

Downtown Milwaukee Meeting of the Wisconsin Council on Forestry

The Wisconsin Council on Forestry held a recent meeting at the Wisconsin Department of Natural Resources (DNR) Service Center in Milwaukee on September 13 and 14 that included a tour of the Ascent Building and the Forest Exploration Center in Wauwatosa. The Council is a diverse group of leaders in the forestry community who direct Wisconsin's efforts to achieve sustainable forestry and advise the Governor, state legislature and DNR on forestry matters. Many of the members live and work in the north woods and other rural areas of Wisconsin, so what could possibly bring 17 members (two of them remotely by Zoom) to the largest urban area in the state? And in a meeting place located under the Marquette interchange, one of the busiest highways in the state with 300,000 vehicles traveling on it each day? That question was on the minds of many Council members. The Council Chair, Tom Hittle, offered the answer at the beginning of day one: "To be effective in our mission as advisors on forestry related matters, we must understand the larger picture; we ask our neighbors in urban areas to understand forestry in the northwoods, so we must also seek to understand forestry throughout the rest of Wisconsin."



The first building visible in the background is the Milwaukee DNR Service Center with the Marquette Interchange overhead.

Highlights of the meeting focused on urban forestry and mass timber. Dan Buckler, the Urban Inventory Analyst with the DNR reported on the urban and rural inventory analysis and the urban heat island project. The urban heat island is a term used to describe increased air temperature caused by urban development. Pavement and buildings absorb heat during the day and slowly release it at night, causing higher air temperatures in the evening compared to rural areas with more trees and other vegetation. A key part of the heat island project involves citizen scientists measuring temperature around the

Milwaukee area in the morning and early evening. This is important research as it further explores the nexus between forests, ambient temperature and public health.

Laura Buntrock, the DNR's Urban Forestry Policy and Partner Analyst, and Ram Dahal, Forest Economist with the DNR teamed to address the second urban forestry presentation, an urban forestry economic study. The study analyzed the estimated economic impact of urban forestry to Wisconsin's economy. According to the study, the total economic contribution of urban forestry to Wisconsin is \$1.57 billion with 16,725 jobs. Included in the estimated value is \$672 million of labor and \$973 million of value-added contributions. The value added includes ecosystem services (removing air pollutants, reducing storm water, sequestering carbon, and energy avoidance) \$41.4 million of state and local tax contributions and \$95.9 million of federal tax contributions.

On the second day, Scott Lyon, a Forest Products Specialist with the DNR explained the state of mass timber in Wisconsin. Mass timber is a relatively new category of wood products comprised of multiple solid wood panels or boards nailed or glued together. It presents a building material alternative to concrete and steel that is strong and provides a solution for low-carbon construction and carbon storage. Scott's talk explained mass timber, its opportunities, challenges and future in our state before the Council went to tour the Ascent building in Milwaukee. The Ascent building, located at 700 East Kilbourn, is currently the tallest mass timber building in North America. It is 25 stories tall and contains more than 250 living units.



Council on Forestry members and guests assembling at the Ascent building for a tour.

Architects with the firm Kolb and Associates, Kevin Rogers and Jason Kolb, led the Council and guests on the tour, explaining the need to collaborate with the Building Department and Fire Department in Milwaukee to work through the building code to assure the building is safe. The first six floors of the building are traditional concrete construction. Mass timber construction starts on the seventh floor except for the pool on the ninth floor, where concrete supports that area of the building. There are two cement cores in the building to provide stability and the required safe area for fire department access. Overall construction costs were similar to a conventionally constructed 25 story building with the added benefits of sequestering carbon and the lower carbon emissions of wood construction compared to concrete. It is estimated the building construction reduces carbon emissions by 7,500 metric tons, the

same as removing 2,400 cars off the road for one year or heating 1,200 homes for one year. The Ascent building was the focus of the streaming show, “Engineering the Future”, season 2, episode 6 – Timber Skyscraper.

After touring the Ascent building, the group visited the Forest Exploration Center, located at 1800 Forest Exploration Drive in Wauwatosa. The Forest Exploration Center is a 67-acre green oasis located 10 miles from downtown Milwaukee. The center contains one of the best and last remaining remnants of the southern hardwood forests that once covered the area with large oak, maple, ash, beech, basswood and other species native to southeast Wisconsin. It is a state-owned property managed through a partnership between the DNR and the Forest Exploration Center. The purpose of the center is: “To provide a unique woodland learning environment where meaningful opportunities in forestry education, recreation and stewardship are accessible to the broadest audience. To foster a deeper understanding of forest ecology and sustainable forestry management practices for current and future generations.”



Tom Gaertner, President of the Forest Exploration Center leads a discussion about the center to the Council on Forestry members and guests.

Leading the tour were DNR foresters Eric Zenz and Mike Sieger, and center volunteers/board members Tom Gaertner, Mary Ann Buenzow, Dwayne Sperber, and Vicki Brzeski. The center is zoned “Conservancy”, the first land parcel zoned as such in the area. One area of the land is an urban tree demonstration project. Urban suitable trees are planted and protected from deer so local residents can view the different types of trees available and imagine how they might look in a yard. Other notable projects include planting a small forest populated with pre-settlement tree species and another planting to demonstrate changing climate adaptation by different tree species. The land has two deer enclosures

that demonstrate the effect a high population of deer have on forest vegetation. The center is home to a remnant population of northern flying squirrels, one of the last in the area.

There is counting device on one of the trails to record and download data on number of visitors, time of the day, and day of the week the trail is used. The device has found that 700 or more visitors may use the trails on a busy day. The trails are compliant with the Americans with Disabilities Act of 1990, with a crushed granite surface that can accommodate wheelchairs. The center is not a park or preserve, it has a management plan that prescribes forest management practices such as timber stand improvement or timber harvests to improve the health and species composition of the forest. Whenever such practices are planned for an area, the center's staff sets out signs on the ground and notices on the website and Facebook to explain the project. More information about the Forest Exploration Center is available at www.forestexplorationcenter.org.

More information about the Council on Forestry in general and the recent meeting materials can be found at councilonforestry.wi.gov.