

<b>Video</b>	<b>Audio</b>
Aerial view of trees Moving through forests Close-up of EAB	<b>Intro Music Begins</b> <b>Jenny Gulick</b> <b>00:00</b> America's urban forests are under threat from exotic and invasive insects and diseases.
Jenny on camera  Cargo ships Roadways CU pests on leaves	<b>Jenny Gulick</b> <b>00:11</b> The problem is that they are being introduced now at such an accelerated rate because of globalization and worldwide shipping and mass transportation.
Dan on camera  Montage of infected trees	<b>Dan Herms</b> <b>00:25</b> In Ohio alone, we're dealing with Asian longhorn beetle threatening the maples, beech bark disease, viburnum leaf beetle killing all the native viburnums, Emerald Ash Borer threatening ash.
Row of stumps on street Kay on camera	<b>Kay Wolfley</b> <b>00:40</b> We moved here two years ago and since then pretty much all the ash trees have died.
Tree being cut down POV tree falling	<b>Kay Wolfley (off camera)</b> <b>00:48</b> It's really heartbreaking.
Cincinnati skyline  Wendell on camera	<b>Wendell Young</b> <b>00:55</b> When you have so many toxins in the air, trees are a big help, can you imagine how much worse air quality would be without trees?
Roadways and streets	Intro Music
Geoff on camera	<b>Geoff Donovan</b> <b>01:04</b> The public health research, what that is showing, is that trees can literally be a matter of life and death.

<b>Video</b>	<b>Audio</b>
Planting trees Scott on camera	<b>Scott Beuerlein</b> <b>01:11</b> Really what we need to do is fight this. It's too important not to fight it.
Tree cut down <b>[title]</b> Trees in Trouble Saving America's Urban Forests	Intro Music Ambient Sound
<b>[title]</b> Produced and Directed by Andrea Torrice	Intro Music
Overview of city  <b>[title]</b> Cincinnati, OH  Foliage CU Bark	<b>Intro Music Ends</b> Ambient sound
Dave Gamstetter measuring and marking tree, walking to car	Ambient sound
Dave on camera  <b>[ID]</b> Dave Gamstetter Natural Resource Manager Cincinnati Park Board	<b>Dave Gamstetter</b> <b>02:15</b> I have a broad job as the Natural Resources Manager for the Cincinnati Park Board. It's everything from making sure that crews address pressing needs, a tree blocking a road, to a policy decision that will be implemented sometime over the next five years.
Dave driving through trees Neighborhood  Aerial view of city	<b>Background Music Begins</b> <b>Dave Gamstetter</b> <b>02:34</b> Cincinnati's blessed with a large amount of green space. Right now our city canopy is at thirty-nine percent. Which, from the sky if you looked

Video	Audio
Street trees	down at the city, thirty-nine percent of the area would be covered with forest. We have about 85,000 public street trees along our roads. Which is equivalent to, approximately driving from here to Florida, if you were to think about how many trees you pass by, that's what we manage.
Trees in park  Dave walking in park	<b>Dave Gamstetter</b> <b>03:16</b> I'm also responsible for about 5,000 acres of park forest. So, my job is to manage all those in a way that keeps them healthy and maintains public safety.
Tree in park  <b>[title]</b> Blue Ash  Tree with yellow leaves	Background Music
Wendell Young standing next to tree, looking up at tree	<b>Wendell Young</b> <b>03:51</b> Those of us who live in Cincinnati are especially proud of trees because we have so many here. And when my friends visit Cincinnati, one of the first things they remark on is, are the number of trees that we have.
Wendell on camera  <b>[ID]</b> Wendell Young Council Member, City of Cincinnati	<b>Wendell Young</b> <b>04:04</b> A tree feels very friendly to me. I used to play in trees, I would sit under trees and read books. I would seek out trees when I just wanted to be by myself. It was a good place to just be, and a tree was not so much a place to just sit under and rest, it was like being with a good friend.
Wendell looking up at tree	<b>Wendell Young</b> <b>04:20</b>

Video	Audio
	That's what I see when I see this tree, I just see a good old friend.
<p>Tree trunk close-up</p> <p>Wendell on camera</p>	<p><b>Wendell Young</b>  <b>04:31</b>            I don't know when the Emerald Ash Borer first got to our shores, but I can remember when it began to make an impact in Cincinnati. At first, I just thought, yeah, it's just a bug, and also thought, big deal, I mean, they'll find some pesticides or whatever and people will go out and squirt the little bugs and that will be the end of it. I did not understand the seriousness of this invasion, and I did not understand that our trees are defenseless.</p>
News Report	<p><b>WLWT-TV</b>  <b>04:57</b>            This little beetle here, only about a half inch long, could soon be targeting your trees.</p>
News Report	<p><b>WTVO-TV</b>  <b>05:04</b>            Green beetle from Asia is spreading across the state line.</p>
News Report	<p><b>WLWT-TV</b>  <b>05:06</b>            The emerald ash borer is spreading a lot faster than first predicted.</p>
<p>Roadways</p> <p>Dan on camera</p> <p><b>[ID]</b>            Dan Herms, PhD            Dept of Entomology            The Ohio State University</p> <p>Emerald ash borer on bark</p>	<p><b>Dan Herms</b>  <b>05:12</b>            The first time I saw Emerald Ash Borer in Michigan, I stopped to get gas, and there was an ash tree at the gas station. I got out and I looked at that ash tree and I saw Emerald Ash Borer adults, males and females, mating on the trunk. Laying eggs on the bark. These were things that I've only seen in the laboratory. It was just, unbelievable, but it was also obvious that what was happening here was the ash trees had no natural resistance. And it was going to be an ecological disaster.</p>

<b>Video</b>	<b>Audio</b>
Brad on camera  <b>[ID]</b> Brad Bonham Arborist, Municipal Consultant  Emerald ash borer damage	<b>Brad Bonham</b> <b>05:46</b> Emerald Ash Borer is a non-native insect pest that is maybe the size of a tic-tac. And the damage that it does is it feeds right underneath the bark, and trees when they have a sufficient grub load, simply die of desiccation. Ash trees in this country are, appear to be one hundred percent at risk of death from EAB. <b>Background Music Ends</b>
Crew walking through trees	Ambient Sound <b>Joe Chamberlin</b> <b>06:18</b> We're walking up to a very large ash tree under treatment now.
Joe on camera <b>[ID]</b> Joe Chamberlin, PhD Valent Field Development Manager Legacy Tree Project  Joe circling tree  Joe on camera  Peeling bark from infected tree  View of Ash tree  Aerial of forest	Ambient Sound <b>Joe Chamberlin</b> <b>06:25</b> The problem ultimately is global trade. These insects that have evolved, say in China, where Emerald Ash Borer is from. They will have a suite of natural enemies that keep them in check and the trees that they feed on, the Fraxinus over there, the Ash over there, are different species and they have defensive compounds that help protect them from Emerald Ash Borer. When they are moved across the ocean to a new continent, then all of a sudden they don't have any natural enemies and the trees that they feed on do not have those defensive compounds. <b>Background Music Begins again</b> <b>07:03</b> What's at stake is an incredibly abundant genus of trees, of ash. They represent a very significant portion of our forests in many

Video	Audio
	areas. In some areas of New York it can be up to 50 percent of the forest can be Ash.
Swamp  Dan on camera	<b>Dan Herms</b> <b>07:20</b> Ash trees are very important parts of floodplain, riparian ecosystems, upland ecosystems, swamp ecosystems. So as the ash trees die, it's going to have a cascading effect on other plants and animals in the forest.
Dave looking at tree  Ash leaves  Baseball bat production  Trees cut down  Dave on camera	<b>Dave Gamstetter</b> <b>07:42</b> Ash trees are important because they are a native species that provides food, for mostly birds but other animals. They're 10 percent of the trees that we have. They have excellent fall color. They have a lot of value in the timber industry, used for baseball bats, flooring, all kinds of different things. We started actually removing ash trees before we found Emerald Ash Borer in the city. We knew it was coming. We knew it was on its way. Around 2008-2009 we started seeing it pretty widespread.
Tree being cut down	Ambient Sound <b>Background Music Ends</b>
Dave on camera  Cut down trees	<b>Dave Gamstetter</b> <b>08:26</b> What the citizens see is, they've seen the landscape of their streets change significantly. They've lost a lot of tree canopy and shade on their streets. That affects property values, it affects cooling costs, and it affects health of the community.
Kay on camera  [ID] Kay Wolfley Cincinnati Resident	<b>Kay Wolfley</b> <b>08:42</b> We had to cut down a whole bunch of ash trees. Pretty much they've all died since we moved here. We've cut this one down, and

Video	Audio
Kay walking through yard	there are a couple in here that we need to cut down. And then, just recently we discovered that are two other ones over here that have died that we are going to have to cut down as well.
Kay peeling bark from tree  Kay on camera  Pan up dead tree branches	<b>Kay Wolfley</b> <b>09:03</b> It's really heartbreaking. There was one specific tree in the backyard that I really loved looking at it, and it is completely dead. We have to chop it down now. <b>Background Music Begins again</b>
Road closed sign Trees cut down beside road  Dave on camera	<b>Dave Gamstetter</b> <b>09:19</b> We are closing roads and dropping trees wholesale down the road. Hundreds of trees are coming down. As a person, as somebody with a science background, I totally, you know, it's horrible, it really is horrible.
Suburban Street with rows of dead trees  <b>[slate]</b> The Cincinnati region faces losing up to 20 percent of its tree canopy to the Emerald Ash Borer (EAB).	Background Music
Suburban Street with rows of dead trees  <b>[slate]</b> There are an estimated 8 billion Ash trees in the United States.	Background Music

<b>Video</b>	<b>Audio</b>
<p>Graphic of spreading EAB</p> <p>Joe on camera</p>	<p><b>Joe Chamberlin</b>  <b>09:54</b>            The problem now I believe is found all the way from Michigan south to Kentucky, Tennessee, and all the way eastward most recently to New Hampshire. They believe that by 2019 it will have moved through almost all of the native area where ash grows.</p> <p><b>Background Music Ends</b></p>
<p>Man treating ash tree</p> <p>Dave on camera</p> <p>Man treating ash tree</p>	<p><b>Dave Gamstetter</b>  <b>10:16</b>            All of our native ash trees are going to become extinct. We're going lose all of them that are not treated using pesticides. We have selected some high priority streets in the city where we have decided to treat them. But the bulk of our policy is to remove ash trees and replace them with non-host species.</p>
<p>Ext. Cincinnati City Hall Council Chambers</p> <p><b>[slate]</b>            As the Emerald Ash Borer infestation rapidly expanded in Cincinnati, Dave Gamstetter requested additional funding to deal with the crisis.</p>	<p><b>Background Music begins again</b>  <b>Dave Gamstetter</b>  <b>10:40</b>            Mr. Chair, Council, my name is Dave Gamstetter, I with the Cincinnati Parks Board Natural Resources Management Section and I'm responsible for the forestry program. Mr. Chair, to answer the question from the Council member, the street tree assessment has been at 18 cents per front foot since 2009, and we are requesting a 1 cent increase. So the average property owner would pay about 50 cents in addition to the 9 dollars they've been paying now.</p>
<p>Cincinnati City Council Chambers - Voting</p> <p><b>[slate]</b>            The City Council approved the 5%</p>	<p>Background Music            Ambient sound – council members voting off camera.</p> <p><b>11:06</b>            Council member Murray? Yes.            Council member Seelbach? Yes.</p>

<b>Video</b>	<b>Audio</b>
<p>increase to the street tree program.</p> <p><b>[slate]</b>            But some Council Members, concerned about budget deficits, remained opposed.</p>	<p>Council member Simpson? Yes.            Council member Sittenfeld? Yes.            And passage.</p>
<p>Cincinnati Council meeting</p>	<p><b>Council Member Flynn</b>  <b>11:12</b>            Mr. Chair?            Yes, Mr. Flynn?            I'm going to vote no on this... I do love the trees, I'm just not in favor of \$100,000.</p>
<p>Trees being cut down</p>	<p><b>Dave Gamstetter</b>  <b>11:26</b>            Right now the city budget is not in a good financial position to be able to fund a lot of removal and a lot of planting work. We're spending all of our energy and funding on removing hazardous trees, and we are not replacing them.</p>
<p>Jenny on camera</p> <p><b>[ID]</b>            Jenny Gulick            Community Forest Consultant</p>	<p><b>Jenny Gulick</b>  <b>11:44</b>            Cities have to take care of these trees, because a dead tree could fall on somebody, kill somebody and do a lot of property damage. So cities are having to, all of the sudden, unexpectedly, spend a lot of money on tree care. An averaged sized tree 20 inches in diameter, 40 feet tall, probably costs a thousand dollars to remove. So you can see that it could have great economic impact to both local governments and the private property owner.</p>
<p>Tree in seasons</p>	<p><b>Background Music begins again</b></p>

<b>Video</b>	<b>Audio</b>
Dave Gamstetter walking back into City Council Chambers	Background Music
City Council  Dave watching meeting	<b>Wendell Young</b> <b>12:38</b> It has to do with our urban forestry, and there is no one who lives in Cincinnati, probably who does not appreciate our canopy, our trees. Some of the trees are under attack by pest and so forth. This is a very important item.
<b>[slate]</b> With thousands of dead ash trees throughout the city, the City Council then had to approve an additional \$800,000 to remove the hazardous trees.  <b>[slate]</b> It is estimated that the EAB crisis cost the city an additional \$3.7 million.	Background Music
Dave Gamstetter talking to his tree crew.	<b>Dave Gamstetter</b> <b>13:06</b> And you guys were at French today?
Tree crew	<b>Tree crew</b> <b>13:08</b> Today we were at French.
	Did you get those dead ash trees over there by the playground?
Tree crew	<b>Tree crew</b> <b>13:12</b> Yes we got those...
Dave on camera	<b>Dave Gamstetter</b> <b>13:14</b>

<b>Video</b>	<b>Audio</b>
Trees being cut down in park	We are putting off planting trees. We removed over a hundred trees in Burnett Woods last year and we've not planted a single one. You know short term, the objective is to make the streets safe and the parks safe. Long term, we should be replacing those trees to continue the forest on for future generations. And right now we aren't doing that because we don't have money to do so.
Wendell on camera  Tree stump  Street Trees  Pan of greenspace in park overlooking city, man walking	<b>Wendell Young</b> <b>13:45</b> I am constantly, very much aware of what our city looks like with trees, and I dread what it would look like without them. When we are losing trees, we need to work cooperatively to replenish them. My hope is that Cincinnatians, not only understand what we have, but appreciate it to the point that we're willing to defend that.
Montage of tree canopy shots and street trees  Power plant  Water treatment facility	<b>Jenny Gulick (off camera)</b> <b>14:20</b> Trees do so much for us, they clean our water, clean our air, provide us wood products, provide habitat, make it so that we don't have to use as much energy. If trees were not doing that, we would have to put more scrubbers on our power plants, we would have to build more storm water detention basins, we would have to have more water treatment facilities.
Street Trees  Dan on camera  Trees next to apartment  View of City skyline	<b>Dan Herms</b> <b>14:51</b> A large tree can easily provide several hundred dollars' worth of environmental services, each year, to a community. They sequester carbon dioxide.

Video	Audio
	Trees have a big effect on reducing the urban heat island effect that's caused by concrete and impervious paved surfaces.
<p>Man walking down street            Geoff on camera</p> <p><b>[ID]</b>            Geoffrey H. Donovan,            PhD            Research Forester            USDA Forest Service</p> <p>Graphic of research            paper</p> <p>EAB infestation            animation</p> <p>Geoffrey on camera</p> <p><b>[title]</b>            15,000 Cardiovascular            deaths</p> <p><b>[title]</b>            6,000 Lower respiratory            deaths</p> <p>Geoffrey on camera</p> <p>People in park</p> <p>People walking on streets</p>	<p><b>Geoffrey Donovan</b>  <b>15:18</b></p> <p>A lot of people have commented on the link between the natural environment and well-being in the broadest sense, but not very many people have come at it from a statistical point of view, and that's where I come in. What I try and do is quantify a link between trees and public health.</p> <p>So this animation shows the spread of EAB since it first appeared in Detroit, Michigan. And you see it spreads very quickly, until 2013, where it goes to Colorado.</p> <p>So you just kill all these trees in a short amount of time, what happens to public health? And what I found is, that it suffered. In fact, what we found is across 18 states, and 7 years in the study, an additional 15,000 deaths from cardiovascular disease, an additional 6,000 from lower respiratory, so quite a lot of people.</p> <p>And why would they be in particular, well because we know that trees can improve air quality and we know that air quality is associated with both those types of diseases. We also know that if you put people in a natural environment, it can lower stress, and we certainly, it's not news to anybody that stress is an important driver of disease. And indeed I start to think of trees as an essential part of our public health infrastructure.</p> <p>So if you are on the city council, and you are trying to balance education, law enforcement, streets, sewers, trees, it's not that you abandon all those others and spend it on</p>

Video	Audio
Geoffrey on camera  People in park	trees, but rather you have a better understanding of what benefits those trees can provide and you can make a better informed decision.
Archival photo – dirt road David on camera  <b>[ID]</b> David Stradling Urban and Environmental History Professor University of Cincinnati Archival images	<b>David Stradling</b> <b>16:52</b> That's the lesson of urban parks around the country, that by and large, investments in the nineteenth century have paid incredible dividends. You can't find anything that costs so little that continues to have so much value to communities today.
Archival photo - logging Scott on camera  <b>[ID]</b> Scott Beuerlein Horticulturalist Cincinnati Zoo & Botanical Garden  Archival images of Cincinnati  Scott on camera again	<b>Scott Beuerlein</b> <b>17:13</b> We all know the story of how the country got logged. The squirrel could jump tree to tree to tree from the east coast to the Mississippi. And then at some point, all those trees were logged and gone. And that's really true. It took that much before people became aware that we're running out of a major resource. This is what we built all the cities out of. This is how the country was fueled, for heat and for cooking. Wood was really important. The first few people that kind of became aware and started talking about this crisis, coincidentally enough, many of them were from Cincinnati.
Archival photo – John Warder  Archival images  David on camera again	<b>David Stradling</b> <b>17:53</b> John Warder comes to the city of Cincinnati in the 1830's to practice medicine, which he does for about 20 years. He all along has this love of horticulture. Warder is connected to all kinds of folks who are interested in trees around the country, and by the mid 1870's, he like some other Americans, are growing

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	concerned about the state of the nation's forests.
Archival image – Delegate's ticket	<p><b>Scott Beuerlein (off camera)</b>  <b>18:21</b>            And in 1882, the very first forestry Congress held in North America was held here in Cincinnati. And that brought experts in from all around the country here to Cincinnati to confront the tree crisis they were facing.</p>
Archival images  David on camera  Archival images	<p><b>David Stradling</b>  <b>18:35</b>            And this is where the American Forestry Association is established. That organization is designed to discuss the importance of trees to the nation and to think about steps that need to be made to preserve trees, and also to promote the planting of trees.</p>
Archival images  Scott on camera	<p><b>Scott Beuerlein</b>  <b>18:54</b>            Two days after the congress, the superintendent of Cincinnati Schools let all the kids out of school. They went up to Mt. Adams to an abandoned vineyard, and planted trees. And that has become Eden Park, which we all know as a beautiful forested park.  <b>Background Music Ends</b></p>
Tree planting at park <b>[title]</b> Eden Park, Cincinnati	Ambient Sound
Gathering of people planting trees in park  Thane on camera  <b>[ID]</b> Thane Maynard Director	<p><b>Thane Maynard</b>  <b>19:14</b>            I am certain that there is not a person here, who on the way here, coming to an event around trees, didn't notice some dead trees along the skyline, sitting above the canopy. This is not the first major reforestation effort in the Tri-State. Reforestation happened over</p>

<b>Video</b>	<b>Audio</b>
Cincinnati Zoo & Botanical Garden	100 years ago in a big way. And it's going to happen again.
Brewster on camera  <b>[ID]</b> Brewster Rhoads Former Executive Director Green Umbrella  People planting trees	<b>Brewster Rhoads</b> <b>19:40</b> The city of Cincinnati, the counties in this region, other municipalities, do not have enough dollars to take care of the job themselves. So, it's really important that volunteers get engaged, that civic groups, community organizations, businesses, schools. We'd love to be able to spark a national revolution of planting trees everywhere in America and around the world for that matter.
Scott on camera  People planting trees	<b>Background Music Begins Again</b> <b>Scott Beuerlein</b> <b>20:03</b> Planting a tree is the one thing that you can do right now, that, right away starts improving the environment. We need to plant a diverse range of different trees. So, get out there and grow something different than your neighbor has and we're going to be a lot better off for it.
Kate on camera  <b>[ID]</b> Kate McConnell Glenwood Gardens Volunteer  People planting trees	<b>Kate McConnell</b> <b>20:21</b> So the reason that we want to plant trees, is to increase our biodiversity in our forest stands. If we only had a stand of a singular tree species, we would have no more trees if something like an ash borer came in and wiped them out.
Dan on camera  Montage of Tree/leaf damage and CU's of invasive pests	<b>Dan Herms</b> <b>20:34</b> This is certainly not going to be the last invasive species that we have. It's not going to be our last ecological disaster. We're discovering new invasive species all the time. In Ohio alone, we're dealing with beech-bark disease,

Video	Audio
	<p>viburnum leaf beetle, killing the all the native viburnums, Asian longhorn beetle, threatening the maples.</p> <p><b>Background Music Ends</b></p>
<p>Dave on camera</p> <p><b>[title]</b> Bethel, OH</p>	<p><b>Dave Gamstetter</b> <b>21:01</b></p> <p>If we get Asian longhorned beetle here, we would actually lose 25 percent of our street trees and 33 percent of our park trees. Those are huge numbers.</p> <p><b>Background Music Begins Again</b></p> <p>It would be devastating for human health, we'd have more storm water flowing into our streams, there would be just enormous consequences.</p>
<p><b>[title]</b> Cleveland, OH</p> <p>Jenny on camera</p>	<p><b>Jenny Gulick</b> <b>21:23</b></p> <p>So far, the cost of managing the damage these exotic pests nationwide, has been over 2 billion dollars to local communities, that's not federal money.</p>
<p>Street trees before/after</p> <p><b>[title]</b> Worcester, MA</p>	<p><b>Background Music</b></p>
<p>Jenny on camera</p> <p>Wooden pallets</p>	<p><b>Jenny Gulick</b> <b>21:43</b></p> <p>We are at a crisis where we're going to have to come at this problem with a variety of solutions.</p> <p>When trees are cut down to make wood products, pallets for instance, to ship goods to the United States, these pallets have the insect in them. Can you imagine how many pallets come into the United States every day, twenty-four hours a day?</p>
<p>Produce/plants/flowers</p> <p>Dan on camera</p>	<p><b>Dan Herms</b> <b>22:14</b></p> <p>They get here through infested produce and plants.</p>

Video	Audio
	The government agencies charged with protecting our borders have experienced major budget cuts and they are spread way too thin.
Shipping containers  Training  Municipal tree ordinance graphic  City council	<b>Jenny Gullick (off camera)</b> <b>22:27</b> We do have to increase our inspection, we may do one percent; we need ten percent. And what we need to do is train arborists, homeowners, everybody to look for signs and indications of insects and disease symptoms on trees. There's a number of things communities can do and planners can do. They could look at street tree ordinances, and see what in there could be improved, to give trees a fighting chance.
Brad on camera  Dave Gamstetter walking in park  Tree leaves	<b>Brad Bonham</b> <b>23:00</b> What I would recommend for any municipality now in North America is no matter whether EAB is in your state or not, you should develop a plan. And then for municipalities, once EAB is within twenty miles, pull the trigger and start protecting the trees that you have decided need protection.
Dave in park looking at trees	<b>Dave Gamstetter</b> <b>23:20</b> These are among about a hundred trees in the park system that we are treating for Emerald Ash Borer. It's hanging in there, it's been under a lot of pressure, but it's coming back and looking good.
Dan on camera  Tree breeding  Images of seeds	<b>Dan Herms</b> <b>23:33</b> The insecticides can be very effective, at protecting individual trees. Unfortunately, it's too expensive to use on a really wide scale. So it's not an option for protecting ash trees in the forest. In that case, we're looking at a

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	more long-term solution, trying to breed resistant trees that we can ultimately reintroduce to the forest.
Scott on camera  Workers harvesting seeds  Seeds	<b>Scott Beuerlein</b> <b>23:58</b> The government is saving seeds from local populations and putting them into storage. We may be able to come back and plant these seeds and start ash again, but we're talking a process of 50 or 100 years. Who knows, a long time.
New tree planted  Brad on camera  Seedling	<b>Brad Bonham</b> <b>24:16</b> The next hope is hybrid trees, in the same way that hybrid elms were developed, in the same way that hybrid chestnuts have been developed. So perhaps forty years from now, we will be planting hybrid ash trees that are resistant to EAB.
Tree planting  <b>[title]</b> Pleasant Ridge Montessori, Cincinnati	Ambient Sound
Wendell addressing crowd and children          Kids planting tree	<b>Wendell Young</b> <b>24:38</b> I don't know how much you know about Arbor Day, but when I was your age, it was a very special day, because we, like you, would go out and plant trees, not only at school but also in our neighborhoods. And some of those trees I planted as a child, are still thriving today, and I am told the tree in front of you that you are going to plant today is a Burr Oak, and that tree is going to get really big, and could last as long as 100 years, which means you will get the opportunity to bring your children and perhaps your grandchildren, to see the tree that you planted today.

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Newly planted tree  Wendell on camera	<b>Wendell Young</b> <b>25:20</b> Trees need to be taken care of, they will take care of us, but we need to take care of them too, it's a symbiotic relationship. Things that we didn't have to worry about, we now need to pay attention to. Well the warning has been sounded. We simply need to take note, and be prepared.
Pan of tree <b>[title]</b> One of the last surviving mature Ash trees	Background Music <b>25:38</b>
<b>END OF PROGRAM</b>	
<b>[Credits]</b> Produced and Directed by Andrea Torrice	Background Music <b>25:51</b>
<b>[Credits]</b> Editor Matt Dibble	Background Music <b>25:53</b>
<b>[Credits]</b> Original Music Composed and Produced By Brian Lovely	Background Music <b>25:55</b>
<b>[Credits]</b> Cinematography Melissa Godoy Dave Morrison	Background Music <b>25:56</b>
<b>[Credits]</b> Additional Camera Beth Fowler Jaeson Jackson Russ Johnson Erick Stoll	Background Music <b>25:58</b>
<b>[Credits]</b> Audio Aaron Almashy Liz Cambron Melissa Godoy Jaeson Jackson	Background Music <b>25:59</b>

<b>Video</b>	<b>Audio</b>
<b>[Credits]</b> Assistant Editor Bryan Lierer  Motion Graphics Matt Dibble Tom Beuerlein	Background Music <b>26:01</b>
<b>[Credits]</b> Violinist Paul Patterson	Background Music <b>26:02</b>
<b>[Credits]</b> Researchers Merry Hicks Shannon Hokanson  Archival Images Researcher Emily Jansen-Payne	Background Music <b>26:03</b>
<b>[Credits]</b> Sound Edit & Mix Philip Perkins  Colorist Heather Weaver	Background Music <b>26:05</b>
<b>[Credits]</b> Production Associates Joseph Adkins Nicki Davis Mary Schartman Kay Wolfley	Background Music <b>26:06</b>
<b>[Credits]</b> Web Designer Nicki Davis	Background Music <b>26:08</b>
<b>[Credits]</b> Archival & Stock Image Sources American Forests Magazine	Background Music <b>26:09</b>

Video	Audio
Archives and Rare Books Library, University of Cincinnati Archives.org Bentley Historical Library, University of Michigan Bugwood.org Cincinnati CitiCable Cincinnati Park Board Cincinnati Museum Center- Cincinnati History Library & Archives Cristiaciobanu, pond5.com Dan Herms, PhD., The Ohio State University Dave Gamstetter Dorseymedia, pond5.com Dreamshot, pond5.com Dunn Library, Simpson College E. Richard Hoebeke, Cornell University, bugwood.org	
English Wikipedia User, Daniel Case Eric R. Day, Virginia Polytechnic Institute and State University, Bugwood.org Footage Firm, Inc. Graham Calow, Naturespot.org.uk Gutenberg.org ImageGeneration, Pond5.com Iprano, pond5.com Jennifer Koch, USDA Forest Service Jian J. Duan, USDA Joan Jolliff, USDA Forest Service Joseph O'Brien, USDA Forest Service, Bugwood.org Kathleen Knight, PhD., USDA Forest Service	<b>Background Music</b> <b>26:11</b>

<b>Video</b>	<b>Audio</b>
Kenneth R. Law, USDA APHIS PPQ Kyle T. Ramirez, Photojournalist Laura Weber Library of Congress, Prints & Photographs Division	
Linda Haugen, USDA Forest Service, bugwood.org Mclein, pond5.com Milan Zubrik, Forest Research Institute – Slovakia, Bugwood.org Oregon Explorer/OSU Libraries/Institute for Natural Resources Paul Wray, Iowa State University, bugwood.org Paul Weston, Cornell University, bugwood.org Pennsylvania State Archives Pond5.com Shorpy.com Sjoerd Van Der Wal, Dreamstime.com Stock media provided by Ujung/Pond5.com The Collection of The Public Library of Cincinnati and Hamilton County The Plain Dealer/Landov Tiberio, pond5.com Tom Arbour, Ohio Department of Natural Resources	<b>Background Music</b> <b>26:14</b>
Univ. of Chicago Photographic Archive, Special Collections Research Center, Univ. of Chicago Library USDA, Agricultural Research Service USDA, Forest Service U.S. Fish & Wildlife Service, National Digital Library	<b>Background Music</b> <b>26:16</b>

<b>Video</b>	<b>Audio</b>
Visimax, Dreamstime.com Vladimir Zhuralev, Dreamstime.com WLWT – TV, Cincinnati, OH WTVO – TV Wideweb, pond5.com Yuen Man Cheung, Dreamstime.com	
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Antivius Martin Midwest Grip and Lighting Travis Miller Ryan Mulligan Natorp's	<p>Background Music  <b>26:20</b></p>

<b>Video</b>	<b>Audio</b>
OKI Pleasant Ridge Montessori School Brewster Rhoads Spring Grove Cemetery and Arboretum Beth Sullebarger The Camera Department The Clifton Cultural Arts Center Steve Sobel Taking Root Len Thomas Liana Torrice Univ.of Cincinnati School of Art Wendi Van Buren Charles Woodman Craig Young  Copyright, Torrice Media 2015 This program was produced by Torrice Media which is solely responsible for its content.	
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<b>[title]</b> The Craig Young Family Foundation	<b>Narrator</b> <b>26:30</b> The Craig Young Family Foundation
<b>[title]</b> Tree Fund Logo	<b>Narrator</b> <b>26:33</b> And The Tree Fund

*Trees in Trouble* – Final Script  
Andrea Torrice, Producer/Director  
Version Dated: 12-2-15

<b>Video</b>	<b>Audio</b>
<b>[title]</b> To order a copy of this program visit: <a href="http://www.treesintrouble.com">www.treesintrouble.com</a>	<b>Narrator</b> <b>26:35</b> To order a copy of this program visit: <a href="http://www.treesintrouble.com">www.treesintrouble.com</a>
<b>FADE TO BLACK</b>	<b>26:42</b>