

## THE WITNESS TREE/WATERSHED PROJECT

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### PROPOSAL

In the interest of promoting civilian engagement with the watershed, we propose a public art project to take place in the city of West Branch as part of the city's new comprehensive plan. Our concept is an interactive, site-specific sculptural installation that allows visitors to both read about the history of the area and add to the narrative with their own written testimonies. The basic concept is simple: a durable lectern with a storage compartment placed at the water's edge in Wapsi Creek Park. That compartment would contain a binder with original writing from MFA candidates at the University of Iowa that would provide an anecdotal history of the town centered around interactions with the Wapsinonoc Creek. This history would combine archival research about the settlement of West Branch with the natural history of the Lower Cedar Watershed. A number of pages would be left blank to encourage residents and visitors to supplement this history with entries of their own. The more complete concept, however, must begin with an explanation of witness trees.

While reading *The Emerald Horizon*, Cornelia F. Mutel's engrossing primer on the natural history of Iowa, we were taken with a bit of technical language she invokes in reference to early land surveys. Between 1832 and 1859, the General Land Office surveyed all of Iowa's land to parcel it for settlement. Mutel writes, "Surveyors traveled the boundaries of each mile-square section, taking scant field notes and recording the boundaries of prairies, swamps, and trees groves. They also identified and recorded distances to *witness (or bearing) trees* at the corners of

each section.” (Mutel, 2008, p. 7) Later in the book, Mutel uses those records of nineteenth-century “witness trees” to map changes in Iowa’s arboreal biodiversity over time. We were not aware of this practice, the designation of witness trees, until reading Mutel’s references to it. Researching the term, we found this excellent definition from the Wisconsin State Cartographer’s Office.

Bearing trees, also known as *witness trees*, were used as natural reference points during early land surveys in the United States. When the Public Land Survey System (PLSS) was introduced in the 1800s to divide and allocate land across the expanding western territories, surveyors marked key boundaries using wooden posts. To ensure these points could still be found if the posts were lost or damaged, nearby trees were selected and recorded as fixed references. (Huang, 2025)

This was a concept unfamiliar to us: a tree, something living and thereby ephemeral, designating the official boundaries of federal land. Looking over those records collected between 1832 and 1859, Mutel demonstrates how surveyors drew upon 6.6 million acres of tree cover, 18 percent of the state’s total acreage, for reference points in mapping Iowa. This would be uniquely useful in the Midwest, where the original tallgrass prairies were susceptible to fire that only left thick-barked, open-cover trees like oaks to grow old. A tree in the savanna was a significant presence.

Although Mutel only mentions it to make a larger point about the change in tree species over time, the idea of a tree having such dependable bearing in a landscape captivated us. How different was our relationship to the natural world 170 years ago, when we could depend on the land as a stable witness to our history? At the time eastern Iowa, Cedar County included,

contained the vast majority of Iowa's natural oak woodland. It did not take long for this mentality to change demonstrably: by 1900, 97 percent of Iowa's land had been converted to farmland (Mutel, 2008, p. 21). Trees were felled *en masse* for the fertile land that gave rise to them, and their wood used to enclose the pastures planted in place. Iowa's current natural woodland spans about 2.9 million acres, exclusive of trees planted on city streets. Over 90 percent of that land is designated for logging (U.S. Department of Agriculture, Forest Service, 2025). 0.02 percent of the original white oak savannas remain intact today (Mutel, 2008, p. 158). These days, trees are not liable to live long enough to bear witness.

In her bestseller *Braiding Sweetgrass*, the biologist Robin Wall Kimmerer speculates on how we might live more harmoniously with the natural world. One of the most profound passages in the book comes from her encounter with a kind of witness tree, an ancient conifer compared to which her life "is just a birdsong long" (Kimmerer, 2013, p. 206). Sitting under a Sitka spruce several centuries old, Kimmerer considers how both native elders and social theorists bemoan our contemporary culture's sense of rootlessness. "The problem with these new people," she writes, referring to European settlers of the Americas, "is that they don't have both feet on the shore...They don't seem to know whether they're staying or not" (Kimmerer, 2013, p. 207). She wonders if all people who call this land home, indigenous or not, could learn to become "native" to a place. Then would we finally be able to face the realities of environmental degradation, and take communal action to preserve our forests, prairies, and rivers for the generations after us?

The question here in Iowa is an urgent one. Those in the Lower Cedar WMA will not have to be told that the people of this state, including the city of West Branch, are threatened by the acute consequences of factory farming. Peer-reviewed research has well established the connections between Iowa's second-in-the-country cancer rates and the nitrate pollution of its waterways

(Iowa Environmental Council, 2024). Additionally, contamination from algal microcystin and *E-coli* bacteria, consequences of manure runoff, has made many of Iowa's rivers and lakes unsafe for recreation. The Lower Cedar WMA's 2022 Watershed Plan described ten of the watershed's thirteen sections as impaired by the latter class of pollutants (Lower Cedar Watershed Management Authority, 2022). Just this year *E-coli* advisories at state beaches hit a ten-year high (Howe, 2025).

Part of the solution, per Kimmerer, is a change in thinking. Considering the state legislature voted in 2023 to defund the IWQIS monitoring infrastructure that has made this crisis visible in the first place, it is clear that the court of public opinion has not found water pollution worthy of attention. Attempts at remediation have hardly been robust. The state Batch-and-Build program designed to mitigate runoff has continued to lower its standard to the point that it only requires new practices to capture less than 5 percent of a field's total drainage capacity. This program has built about .01 percent of the total buffers that would be necessary to filter out just 1 percent of the state's total nitrate load. The money spent on these ineffective, voluntary practices, to both build them and pay off farmers to permit their installation, has been directly appropriated from the defunded IWQIS (Haavik, 2024).

The sluggish pace of conservation is not the result of malevolence, but apathy. No one person can be blamed, no one corporation condemned, for conceding stewardship of the land we live on. It is the four-hundred-year crystallization of that settler mindset that states we are only here as long as the land is useful, and that we cannot give an inch of space to any practice that endangers the immediate health of the market. There is no past or future in this mentality, just the desperate need to make good on the sunk cost of industrial agriculture. It's the logic that followed from a surveyor taking a plot of land defined by its terrain and squaring it off into a parcel fit to sell.

The witness tree obviated its own purpose—the moment the land was mapped, its natural features could not be relied on to define its bounds. No one who lives in a place delimited by artificial boundaries can be expected to think of themselves in concert with its natural features. We need a new, holistic way of considering our relationship to land we inhabit, which has not ceased to nourish us even since we ceased to nourish it. We need to renew our sense of what Peter Berg and Raymond Dasmann call a sense of “living-in-place.” They describe this philosophy as follows: “Living-in-place means following the necessities and pleasures of life as they are uniquely presented by a particular site, and evolving ways to ensure long-term occupancy of that site. A society which practices living-in-place keeps a balance with its region of support through links between human lives, other living things, and the processes of the planet—seasons, weather, water cycles—as revealed by the place itself” (Berg & Dasmann 1977, quoted in Aberley, 1999, p. 24). By practicing living-in-place, people learn to see their wellbeing as inextricably linked to that of their environment. To think our way into improving water quality, then, we must start by thinking of ourselves as citizens of our watersheds. The city of West Branch could be an incubator for a kind of public humanities project that instills this new kind of thinking. It begins by installing a new kind of witness tree.

The Witness Tree project consists of a series of sculptural installations, tree-like repositories containing ledgers that document the environmental and anthropological histories of sites within the Lower Cedar Watershed. Each site will house a faux-bois sculpture in the likeness of a cut tree stump, with a hinged door containing a bound paper ledger. This ledger will begin with a history of the site written by the Witness Tree team, which will intentionally conflate the area’s natural history with that of its people. The remaining pages, which will be added to as needed, will be left blank to accommodate additions by visitors to the site, so that they can see their own

history existing in tandem with that of the watershed itself. Visitors, then, will be able to both read and write their place in the watershed.

Some more description of the “tree” itself: the top will be canted towards the reader roughly 30 degrees from horizontal, in order to create a stable writing surface. There will be a shallow lip along the low side of the top, giving the reader a shelf to write on (like a lectern). The side of the stump facing the reader will be hollowed out with a hinged door, creating a storage space for the ledger, in the style of a Little Free Library. Writing instruments will be housed on the inside of the stump. There will be a plaque on top declaring the establishment of the witness tree, imitating the language of a nineteenth-century land title.

We hope to establish the first Witness Tree in the section of the Wapsi Creek Park between E College and Green Street. The city of West Branch would be a perfect place to initiate this project, one which we hope to replicate in other green spaces in developed areas across the watershed. West Branch is named after its location on the Wapsinonoc Creek, after all, so giving the people of West Branch a place of communion with their local waterway should be essential to the city’s new comprehensive plan. Despite 79 percent of the land being designated for agricultural use, the Lower Cedar Watershed is considered to be the most biodiverse region in all the state, containing as it does the remnants of the aforementioned oak savannas (Lower Cedar Watershed Management Authority, 2022, pp. 23-25). Protecting this habitat should be imperative, but not as something set apart from the people who share its water. Blurring that boundary between the developed and wild may motivate people to defend their rivers and streams as natural extensions of their own homes. The Witness Tree will provide a place of natural accountability for the people of West Branch, situating them within a dense history both natural and fabricated, both human and hydrological.

As a proof of concept, we have prepared a plan for an opening ceremony to introduce the community to the witness tree and a sample of some writing that might appear in the West Branch/Wapsinonoc site's ledger. We hope you will consider this project as a potential element of the city's comprehensive plan.

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## **OPENING CEREMONY**

Witness Tree/Watershed is a participatory ecological art project. We want to create a compendium of observations, experiences, and memories that bear witness to and were witnessed by this particular moment in the watershed where the West Branch of the Wapsinonic Creek travels through the city of West Branch.

In order to model its use and encourage local engagement, an opening ceremony should be planned. Some suggestions follow:

- Promote the event in several different forums: flyers at the public library, social media posts linked to partnering organizations. The event will be free and open to the public. The invitation should note that guests may drop in anytime during the ceremony.
- Provide refreshments.
- Provide binoculars and hand lenses to borrow. Provide field guides for trees, birds, insects.
- Provide small notebooks and writing materials. If possible, provide some options for seating (foam mats, portable camp chairs).
- Set up near the Witness Tree and have facilitators available to answer questions about its production. As they arrive, guests will be invited to spend time exploring the area

surrounding the witness tree. They can be given a list of generative writing prompts, such as:

*What do you hear?*

*How many trees can you count from where you are standing?*

*Do you remember what this park looked like 3 months ago? 3 years ago? 30 years ago?*

*Who were you with the first time you visited this creek?*

*What do you hear?*

*Are there birds in the sky? In the trees? On the ground?*

*What shapes are the clouds today?*

*What is the biggest news of the day?*

*What is the smallest news of the day?*

Participants will be able to transcribe some aspect of their journal into the ledger housed in the Witness Tree and encouraged to visit whenever they have a spare moment. A public event should be planned for each season. The notebooks can be kept by participants as their private witness trees.

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#### **TEXT SAMPLE FOR WAPSI CREEK PARK LOCATION**

*Plaque:*

WHEREAS an old growth tree of particular stature would have been used to mark the boundaries of this land, suitable for mapping the particular limits of a region to be parceled and sold and thereby recording its circulation through private hands, let this marker established at seventy-nine minutes north and four minutes west of the fifth

principal meridian by the 1838 Land Management Survey speak for itself, and thereby to the experiences of those people who have called the banks of the Wapsinonoc Creek and its watershed home.

*Ledger:*

*Just two centuries ago, this landscape is dominated by tallgrass prairie. Plants with deep roots stabilize rich, moist soils. A sea of sedges and forbs and grasses roll along the glaciated topography. Fire and grazing create a quilt: each patch a unique blend of species:*

*big bluestem, porcupine grass, panic grass, prairie dropseed, little bluestem, side-oats grama, cordgrass, and blue-joint.*

*Patch burn, patch graze.*

Sept. 28, 1836 – Township lines established by Deputy Surveyor William A. Burt, from the Cincinnati, Ohio field office of the U.S. Surveyor General.

*Young streams, not existing 150 years ago, have cut paths through areas that were once wetlands and seeps. These creeks and cricks are sensitive, prone to flash flooding as much as desiccation.*

May 6<sup>th</sup>, 1837 – Subdivisions established by Deputy Surveyor W.R. Shoemaker over the course of one summer. The area now comprising downtown West Branch designated as sections 5, 6, 7, and 8. At their conjunction lies this bend in the creek.

*The West Branch of the Wapsinonic has been listed as “impaired” since 2018. Agricultural, rural residential, and urban land uses within the watershed result in increased*

*frequency and magnitude of floods, bank erosion, sedimentation, nutrient inputs, and other chemical pollution.*

August 10<sup>th</sup>, 1874 – Future U.S. president Herbert Hoover born in a two-room, board-and-batten cottage on the banks of the Wapsinonoc Creek.

*True flies, oligochaete worms, and baetidae mayflies tolerate the poor water quality; the caddisfly does not*

February 16, 1911 – West Branch resident Perry Hormel sues Gustavus S. Kintz(e)ing, his wife, unnamed in the suit; Zelotus N. King, his wife Rozillo King; Joseph King and Elmira King, his wife; Gelotes N. King and Rozillo King (again); Baltzer Hormel and Elmina Hormel, as well as their aliases spelled “Hormell” with two Ls; L.K. Hoge and his wife, unnamed in the suit; Lemuel G. Hoge and his likewise anonymous wife; Mary E. Sha(f)fer and her husband (!), unnamed in the suit; C.W. Hoge and his wife; Mrs. L.M. Chase and her husband, Mr. T.K. Chase; Mrs. L.A. Westfall (a widow, we’re afraid); the other Huges, Jesse and Susan; the remaining members of the Chase family including Charles, Lena, Roy, Elsie, Gertrude, and Harry (the latter two yet unmarried); William Henderson and Nellie Henderson, his wife; E.T.S. Henderson and Mrs. Henderson too, for good measure; Egbert S. Henderson, a widower; Lilburn W. Henderson and his beloved Amanda; John and Maria, Hendersons all the same; the widow of Mr. Matt Wright; Lizzie Elliot and William Elliot, her husband; the following single children of the Henderson family: Nell, Frank, Emma, Will, Lizzie, Elma, Robert, Fred, Charles, Jessie; Elliot Henderson and his wife; Sarah Henderson Mantell and her husband; Louis Hanks and Jeptha Hanks, her husband; and Philo and

Maria Mead for possession of, among other holdings, the land lying in the northeast corner of survey section 35, on the southwest branch of the North Wapsinonoc Creek.

*Johnny darter, creek chub, and blacknose dace*

*tolerate poor water quality*

December 4<sup>th</sup>, 1911 – By petition of the property owners along Main Street, the city council resolves to build a storm sewer extending from Poplar Street to a culvert emptying in the west branch of the Wapsinonoc. The line will extend a total distance of one thousand, one hundred sixty-one feet, with a descending grad of 2.92 feet per hundred foot span for the first four hundred thirty feet, and then drop a total of three-and-a-half feet over the remaining seven-hundred-foot length. The winning contractor will be provided water from the city to tamp down the underlying soil level with the bottom of the tile.

August 15<sup>th</sup>, 1912 – The Rock Island Line sends the master carpenter of their Cedar Rapids district to repair the railway bridge across the Wapsinonoc. He and his men pour new cement into the cracked abutments. The tracks running between them are raised by five inches. For the first time, the city paves over their easement lines on Main Street, making sidewalks.

*Blue winged warblers expanded their range following agricultural development of the landscape.*

*They preferred the cut forests, the abandoned fields. The male sings an insectlike beeeeeee buzzzzzz.*

May 24<sup>th</sup>, 1923 – George G. Wright, owner of 127 acres of land straddling either side of the middle branch of the Wapsinonoc creek, dies without specifying an executor for his

will. The executor appointed by the court, J.E. Larson, petitions to sell the land in order to pay for his services as executor of the will.

*Red mulberry is native to the watershed.*

*Often found along the borders of fields and pastures, in wetter soil.*

*Find robins, cedar waxwings, and grey catbirds gorging on the wine dark berries.*

July 16<sup>th</sup>, 1925 – West Branch builds a foot bridge across the creek on South Downey street.

The editors of the West Branch Times bemoan that, with the increasing ubiquity of motorcars, townspeople are no longer swimming in the Wapsinonoc. Children and adults alike are forgoing skinny dips under the Rock Island bridge for driving ten miles to a defunct quarry.

*The Dickcissel, erratic and nomadic year-to-year, has an affinity for grasslands and savannas.*

*The Redheaded woodpecker: white-shirt, half-a-shirt, shirt-tail bird, tricolored woodpecker, jellycoat, flag bird, and the flying checker-board. Followed homesteaders west – small farms bordered by silver maple or black walnut or osage orange hedgerows mimicked the bird's preferred savanna habitat.*

March 2<sup>nd</sup>, 1929 – West Branch sends a train of well-wishers and a 72-piece marching band from the Wapsinonoc to D.C. to celebrate native son Herbert Hoover's inauguration. The band performs a “stirring” rendition of the Iowa Corn Song (*Io-wayyy! Io-wayyy!*  
*That's where the tall corn grows!*) before boarding.

*The Grasshopper Sparrow, “a queer, somber-colored, big-headed, short-tailed, unobtrusive little bird [that] did not come by its name because of its fondness for grasshoppers,*

*though it is never averse to making a meal of them, but because of its grasshopper-like attempt at song—if song it can be called.”*

July 16<sup>th</sup>, 1931 – A 34,348<sup>th</sup> person visits the banks of the Wapsinonoc to see the birthplace of President Hoover. The town’s population is 652. Allen Philbrick of Chicago paints the house as it looked in the previous century, the elder Hoover’s blacksmith shop reproduced in the background.

*Et cetera...*

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For historical anecdotes, we made use of the following archival issues of the *West Branch Times*, accessed through the West Branch Public Library Community History Archive (<https://westbranch.advantage-preservation.com/>):

- Vol. 36, No. 17 (February 16, 1911)
- Vol. 37, No. 7 (December 7, 1911)
- Vol. 37, No. 43 (August 15, 1912)

- Vol 47, No. 33 (May 24, 1923)
- Vol. 49, No. 11 (July 16, 1925)
- Vol. 53, No. 23 (March 7, 1929)
- Vol. 55, No. 42 (July 16, 1931)