio, which is a water quality driven program to help reduce Harmful Algal Blooms (HABs) that have been occurring around the Buckeye State. HABs are not a new problem, but have been a problem for several years. Which concern below is NOT an issue regarding HABs?

- ☐ Cyanobacteria that makeup HABs are known to secrete toxins that have been known to cause harm, even death, to pets, livestock and humans.
- ☐ HABs found in lakes and rivers are known to add nutrients into the aquatic system providing nutrients for other species of aquatic life.
- ☐ HABs decrease the available oxygen within lakes and streams, this results in fish deaths.
- ☐ HABs are common known to cause skin irritations when an individual comes into contact with a HAB on the water.

According to the Ohio EPA, the top 5 aquatic life impairment causes in Ohio's streams are:

- ☐ Siltation/sediment, nutrients, habitat modification, hydromodification, and organic enrichment/dissolved oxygen (DO)
- ☐ Paper, glass, tires, styrofoam, and cardboard
- ☐ Sand, toys, bicycles, tools, and refrigerators
- ☐ PH, conductivity, rocks, chemicals, and oil

Coarse substrates within a stream include:

- ☐ Sand, silt, and muck
- ☐ Silt, bricks, and logs
- ☐ Boulders, cobble, and gravel
- ☐ Logs, muck, and silt

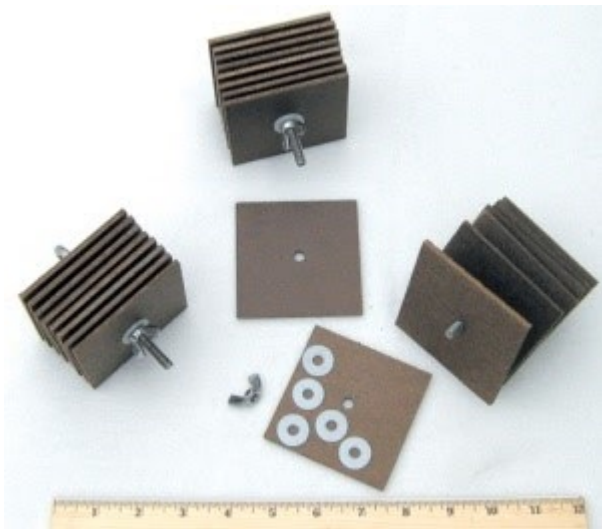
The following are examples of instream cover types:

- ☐ Umbrellas, tires, and bricks
- ☐ Riffles, trash, and runs
- ☐ Undercut banks, deep pools, rootwads, and overhanging vegetation
- ☐ Boulders, clouds, and trees

In Ohio, a Primary Headwater Habitat Stream is defined as a stream

- ☐ With a width less than 2m
- ☐ With a drainage area less than 1 square mile
- ☐ Any first order stream
- ☐ Fed by springs

The following is a set of Hester-Dendy multi-plate water sampling devices. What are these used for in a stream?



- ☐ They provide a medium for the growth and collection of coliform bacteria
- ☐ They create a riffle effect upstream of oxygen sampling sites
- ☐ They determine the erosion rates in water with a high sediment load
- ☐ They provide for the colonization and collection of benthic macroinvertebrates

A bog is a rare wetland type in Ohio. Which set of descriptors best describes this ecosystem?

- ☐ No hydrologic inflows or outflows, dominated by sphagnum moss, acidic, very low nutrient ecosystems
- ☐ Fed primarily by groundwater, dominated by sedges, cedars
- ☐ Nutrient rich, semi-permanently flooded, dominated by cattails
- ☐ Forested, seasonally flooded, dominated by pin oaks, elms, red maples, great amphibian breeding locations

Which statement best describes the relationship between groundwater and headwater streams?

- ☐ Headwater streams can be intermittent flowing because any rainfall or snowmelt is absorbed into the groundwater table, sometimes leaving the headwater segment dry
- ☐ As ground water recharges and rises within the headwater reach, water returns to the headwater stream
- ☐ If a rainfall event follows a dry spell, stream flow starting points will move upward in a channel due to the ground-water system becoming saturated
- ☐ All of the above

Wetland mitigation is used by developers to replicate a similar functioning wetland elsewhere within a watershed. If a groundwater dependent wetland is mitigated, where should it be replicated?

- ☐ Along a stream in the same watershed
- ☐ Anywhere in the State of Ohio because we have lost a lot of wetlands already
- ☐ In a similar ground-water discharge area
- ☐ At the lowest elevation of the watershed

Pre-fill responses, then click "Get link"


Which of the following is the major reason for algal blooms?

- ☐ Presence of heavy metals
- ☐ Contamination by pathogens
- ☐ Eutrophication
- ☐ Soil erosion

Which statement best describes the relationship between groundwater and headwater streams?

- ☐ Headwater streams can be intermittent flowing because any rainfall or snowmelt is absorbed into the groundwater table, sometimes leaving the headwater segment dry
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- ☐ If a rainfall event follows a dry spell, stream flow starting points will move upward in a channel due to the ground-water system becoming saturated
- ☐ All of the above

Submission ID (skip this field) *

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Your answer

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Envirothon Test- Forestry

* Required

Forestry

1. Timber Stand Improvement (TSI) is a process by which you complete pre-commercial projects that improve the health of a forest. This can include killing non-native invasive species, killing unacceptable growing stock, and killing vines that can harm timber trees. What is the LEAST likely tool used to perform TSI? *

- ☐ Basal bark herbicide treatment
- ☐ Broadcast herbicide treatment
- ☐ Cut stump herbicide treatment
- ☐ Girdling or frilling existing woody vegetation

2. When utilizing basal bark treatments, which of these is the greatest concern? *

- ☐ The basal area of the stand
- ☐ Damaging non-target plants
- ☐ Sap flow of the target plants
- ☐ The spacing of cuts on the plants

Pre-fill responses, then click "Get link"

3. Right Tree, Right Place: Tree selection depends greatly on site location in urban forestry practices. In an urbanized environment, the factors to determine an appropriate species might be different than those that could be suitable in other areas. Which of the following species would be a good selection for an urban tree planting initiative in Ohio? *

- ☐ Ginko (female)
- ☐ Serviceberry
- ☐ Catalpa
- ☐ Osage Orange

4. Even-aged forest management enhances habitat for wildlife species such as eastern cottontail rabbits, prairie warblers, and northern harriers by creating which of the following? *

- ☐ Early-successional forests
- ☐ Late-successional forests
- ☐ Mature forests
- ☐ Old growth forests

- ☐ Option 1

Pre-fill responses, then click "Get link"

5. What is one reason that *Pinus strobus* might be a poor choice as a landscaping tree in certain urban environments? *

- ☐ Needles are toxic if ingested
- ☐ Susceptibility to needle chlorosis caused by acidic pH
- ☐ Vulnerability to road salt
- ☐ Poor habitat for bird species commonly found in urban areas

6. If a tree to be harvested for timber is said to have a merchantable height of 3.5 logs, what is the total length of merchantable logs (Doyle Rule)? *

| | | 10 | 11 | 12 | 13 | 14 |
|----------------|---|----|----|----|----|-----|
| 1 16 FOOT LOG | For average midwest timber used scale direct. | 14 | 22 | 28 | 36 | 40 |
| 2 16 FOOT LOGS | For tall timber with little taper add 10 percent. | 20 | 32 | 40 | 50 | 56 |
| 3 16 FOOT LOGS | For short timber with much taper deduct 10 percent. | 22 | 38 | 52 | 72 | 92 |
| 4 16 FOOT LOGS | | | | 56 | 80 | 104 |
| 5 16 FOOT LOGS | | | | | | |

- ☐ 56 feet
- ☐ 28 feet
- ☐ 35 feet
- ☐ 48 feet

7. Wildlife species are often associated with specific woodland successional stages because of the type of habitat provided by each stage. Early successional forests provide more _____ than older forests. *

- ☐ Downed woody debris and leaf litter
- ☐ Earthworms and insects
- ☐ Fruit, seeds, and woody browse
- ☐ Nuts, acorns, and tree cavities

8. The Envirothon helps familiarize students with tools used by professionals in a given natural resources field. What is the Envirothon student in the photo attempting to determine? *



- ☐ The basal area per acre of the timber stand
- ☐ The diameter of a tree
- ☐ The age of a tree based on height
- ☐ The merchantable height of a tree

Pre-fill responses, then click "Get link"

9. Non-native invasive species cause a plethora of issues in the forest, including impeding the natural regeneration of the forest by shading-out tree seedlings and stealing water and nutrients from them. Some of Ohio's invasive plant species also leaf out very early in the spring, shading out and eventually killing spring wildflowers. Another serious issue caused by non-native invasive species is that they can have a negative impact on bird populations. Which invasive species listed below has a bright red berry that is attractive to berry-eating songbirds, but has a much lower nutritional value than many native species that also have red berries? *

- ☐ Bush honeysuckle
- ☐ Privet
- ☐ Winterberry
- ☐ Tree-of-heaven

10. Tree planting of hardwoods is often done at 8-foot by 8-foot spacing. Given that there are 43,560 feet per acre, how many trees would be needed to plant a field 6.5 acres in size? *

- ☐ 7,215 trees
- ☐ 4,000 trees
- ☐ 6,149 trees
- ☐ 4,424 trees

11. Ohio has a very strong timber industry with many of our tree species being commercially viable for a variety of markets. There are strong markets for timber that is used for making furniture, barrels, pallets, veneer, and log homes. Identify this native tree, marked with pink ribbon. *



- ☐ Eastern cottonwood
- ☐ Black walnut
- ☐ Sassafras
- ☐ Black gum

Pre-fill responses, then click "Get link"

12. How would you determine the size class at DBH of the tree from the above question? *

- ☐ Read the measurement on a tree scale stick, standing 12 inches away from the tree, and keeping the stick 4 ½ feet above ground
- ☐ Read the measurement on a tree scale stick, holding it 25 inches from your eye, and 4½ feet above ground on the uphill side of the tree
- ☐ Read the measurement on a tree scale stick, holding it 25 inches from your eye, and 4½ feet above ground facing the tree from any side
- ☐ Read the measurement on a tree scale stick, holding it 25 inches from your eye, and measuring 4½ feet above ground on the downhill side of the tree

Pre-fill responses, then click "Get link"

12. Given a DBH of 26 and merchantable height of three 16-foot logs, what is the volume of the tree from Question #15 in Board Feet (BF) using the Doyle Rule Volume Chart below? *

| Table 1. Standing Tree Board Foot Volumes—Doyle Rule | | | | | | | | |
|--|------------------------|-----|-------|-------|-------|-------|-------|-------|
| Dbh (inches) | Number of 16-Foot Logs | | | | | | | |
| | 1/2 | 1 | 1-1/2 | 2 | 2-1/2 | 3 | 3-1/2 | 4 |
| Board Feet | | | | | | | | |
| 12 | 20 | 30 | 40 | 50 | 60 | | | |
| 14 | 30 | 50 | 70 | 80 | 90 | 100 | | |
| 16 | 40 | 70 | 100 | 120 | 140 | 160 | 180 | 190 |
| 18 | 60 | 100 | 130 | 160 | 200 | 220 | 240 | 160 |
| 20 | 80 | 130 | 180 | 220 | 260 | 300 | 320 | 360 |
| 22 | 100 | 170 | 230 | 280 | 340 | 380 | 420 | 460 |
| 24 | 130 | 220 | 290 | 360 | 430 | 490 | 540 | 600 |
| 26 | 160 | 260 | 360 | 440 | 520 | 590 | 660 | 740 |
| 28 | 190 | 320 | 430 | 520 | 620 | 710 | 800 | 880 |
| 30 | 230 | 380 | 510 | 630 | 740 | 840 | 940 | 1,040 |
| 32 | 270 | 440 | 590 | 730 | 860 | 990 | 1,120 | 1,220 |
| 34 | 300 | 510 | 680 | 850 | 1,000 | 1,140 | 1,300 | 1,440 |
| 36 | 350 | 580 | 780 | 970 | 1,140 | 1,310 | 1,480 | 1,640 |
| 38 | 390 | 660 | 880 | 1,100 | 1,290 | 1,480 | 1,680 | 1,860 |
| 40 | 430 | 740 | 990 | 1,230 | 1,450 | 1,660 | 1,880 | 2,080 |
| 42 | 470 | 830 | 1,100 | 1,370 | 1,620 | 1,860 | 2,100 | 2,320 |

From: Ashley, Burl S. 1980. *Reference handbook for foresters*. USDA NA-FR-15. 35 pp.

- ☐ 660 BF
- ☐ 590 BF
- ☐ 440 BF
- ☐ 540 BF

14. A _____ forest is a forested area of land adjacent to a body of water like a stream, river, lake, marsh, or estuary. These can look very different in different ecoregions across the globe. However, they all essentially do the same job. They prevent erosion, slow down surface water runoff, filter nutrients out of water, shade the bodies of water, and create high value wildlife habitat. The forest in which you are standing is one of these forests. In Ohio, they are generally classified as Bottomland Hardwood Forests. *



- ☐ Riparian
- ☐ Flooded
- ☐ Upland

Pre-fill responses, then click "Get link"

15. During a plot cruise using a 10 basal area factor (BAF) prism, a forester records a total of 150 trees on 10 plots. What is the average basal area for the forest stand based on this information? *

- ☐ 1,500 square feet
- ☐ 15 square feet
- ☐ 150 square feet
- ☐ Not enough information

16. Oak wilt is a deadly fungal disease and a very serious threat to the hardwood industry in Ohio. All oaks are susceptible but the disease turns quickly fatal for all species in the red oak group. Oak wilt can be recognized by rapid wilting and loss of leaves beginning at the top of the tree, followed by the death of the entire tree within a few weeks. Dead and dying oak trees will display spore-bearing fungal mats with pressure pads to disperse the pathogen. Sap-feeding beetles are attracted to these sweet-smelling spore mats, moving spores to uninfected areas. The disease also spreads underground through roots and root grafts to nearby oak trees. Which of the following methods can discourage overland spread of the fungus? *

- ☐ Avoid pruning or wounding oak trees between April 15 and October 1
- ☐ Cut and stack the wood from diseased trees to be burned in the winter.
- ☐ Sever root contacts between diseased and healthy trees using a trencher
- ☐ Spray the diseased tree with herbicide

17. In a forest environment, the best way to maximize wood volume growth is to: *

- ☐ Using soil test recommendations, broadcast fertilizer uniformly throughout the stand
- ☐ Eliminate the competition in the crown space of the dominant and co-dominant trees
- ☐ Ensure that adequate moisture is available to the stand
- ☐ Remove all undesirable understory trees

Pre-fill responses, then click "Get link"

18. What combination of logging Best Management Practices should be used to permanently restore the haul road area in the picture below in order to correct the soil erosion problem? *



- ☐ Wooden Mud Mat and Culvert
- ☐ Water bars and Seeding
- ☐ Filter strip and Rolling Dip
- ☐ Silt fence and Straw Bales

Pre-fill responses, then click "Get link"

19. A logger shows up at your door and says that he would like to cut some of your trees while in the area. He will pay you a flat rate for all of the trees he takes. You say yes, and he cuts all of the valuable trees in your woods, and while doing so, skids the logs down a steep hill and through a stream, and piles the slash in the stream channel. Under Ohio's Forestry Pollution Abatement rules, who is responsible for restoring the area? *

- ☐ The logger
- ☐ The Ohio Department of Natural Resources
- ☐ You, as the landowner
- ☐ The Ohio Environmental Protection Agency

Pre-fill responses, then click "Get link"

20. How would you determine the merchantable height of the tree from Question #11?



- ☐ Step as far back as you need to in order to see the top of the tree. Hold the tree scale stick vertically, 25 inches away from your eye, with the base of the stick in line with the ground.
- ☐ Stand 100 feet away from the tree and hold the tree scale stick vertically, 12 inches from your eye, with the base of the stick in line with the top of the stump.
- ☐ Stand 66 feet away from the tree and hold the tree scale stick vertically, 25 inches away from your eye, with the base of the stick in line with the top of the stump.
- ☐ Standing 66 feet away from the tree, and hold the tree scale stick vertically, 12 inches from your eye, with the base of the stick in line with the top of the stump.

Submission ID (skip this field) *

⚠ DO NOT EDIT this field or your time will not be recorded.

Your answer

Pre-fill responses, then click "Get link"

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Envirothon Test- Soils

* Required

Soils

1. Land capability classification shows the suitability of soils for: *

- ☐ Building sites
- ☐ Field crops
- ☐ Woodlands
- ☐ Wildlife habitat

2. Which of the following is NOT one of the five soil formation factors? *

- ☐ Parent material
- ☐ Translocations
- ☐ Time
- ☐ Living organisms

Pre-fill responses, then click "Get link"

3. Well aggregated soils improve infiltration allowing air and water to move into and through the soil thereby reducing runoff and erosion. Which of the following practices improves aggregation in soil? *

- ☐ Allowing the soil to dry excessively
- ☐ Tilling and/or driving over the soil when it is wet
- ☐ Removing organic residues from the soil surface
- ☐ Growing plants that have a fibrous root system

4. Which of the following statements best describes the "A" horizon of soil? *

- ☐ The mineral horizon or layer, excluding indurated bedrock that is little affected by soil forming processes.
- ☐ The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.
- ☐ The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with mineral material.
- ☐ An organic layer of fresh decaying plant residue.

5. Wetlands are often referred to as the Earth's kidneys because they filter and purify surface water. Ohio has lost an estimated 90% of its wetlands. Soils that form under wet conditions that have slow permeability with the capacity to store and sustain desired water levels provide the best opportunities for wetland restoration. What is the name given to these wetland soils? *

- ☐ Hydric soils
- ☐ Hydrophytic soils
- ☐ Clay soils

Pre-fill responses, then click "Get link"

6. Dynamic soil properties are soil properties that can change over time with management practices and land use. Which of the following is an example of a dynamic soil property? *

- ☐ Texture
- ☐ Structure
- ☐ Clay Mineralogy
- ☐ Drainage Class

7. Cation Exchange Capacity (CEC) is a measure of the cations that are held by the soil and often is used to determine the nutrient holding capacity of a soil. Using the Paulding County Soil Survey, which soil listed below has the highest CEC rating?

- ☐ Gr—Granby loamy sand, clayey substratum
- ☐ HaA—Haskins loamy sand, 0 to 2 percent slopes
- ☐ Ht—Hoytville silty clay
- ☐ OtB—Ottokee loamy sand, 0 to 6 percent slopes

8. What type of soil map unit is defined as consisting two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps? *

- ☐ Miscellaneous areas
- ☐ Undifferentiated group
- ☐ Association
- ☐ Complex

Pre-fill responses, then click "Get link"

9. What soil series in Paulding County has a taxonomic classification of: Fine, illitic, nonacid, mesic Aeric Fluvaquents? *

- ☐ Defiance Series
- ☐ Flatrock Series
- ☐ Haskins Series
- ☐ Lucas Series

10. Which of the following soil types is most commonly found (in terms of acres), in Paulding County? *

- ☐ BeB
- ☐ NpB
- ☐ OtB
- ☐ Pc

11. Which of the following is a structureless type of soil aggregate? *

- ☐ Massive
- ☐ Platy
- ☐ Blocky
- ☐ Prismatic

Pre-fill responses, then click "Get link"

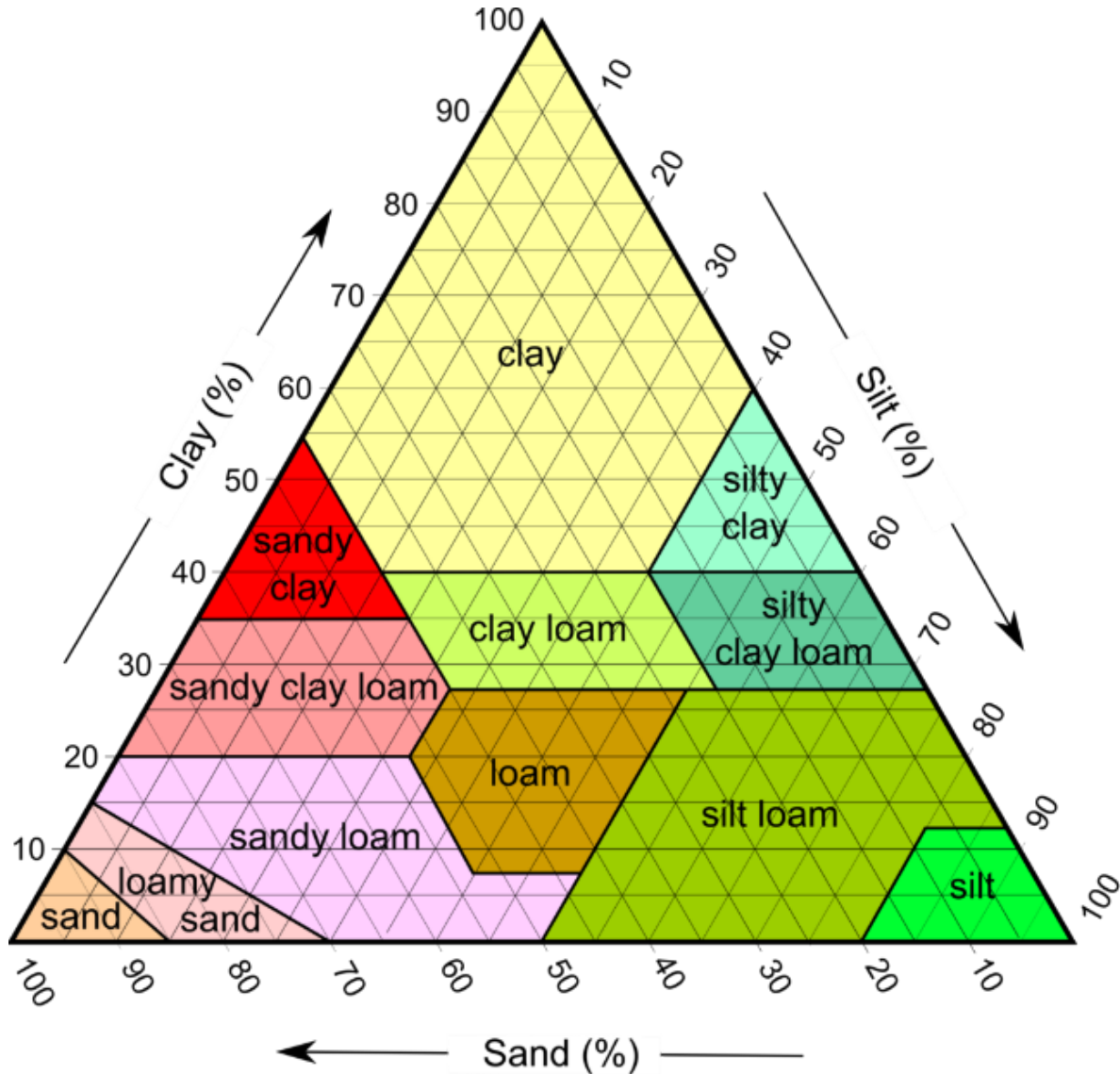
12. What is the recommended pH for corn, wheat and soybean production in Ohio's organic type topsoils? *

- ☐ 5.0
- ☐ 5.3
- ☐ 6.1
- ☐ 6.5

13. Soil erosion is caused by rainwater running off unprotected soil surfaces carrying away soil particles, organic matter and plant nutrients. This is an example of what type of pollution? *

- ☐ Point source pollution
- ☐ Sediment source pollution
- ☐ Wet point source pollution
- ☐ Non-point source pollution

14. With the soil texture triangle, scientists have created classes which break the distribution of particle sizes (soil textures) into 12 categories. The soil texture triangle is one of the tools that soil scientists use to visualize and understand the meaning of soil texture names. *



Sandy Loam

Silty Clay Loam

Sandy Clay

40% Clay, 50% Sand,
10% Silt

☐☐☐

70% Sand, 15% Silt,
15% Clay

☐☐☐

10% Sand, 50% Silt

Pre-fill responses, then click "Get link"

15 Which of the following best defines the term soil? *

- ☐ A natural body composed of mineral & organic matter, liquid, and gases that occurs on the land surface, occupies space, and has the ability to support plant growth.
- ☐ A natural body composed of mineral & organic matter that is usually tracked into homes.
- ☐ A natural body composed of mineral & inorganic matter that does not support plant growth.
- ☐ A natural body composed of mineral matter that serves as a medium for plant growth.

16. What gives topsoil its dark brown color? *

- ☐ Sand
- ☐ Silt
- ☐ Humus
- ☐ Redox Reactions

17. Which of the following soils is NOT considered prime farmland in Paulding County? *

- ☐ Lucas silt loam, loamy substratum, 0 to 2 percent slopes
- ☐ Rossburg silt loam, occasionally flooded
- ☐ Belmore loam, till substratum, 2 to 6 percent slopes
- ☐ Tedrow loamy sand, 0 to 3 percent slopes

Pre-fill responses, then click "Get link"

18. Soil forming material deposited by stream action is called? *

- ☐ colluvium
- ☐ gravel
- ☐ sand
- ☐ alluvium

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Your answer

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Envirothon Test-Wildlife

* Required

Wildlife

1. Amphibians such as salamanders are particularly sensitive to water quality and pollution due to certain characteristics. This sensitivity also makes them indicators of good water quality. Which of these characteristics DOES NOT make them sensitive to water quality? *

- ☐ Absorbing oxygen through their skin
- ☐ Absorbing water through their skin
- ☐ Laying eggs that are dependent on water
- ☐ Living most of their adult life in bodies of water

2. Wetland habitat is a critical component to most of Ohio's wildlife species. Supporting over 30 state listed threatened and endangered species, wetland habitats can be divided into several types. One such type is a vernal pool. Vernal pools can be defined as: *

- ☐ A wetland habitat where the land's fresh waters meet and mix with the water of Lake Erie.
- ☐ A wetland habitat that fills with water annually from precipitation and runoff, then dries out no less than once biannually and does not support a population of predatory fish.
- ☐ A wetland habitat that is dominated by trees taller than 15 feet.
- ☐ A wetland habitat that has water depths of less than six inches for an extended period during the growing season.

Pre-fill responses, then click "Get link"

3. This species of bird decreased drastically in population in the 1950s and 1960s due to pesticide contamination, though their numbers have risen in recent years, in part due to the increase in man-made nesting platforms. They nest primarily near bodies of water and their diet consists mostly of fish: *

- ☐ Peregrine Falcon
- ☐ Osprey
- ☐ Red-tailed Hawk
- ☐ Mallard

4. Lead is a heavy metal not only toxic to humans, but wildlife as well. Which of the following species can only be hunted with nontoxic (lead free) bullets/shot in an effort to minimize lead poisoning/pollution? *

- ☐ Wood Ducks
- ☐ Mourning Doves
- ☐ Fox Squirrels
- ☐ White-tailed Deer

5. River Otters were _____ from Ohio by the early 1900's. The Ohio Department of Natural Resources Division of Wildlife helped to successfully reintroduce River Otters to the State of Ohio in 1986 over a seven-year period, by capturing them in Arkansas and Louisiana with modern foothold traps. *

- ☐ Extirpated
- ☐ Extinct
- ☐ Excised

Pre-fill responses, then click "Get link"

6. Ohio only has three venomous snakes. They are: *

- ☐ Queen Snake, Cottonmouth, Timber Rattlesnake
- ☐ Northern Copperhead, Eastern Massasauga Rattlesnake, Timber Rattlesnake
- ☐ Eastern Massasauga Rattlesnake, Water Moccasin, Northern Copperhead
- ☐ Eastern Garter Snake, Timber Rattlesnake, Northern Water Snake
- ☐ Northern Water Snake, Cottonmouth, Northern Copperhead

Pre-fill responses, then click "Get link"

7. Identify this relatively common species of butterfly in Ohio. *



- ☐ Eastern Tiger Swallowtail
- ☐ Spicebush Swallowtail
- ☐ Zebra Swallowtail
- ☐ Black Swallowtail

Pre-fill responses, then click "Get link"

8. Which of the following species is the only host plant for the caterpillar of the butterfly identified in the above question? *

- ☐ Sugar Maple, *Acer saccharum*
- ☐ Chinkapin Oak, *Quercus muehlenbergii*
- ☐ Pawpaw, *Asimina triloba*
- ☐ Common Milkweed, *Asclepias syriaca*

9. Which of the following is NOT true about Epizootic Hemorrhagic Disease (EHD)? *

- ☐ EHD does not affect humans nor impact the safety of consumed deer.
- ☐ Carcasses are often found near water.
- ☐ EHD is spread by prions carried throughout the air.
- ☐ EHD is caused by a virus transmitted from a biting midge.

10. A rare member of the order Chiroptera can be sighted in forests and open habitats such as river corridors and wetlands while feeding on insects. This insectivore is rarely found in caves. Which of the species below would fit this description? *

- ☐ Streamside Salamander
- ☐ Little Brown Bat
- ☐ Eastern Screech Owl
- ☐ Purple Martin

Pre-fill responses, then click "Get link"

11. Delayed implantation takes place when the embryo does not implant immediately following fertilization but remains in a state of suspended growth or diapause. A diapause allows for birth to occur during the most favorable conditions. Which native, wild mammalian species below is associated with delayed implantation? *

- ☐ Gray Fox
- ☐ Black Bear
- ☐ Bobcat
- ☐ Fox Squirrel

12. Signed into law on September 2, 1937, the Pittman-Robertson Act created an excise tax that provides money to states as federal aid for the management, acquisition, restoration and maintenance of wildlife habitats and for wildlife studies. The Pittman-Robertson Act is a tax on which of the following sporting equipment? *

- ☐ Firearms
- ☐ Archery equipment
- ☐ Fishing tackle
- ☐ Both Firearms and Archery Equipment

13. Glochidia are an important phase in the life cycle of a(n): *

- ☐ Aquatic insect
- ☐ Freshwater mussel
- ☐ Juvenile fish
- ☐ Crayfish

14. Identify the family of the animal skin pictured: *



- ☐ Mustelidea
- ☐ Felidae
- ☐ Canidae

Pre-fill responses, then click "Get link"

15. Identify the species of amphibian in the picture: *



- ☐ Mudpuppy
- ☐ Eastern Red Backed Salamander
- ☐ Marbled Salamander
- ☐ Spotted Salamander

Pre-fill responses, then click "Get link"

16. Identify the mammal that created the track shown *



FRONT



HIND

- ☐ Muskrat
- ☐ Fox Squirrel
- ☐ American Beaver
- ☐ Virginia Opossum

Pre-fill responses, then click "Get link"

17. Invasive plants typically grow aggressively and can outcompete with native plant species. They often have little benefit to wildlife due to lack of nutrition and structure. Please identify the invasive species using the leaf and seed photos provided above. *



- ☐ Black Walnut
- ☐ Tree of Heaven
- ☐ Smooth Sumac
- ☐ Paulownia

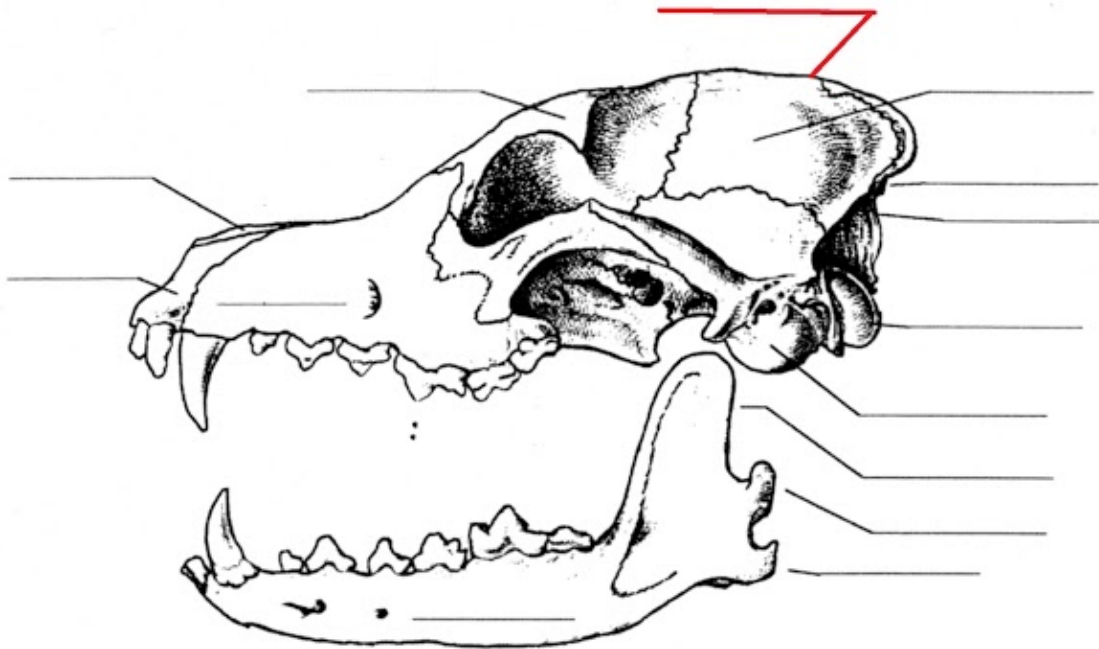
18. The species of bird shown above is traditionally associated with what type of Ohio ecosystem? *



- ☐ Prairie
- ☐ Wetland
- ☐ Farmland
- ☐ Woodland

Pre-fill responses, then click "Get link"

Skulls are a valuable tool when identifying wildlife. The bone structure can be a significant clue to how the animal is adapted to survive. Use the chart below to answer the following two questions.



19. Identify the crest of the skull highlighted by the red line. *

- ☐ Palatine crest
- ☐ Occipital crest
- ☐ Sagittal crest
- ☐ Jugal crest

20. Reviewing the dentition of the skull above, to which group would this animal belong? *

- ☐ Omnivore
- ☐ Carnivore
- ☐ Detritivore
- ☐ Herbivore

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Your answer

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“Virtual” Envirothon Grievance Form

- A. Only Team Advisors may file a written Grievance.
- B. Grievances must be submitted on this form no later than 9 PM on Friday, May 8, 2020.
- C. No grievance will be accepted without a written potential solution.
- D. The decision of the Grievance Committee/Ohio Envirothon Committee is final.

Team Name filing the Grievance:

Advisor Name:

If filed against another team, what is that Team Name:

Advisor Name:

Description of Grievance:

Suggested resolution proposed by team filing the grievance:

Active Link to form:

https://docs.google.com/forms/d/e/1FAIpQLScuuSsOwXPFd4vqGM3fd3fTinED_owC9HAGs788HWH2ZSnf4A/viewform

Ohio Envirothon Team Registration Form- Presentation

* Required

School Name *

Your answer

Team Name *

Your answer

Advisor Name *

Your answer

Team Captain Name and Grade Level *

Your answer

Team Captain Email Address: *

Your answer



Team Member Name

Your answer

Team Member Name

Your answer

Team Member Name

Your answer

Team Member Name

Your answer

Submit

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Oral Presentation Guidelines (please read carefully):

1. The Oral Presentation preparation and judging will take place June 8 – 9, 2020.
2. Teams will be given a presentation scenario based on this year's Current Environmental Issue: *Water Resource Management – Local Control and Local Solutions*. The link to learning objectives and study resources can be found here:
<https://envirothon.org/the-competition/current-competition/>
3. The Team Captain will again be the contact person, and will receive the presentation scenario at the email address that was provided to us for the online test. If the email provided was a school email that you will no longer have access to once school is out, please email wzadanski@jeffersoncountyoh.com with an updated email address.
4. **The scenario will be presented to all six teams during a Zoom meeting scheduled for Monday, June 8th at 9 AM.** During the meeting, we will hold the drawing to determine what time your team will present the following day. There will also be a period for questions. The meeting is for team members only.
5. Immediately following the Zoom meeting, the written scenario and any relevant resource materials will be emailed to Team Captains. Team Captains will also be sent the Zoom meeting information for your presentation time.
6. Your team will have **24 hours** to prepare your presentation, and it will be up to you to decide how you will coordinate with one another remotely. You may choose to use power point to assist you in your presentation, or make a five-minute video. You may also choose to simply use notecards to assist with your verbal presentation. **All five team members must participate to be eligible for awards.**
7. **All teams must turn in their final presentations via email by 9 AM on Tuesday, June 9, 2020 to the following email address: envirothonohio@gmail.com**
If your team is using notecards or other written materials to assist you in giving your presentation, clear photos of those must be emailed in as well. This is to ensure that all teams have equal preparation time. Presentations may not be changed after they have been submitted.
8. **Presentations and judging are scheduled for Tuesday, June 9th, from 12 to 3 PM.** The presentations will be recorded. Your team is asked to arrive in the Zoom "waiting room" five minutes prior to your presentation time.

9. Your team will give your five-minute presentation via a Zoom meeting set up by the Ohio Federation of Soil and Water Conservation Districts (OFSWCD). The judging panel will be comprised of three judges. In addition to the three judges, a time-keeper will be present in the Zoom presentation “room”, as well as two representatives from the Ohio Envirothon Committee and your Advisor, if you so choose. The representatives from the Ohio Envirothon committee will be following along with your presentation to ensure that nothing has been changed from the final version your team submitted.
10. The timing of each team’s presentation will be monitored by the time-keeper, who will instruct you when to start. Teams will receive a 10-point reduction for a presentation that is less than 4 minutes or more than 6 minutes. At 4 minutes, the timekeeper will show a green card. At 5 minutes, a yellow card, and at 6 minutes, your team will receive a red card and be asked to stop.
11. Your team should be prepared to answer questions on your presentation. The question session will be in-depth, to help determine the level of learning that has been achieved on the material that your team has presented.
12. Judges will not know which school you are from. Please be sure not to identify your school with shirts, references during your presentation, etc.
13. The final Oral Presentation score will be an average of the judges’ scores. To determine the competition winners, online test scores will be combined with the Oral Presentation scores.
14. The awards schedule is as follows:

First Place: Each team member will receive \$100 and an additional \$300 will be awarded to the team.

Second Place: Each team member will receive \$75, and an additional \$300 will be awarded to the team.

Third Place: Each team member will receive \$50, and an additional \$300 will be awarded to the team.

The original intent of the team awards was to provide money to be used towards a team experience such as kayaking at a state park, a team trip to the Wilds, etc. However, with the uncertain times that we are experiencing, we are leaving it up to each team to decide how you will use the funds.

15. You may use written or online resources to assist with preparation. Please credit any photos, etc. used in your presentation.
16. Please remember that **this is a team activity only**. Advisors, resource professionals, or other individuals are not to assist your team with preparation of your presentation in any way.
17. If your team is unfamiliar with the Zoom platform, the Ohio Federation of Soil and Water Conservation Districts (OFSWCD) has a subscription available. Please email Janelle Mead if your team needs to schedule a practice session to be better prepared to share your presentation via the "share" screen, etc. Janelle can be reached at: jtmead@ofswcd.org
18. If you have any questions, please email: Wendee Dodds: wzadanski@jeffersoncountyoh.com

Email with Information and Instructions for Oral Presentation Judges:

Good afternoon to each of you,

On behalf of the Ohio Envirothon Committee please accept my thank you for your willingness to serve as a judge for Ohio's first (and hopefully only!) virtual Envirothon competition. During the first week of May, twenty-eight teams from across the state participated in the online test covering the focus areas of aquatic ecology, wildlife, forestry, soils and current environmental land use issues.

The top six placing teams have advanced on to the Oral Presentation component of the competition. Teams will be given a presentation scenario based on this year's Current Environmental Issue: *Water Resource Management – Local Control and Local Solutions*. The scenario will be presented to all six teams during a Zoom meeting scheduled for Monday, June 8th at 9 AM. During the meeting, we will hold a drawing to determine what time each team will present the following day.

Teams will have 24 hours to remotely work together to prepare a five-minute presentation. They may use power point, make a five-minute video, or simply use notecards to assist with a verbal presentation. All five team members must participate to be eligible for awards.

All teams must turn in their final presentations to me via email by 9 AM on Tuesday, June 9, 2020. If a team is using notecards or other written materials to assist in giving their presentation, photos of those must be emailed in as well. This is to ensure that all teams have equal preparation time.

You will be judging the first team presentation beginning at 12 PM on Tuesday, June 9, 2020. Presentations are scheduled to be judged via Zoom every half hour until 3 PM.

Teams should be prepared to answer questions on their presentation. During a normal competition, students are sequestered for four hours to prepare, during which time they have no access to advisors or online resources. Because the students will not be sequestered during preparation and we have no oversight of whether or not they are communicating with advisors, etc., your question session should be in-depth, to help determine the level of learning that has been achieved on the material that each team has presented. Please score each team accordingly.

I have attached the scoring sheet for your reference. Each judge will score individually and the scores will be added and averaged for each team. Those scores will then be added to the team's field testing scores. Also for your reference, I have attached the presentation instructions that is provided to the teams, as well as connection information for each Zoom meeting judging session.

A time-keeper will be present, as well as a representative from the Ohio Envirothon Committee and the team Advisor, if the team so chooses.

If you have questions or require additional information, you may contact me either by email or my cell 740-512-4053 (text or call). I will be sending you a copy of the presentation scenario/problem later this week.

Thank you again for agreeing to assist with the Oral Presentation component of the program. We sincerely appreciate your support of the Envirothon!

Wendee Dodds
Ohio Envirothon Committee

Ohio Envirothon Team Presentation Scoring Sheet

| | | | |
|--------|--|---------|--|
| TEAM # | | JUDGE # | |
|--------|--|---------|--|

Scoring Description

- 0 – Not at all.
- 2 – Major misconceptions or gaps, ineffective, inadequate, inappropriate.
- 4 – Some misconceptions and flaws, minimally effective, somewhat appropriate.
- 6 – Complete and accurate, effective, adequate and appropriate.
- 8 – Complete, very detailed, logical, well supported and organized, highly effective.
- 10 – Profound, in-depth, done in an insightful manner, points to a most effective strategy.



| PREPARATION AND PRESENTATION OF PLAN (60 point maximum) | | CHECK SCORE | | | | | |
|--|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. How well did the presentation address or identify: | | 0 | 2 | 4 | 6 | 8 | 10 |
| • The current issue? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • All the players/interest groups/stakeholders affected by the problem? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • The major natural resource areas (soils/land use, wildlife, aquatic ecology, forestry)? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • The specific environmental problem and related issues regarding the problem? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • The interrelationship between the environment, natural resources, and the different natural resource management strategies? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Were references and resources cited in the team presentation? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | Subtotal | | | | | |
| APPLICATION OF DATA (80 point maximum) | | | | | | | |
| A. How well did the team demonstrate a solid understanding of: | | 0 | 2 | 4 | 6 | 8 | 10 |
| • The ecological/environmental issues related to the problem? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • The economic issues related to the problem, including the cost and benefits of the proposed plan, funding sources, cost of doing nothing, economic impacts on resources? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Social and/or cultural issues related to the situation (private property rights, traditions, urban issues, environmental justice)? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Political issues (regulations, mandates, impact on political system/community)? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. The team presented one unified, viable solution to the problem addressing the resource issue. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. The main points were clearly stated and supported, conclusions clearly defined and convincing. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Does the solution have the potential to be implemented with long-term sustainability to natural resources? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Does the solution reflect or address the concerns of all affected groups and issues? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | Subtotal | | | | | |
| QUALITY OF PRESENTATION AND REQUIRED ELEMENTS (60 point maximum) | | 0 | 2 | 4 | 6 | 8 | 10 |
| A. The presentation was well organized with a clear introduction and strong conclusions. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Participants exhibited professionalism and enhanced the presentation with good eye contact, gestures, voice inflection, and originality. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Visual aids were used to make major points and show conclusions. (Should be correct, eye appealing, readable, neat) | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Judges questions were answered logically and concisely with all team members participating. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Add up to 10 points for equal participation of all team members in presentation. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| F. Give 10 extra points if time falls between 4:00 minutes and 6:00 minutes – time was: | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | Subtotal | | | | | |
| Overall Comments | | | | | | | |
| | | | | | | | |
| Final Score (out of 200 possible) | | | | | | | |



Envirothon Oral Presentation Judging Sessions
Tuesday, June 9, 2020
12 – 3 PM

Topic: Ohio Envirothon - Team 1

Time: Jun 9, 2020 12:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/84801989935?pwd=VmlwMlk0a0xQSkZMTk1XUWVh0Y21VZz09>

Meeting ID: 848 0198 9935

Password: 875350

One tap mobile

+16465588656,,84801989935#,,1#,875350# US (New York)

+13017158592,,84801989935#,,1#,875350# US (Germantown)

Topic: Ohio Envirothon - Team 2

Time: Jun 9, 2020 12:30 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/84124249251?pwd=K0hZVG1FT0NOS3Fzb2NxR2hqTjBtdz09>

Meeting ID: 841 2424 9251

Password: 976453

One tap mobile

+13017158592,,84124249251#,,1#,976453# US (Germantown)

+13126266799,,84124249251#,,1#,976453# US (Chicago)

Topic: Ohio Envirothon - Team 3

Time: Jun 9, 2020 01:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/82260095378?pwd=MzgvNOI3cnFUSys4My9yYy9oam9Gdz09>

Meeting ID: 822 6009 5378

Password: 806399

One tap mobile

+13126266799,,82260095378#,,1#,806399# US (Chicago)

+16465588656,,82260095378#,,1#,806399# US (New York)

Topic: Ohio Envirothon - Team 4

Time: Jun 9, 2020 01:30 PM Eastern Time (US and Canada)

<https://us02web.zoom.us/j/85097821767?pwd=T3pkVHR2N2lrZkdITkpZR0l4bWM3QT09>

Meeting ID: 850 9782 1767

Password: 246990

One tap mobile

+13017158592,,85097821767#,,1#,246990# US (Germantown)

+13126266799,,85097821767#,,1#,246990# US (Chicago)

Topic: Ohio Envirothon - Team 5

Time: Jun 9, 2020 02:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/81989542315?pwd=MGRmcWxHWms3UDFiOTV4aUo0QINydz09>

Meeting ID: 819 8954 2315

Password: 337082

One tap mobile

+16465588656,,81989542315#,,1#,337082# US (New York)

+13017158592,,81989542315#,,1#,337082# US (Germantown)

Topic: Ohio Envirothon - Team 6

Time: Jun 9, 2020 02:30 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/87629714441?pwd=dUR6S3pueW00RzlkUmpoZDhLYldUQT09>

Meeting ID: 876 2971 4441

Password: 419553

One tap mobile

+13126266799,,87629714441#,,1#,419553# US (Chicago)

+16465588656,,87629714441#,,1#,419553# US (New York)

2020 INTRODUCTION

Good Morning, I am Danielle of the Brown County Soil and Water Conservation District. I am joined by Irene of the Jefferson SWCD and several other members of the Ohio Envirothon Committee. First, I would like to congratulate each of you for persevering through the unusual circumstances of the 2020 Ohio Envirothon. Your participation and enthusiasm for the program have been the driving force behind the efforts of the state committee. Thank you so much for your dedication!

Our first task is to conduct roll call to confirm that our top six teams are present. When your team is called, would the Team Captain please unmute your device and indicate that you are present?

In alphabetical order:

- Bellefontaine High School
- Boardman High School
- Brecksville-Broadview Heights High School
- Delaware Area Career Center Blue
- Lynchburg-Clay High School Eagles
- Lynchburg-Clay High School Gold

Thank You.

2020 Ohio Envirothon Presentation Instructions

1. Shortly, our committee will be reviewing the presentation scenario with you. This virtual meeting is only for Envirothon team members and members of the Ohio Envirothon Committee. No advisors are permitted to attend.
2. A copy of the presentation guidelines/instructions and the judging criteria/score sheet will be emailed to Team Captains at the conclusion of the Zoom meeting.
3. You may use your own hard copy reference and research materials, as well as online resources to assist with your preparation. As you may be using digital media, pictures and graphics may be copied and pasted for the presentation. However, any type of graphic used needs to provide credit to the source.
4. No advisors or other resource professionals may assist teams during presentation preparation time.
5. Your team has 24 hours, from 9:00 a.m. June 8th to 9:00 a.m. on June 9th, to prepare your presentation. Your team will be responsible for determining the most effective means to collaborate remotely.
6. By 9:00 a.m. the morning of June 9, you must submit your final presentation and support materials via email to envirothonohio@gmail.com. This is to ensure equal presentation preparation time for teams. Failure to submit your materials by the deadline will result in disqualification from the competition. No changes may be made to your presentation after it has been submitted. Ohio Envirothon Committee representatives will be following along in the judging room to confirm that no changes have been made. Changes will result in disqualification from the competition.

7. In the event you have problems completing your email submission, you may contact Emily Heppner at 614-326-9562. As technical and connectivity issues are a possibility, it is recommended to give your team a little bit of time to complete the submission process.
8. If the team utilizes any written materials to assist you in making your presentation (e.g. note cards, scratch paper, etc.), clear photos of each item should be submitted before the deadline, as well.
9. You should prepare for a 5-minute presentation. The presentation may use PowerPoint or video. You may also choose to present live during the presentation time. Each team member should have equal presentation time and responsibility. The judges will be asking several questions after you complete your presentation.
10. The timing of your presentation will be monitored by a member of the Ohio Committee. This individual will instruct your team when to start. Teams will receive a 10-point deduction for a presentation that is less than 4 minutes or more than 6 minutes. At 4 minutes, the timekeeper will show a green card. At 5 minutes, you will see a yellow card. At 6 minutes, the team will receive a red card and be asked to stop.
11. It is important that you remain anonymous during your presentation – No nametags or identifying clothing. Do not indicate your team name or school name on any visual aids. You may introduce yourselves by first name only.
12. Drawing for team order will take place HERE, in a few minutes. I would like to ask *Janelle Mead of the Ohio Federation of Soil and Water Conservation Districts* to please explain how the drawing will take place....
13. Thank you, Janelle. Presentations will be conducted Tuesday, June 9, 2020 from 12:00-3:00 p.m. We are on a tight schedule, so please log into Zoom five minutes prior to your scheduled presentation time. The host of the meeting will admit your team members at the scheduled time.
14. Teams will be given the option to have their advisors present during their presentation. This will be asked of the Team Captain prior to the presentation being started.
15. Lottery drawing for presentation order (select team/team captain participates to select position on schedule).
16. Read oral presentation scenario.
17. Do the team members have any questions or need further clarification?



Ohio Envirothon Oral Presentation Scenario 2020

Water Resource Management: Local Control and Local Solutions

Introduction

Groundwater is water occurring in the zone of saturation in an aquifer or soil. Groundwater contains some dissolved minerals from the aquifer it flows through as well as less desirable contaminants. It is estimated that 99% of the water on Earth is not directly usable by humans because it is held in oceans, ice, saline groundwater reservoirs, and atmospheric water. Of the 1% that is usable, 99% is groundwater. The average precipitation across Ohio (not counting our recent high of last year) is approximately 46 inches – with only 4 to 12 inches actually making it to the water table as recharge. Typically, groundwater moves very slowly with mere inches to feet per day.

Scenario

A farm in rural northeastern Ohio was recently for sale. The property was divided into two parcels. A 100-acre parcel sold to Wilmore Builders for a residential development. John and Beth Beringer purchased the remaining farm of 62 acres. The 1800s farmhouse had an addition put on in the late 1950s which included a well in the basement. An additional well (pictured below) is also located on the property. In 1990, the house was connected to city water and neither of the two wells are currently in use. The property has 30 acres in crop production (soybean and corn rotation), 15 acres of pastureland (the previous owners had horses), and a 1 – acre lake. The property also has a 12 acre stand of mature trees that John would like to have harvested for timber.

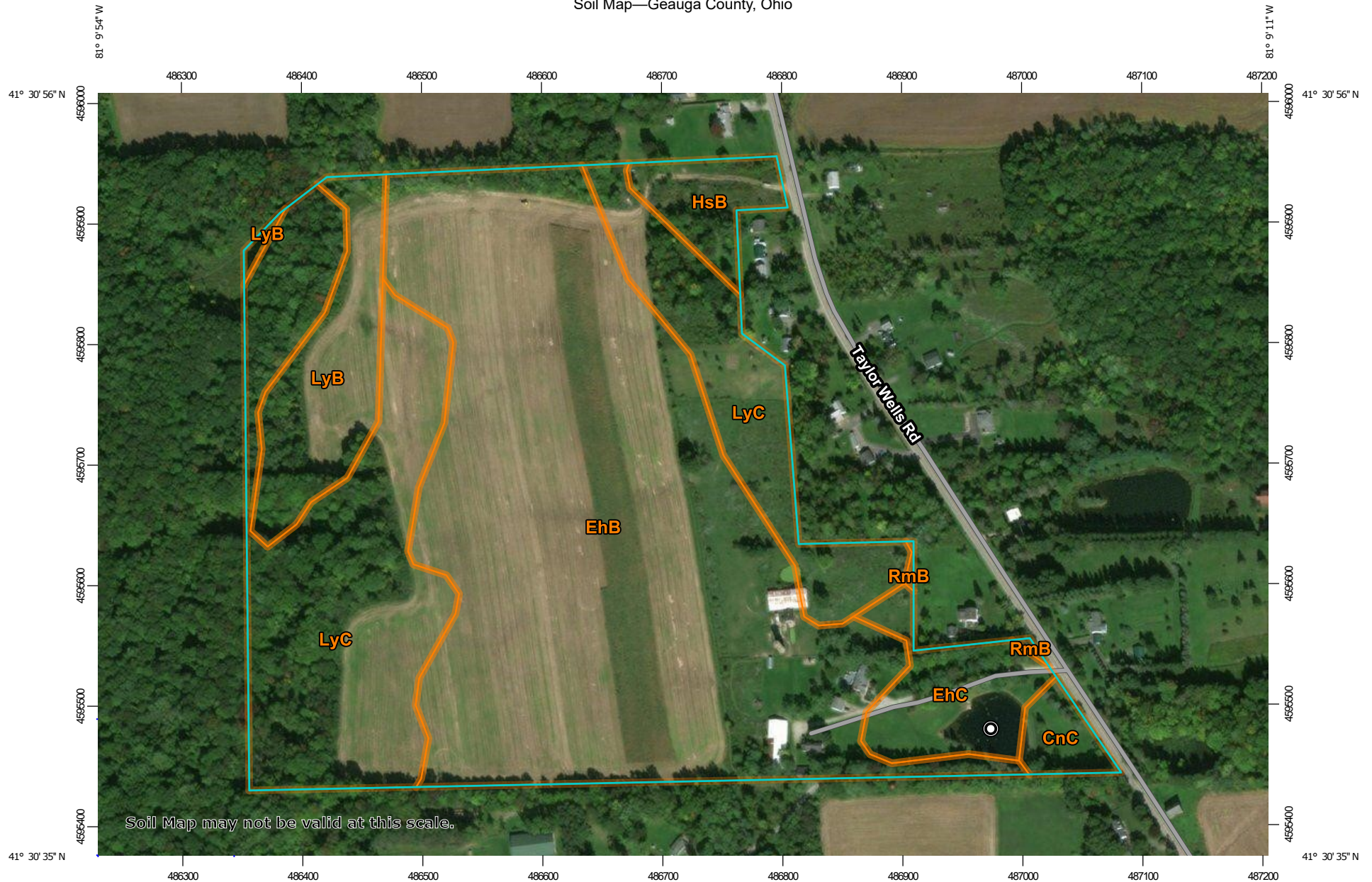
John and Beth are interested in utilizing both wells, one for irrigation of 30 acres of crop (soybean and corn rotation) and watering livestock (twelve Khatadin sheep); and the other for home use. They have hired your Environmental Consulting Company (team) to assist them in developing a plan for their property that utilizes the wells.

Your plan should address the following items:

- Identify the factors which determine the ability of an aquifer to yield water in productive amounts. Explain these factors to the landowners and also how you are able to test the yield of a specific aquifer.
- John and Beth are concerned that the water will be too soft as the previous owners have expressed this is a common problem with well water. Explain what causes water to be “soft” and options for correcting this problem if the well water is determined to be soft.
- Explain what type of well is on the property (pictured). The Beringers are happy the well was left exposed. Identify any concerns with exposure of the well, and also give the landowners options on to how to properly seal the well if they choose not to utilize it.
- Ohio shale, which is beneath the Berea sandstone, is prominent on the property. Explain why this would be a cause of concern, especially with the basement well. Identify any signs the homeowners should look for as potential problems if they choose to use the well.
- Ensure the plan that you provide to the Beringers is a comprehensive plan that identifies impacts to other household water uses and addresses solutions to conservation issues that may be incurred during the transition from city to well water.
- Finally, the plan should identify if and how the wells can be utilized by the Beringers for the planned agricultural uses of crop farming, sheep grazing, and timber harvesting.



Soil Map—Geauga County, Ohio



Map Scale: 1:4,460 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/22/2022
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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Geauga County, Ohio

Survey Area Data: Version 20, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 4, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| CnC | Chili loam, 6 to 12 percent slopes | 1.0 | 1.6% |
| EhB | Ellsworth silt loam, 2 to 6 percent slopes | 34.6 | 53.6% |
| EhC | Ellsworth silt loam, 6 to 12 percent slopes | 3.2 | 5.0% |
| HsB | Haskins loam, 2 to 6 percent slopes | 1.9 | 2.9% |
| LyB | Loudonville silt loam, 2 to 6 percent slopes | 4.6 | 7.1% |
| LyC | Loudonville silt loam, 6 to 12 percent slopes | 19.1 | 29.7% |
| RmB | Rawson silt loam, 2 to 6 percent slopes | 0.1 | 0.1% |
| Totals for Area of Interest | | 64.5 | 100.0% |



We are still in the planning process, but we have discussed some possible changes for Ohio's 2021 Virtual Event:

In 2020 we had only enough time for one multiple choice test administered statewide. Every team that registered competed against one another. In 2021, we will have two testing levels. There will be a multiple-choice test that will serve as our "area" (regional) competition. All teams statewide will be taking the same test during the same time frame, but they will only be competing against teams from their own area. The top several teams from each of the five areas will advance on to the next level of competition, i.e. the "state" Envirothon. Each area committee is responsible for developing one of the station tests at the "area" level.

The second level of competition will have a different panel of tests, more challenging than the multiple-choice tests at the "area" level. We will include fill-in, matching, short answer, etc.

In ALL tests, we hope to be able to include short videos, which we did not have enough time to figure out how to do last year.

Teams who reach the "state" level will also have to prepare an oral presentation. The oral presentation component will be similar to the way it was organized in 2020, with a few changes:

We will allow more time between judging sessions. Even with a five-minute presentation and time for judges' questions, a half hour block was not enough time to include set-up and addressing technical issues.

We will have a more in-depth judges training.

We are considering sending the presentations submitted by the teams to the judges ahead of time, so that they can prepare more in-depth questions to assess knowledge gained.

Also in 2021 we will have time to modify our rules to accommodate the virtual format, which we will share with advisors prior to the competition.

Finally, we are working on more online resources and virtual trainings for teams.