

Land & Water Resources Department
2019 Flood Accomplishments

Property Acquisitions

- Dane County purchased 160 acres adjacent to the Pheasant Branch Conservancy. The parcel sits within the Yahara River Watersheds which flows into Pheasant Branch Creek, and ultimately Lake Mendota. The property is also located within the recharge area of the Frederick Springs, found south of the parcel. Restoration of the land will result in less runoff volume and nutrients delivered downstream to the Yahara Lakes.
- Dane County acquired 2 properties adjacent to Babcock County Park with over 600-feet of shoreline. In addition to added recreational opportunities, acquisition of these parcels would provide the County opportunities to better manage water flow through the Lower Yahara River and create efficiencies for the aquatic plant management program, including additional parking for mechanical harvesters.

Continuous Cover Program

- A total of 54 applications were received, reviewed and ranked for eligibility and 15 projects will be offered funding from the \$750,000 available for CCP.
- Due to the great response and need within the Yahara River Watershed, additional funding from the CLEAN budget will be used for eligible projects within its watershed providing an additional 9 projects to be funded and implemented.
- In summary, 24 projects covering over 500 acres will be converted from traditional row crops to permanent vegetation (native plants, cool season grasses, pollinator habitat, or pasture) for 15 years. These projects will help reduce water runoff volumes and phosphorus loading to downstream waterbodies.

Streambank Restoration Funds

- Assessments on flooding damage for 45 easements (177 acres) owned by the county are being conducted. Of the 45 easements, 12 were assessed and 10 were identified as needing repair. Staff is planning, surveying and designing repairs needed to fix these 10 flood damaged stream corridors. The remaining 33 easements are in queue and will be completed when access is not inhibited by vegetation and wet soils.
- In addition, 10 new sites have been identified that need repair which do not have an easement. Staff is working with the landowners for the county to acquire an easement and/or corrective measures for flood repairs.
- There are 20 sites that have been brought to staff attention that are marginal of needing repairs. These projects are being monitored if future repairs would be warranted.
- The ability to assess stream corridors and provide technical services can be limited based on amount of vegetation and saturated soil conditions. Staff will continue to evaluate sites, conduct planning and technical services, and provide funding as available for repair work.

Prevent Plant Workshop

- Staff held a prevent plant workshop for producers who have lands that are not able to be planted due to wet and/or flooded conditions. In some cases, producers are able to plant cover crops as a temporary cover to prevent additional erosion and increase infiltration. Staff is continuing to provide advice to producers as questions arise.

Aquatic Plant Management

- Aquatic plants in the rivers cause friction and reduce flow through the Yahara Chain of Lakes. In 2018, approximately 700 loads (over 3,000 tons) of aquatic plants were removed in the Yahara River for flood mitigation.
- Two new aquatic plant harvesters were added to the fleet in 2019 for a total of 13 harvesters that serve the Yahara River and Lakes.
- Dane County also purchased two barges and one barge mounted crane to assist with removing aquatic trash, logs, trees, and debris from the lakes and rivers that if not removed could impede flow.

Yahara River Flow Enhancement

- Water comes into the Yahara Lakes faster than it goes out. Thus, after repetitive and heavy rainfall events, the lake levels increase. The efficient movement of water through each lake is undermined by sediment loading in the Yahara River.
- The County developed a multi-year sediment removal project in the Yahara Lakes will take place in five phases, with each phase carried out as Dane County secures permitting.
- The first phase, taking place between Lakes Monona and Waubesa, is expected to begin fall 2019 and completed summer 2020. Engineering plans have been completed and the project is being bid for construction. The project will involve removal of approximately 40,000 cubic yards of sediment between Monona to Waubesa.
- Dane County has taken sediment cores and completed laboratory testing of contaminants for all five phases.
- For phases 2 through 5, Dane County is obtaining high resolution bathymetry data which will be used to develop engineering plans. Also, the bathymetry data will be utilized during construction to confirm adequate volume of sediment is removed at the proper location in the river.

Tenney Dam Fortification

- Dane County staff and WDNR have assessed the safety of the dam and no threats are present.
- In collaboration with the WDNR, additional reinforcement will be completed inside the Tenney Dam boat house to ensure the integrity of the structure when water levels in Lake Mendota at the 100 year water level.
- Plan drawings and specifications have been completed for the work and is anticipated to start in fall of 2019.

Urban Water Quality Grant

- The goals of Urban Water Quality Grant are to improve the quality of urban stormwater runoff entering Dane County lakes, rivers and streams, increase public awareness of urban water quality issues, and provide public education for urban stormwater quality improvement practices.
- The program provides financial assistance to municipalities in the form of cost sharing up to 50 percent of the total project cost, not to exceed \$500,000.
- In 2019, the program was enhanced to include water volume control as an eligible project type.
- In 2019, the program was revised to allow a continuous application process for municipalities that have varying budget cycles and improve efficiencies to implement projects.

Stormwater Improvements

- Parks staff repaired washed out culverts at the Capital City Trail roundabout in Fitchburg.
- For phase 2 of the Capital City Trail pavement restoration, a box culvert will be replaced with a clear span bridge to minimize flooding damages. The project is anticipated to start late summer 2019.
- For phase 3 of the Capital City Trail pavement restoration, Dane County has completed plan drawings to raise a portion of the Capital City Trail in Fitchburg to reduce trail flooding and add culverts to improve drainage. The project is anticipated to start in 2020.
- At the intersection of the Capital City State Trail, Badger State Trail, Military Ridge State Trail, Cannonball Trail and Southwest Bike Path, flooding is prevalent after large rainfalls. Dane County is collaborating with the City of Madison and the City of Fitchburg to complete hydrologic review, site investigation and design solution to improve stormwater and minimize flooding.
- Dane County Parks and Water Resource Engineering staff have inventoried and inspected all stormwater facilities installed within county park lands. The purpose of the work is to insure stormwater facilities are functioning properly to minimize runoff.

PARC Flood Grants

- The PARC Flood Grant provides \$1 million in funding for communities to repair parks and trails that were damaged by flooding.
- Applications were due July 31, 2019.
- A total of 11 projects were received and those projects are being ranked and prioritized.
- The final grant awards are expected for fall of 2019.
- A list of the applications for PARC Flood Grants is included.

Park Trail Closures and Cleanup

- CamRock Park Trails System was closed for 6.5 miles due to flooding, down trees and washouts. Park staff and volunteers with the Capital Off Road Pathfinders made repairs. The trail was opened fall 2018.
- Donald Park Trails was closed for 4.2 miles. Park staff and Friends of Donald Park made repairs. The trail was opened fall 2018.
- At Morton Forest, the trail to scenic overlook was washed out and repaired by Park staff
- Indian Lake Park and Halfway Prairie Wildlife Area Trails was closed for 3.5 miles. Parks staff made repairs and reopened in the fall of 2018.
- At Token Creek Park, approximately 1 mile of trail and 300 feet of boardwalk remain closed today due to high water levels in the wetland.
- Two major pavement washouts on the Capital City Trail near Longford Terrace in Fitchburg were repaired.
- Parks staff adjusted an equestrian bridge at Donald Park over Fryes Feeder Creek that was misaligned after flooding.
- Parks staff assisted with adjusting the pedestrian bridge at Walking Iron County Park over Black Earth Creek that was misaligned after flooding.

Park Boardwalk Repair

- At Token Creek Park, 1500 feet of boardwalk was closed and damaged due to flooding. The boardwalk was repaired by the Operation Fresh Start Graduate Crew and opened spring of 2019.

Park Campgrounds

- Babcock County Park had 12 sites closed in fall of 2018. The camp sites were repaired and opened for use in 2019
- Mendota County Park experienced flooding in the campground in August and September of 2018. The campground was repaired and reopened in spring of 2019.

Dog Parks

- All County dog parks had erosion damage to their trails. All the designated trails were quickly repaired to maintain public use.

Pier Damages and Repairs

- The Salmo Pond Fishing Pier was damaged during flooding. Parks staff removed the damaged wooden fishing pier and restored the gravel paths. Engineering plans for a new floating fishing pier are complete and the project is planned to be bid in 2019 for a 2020 installation.
- Two piers at Tenney Park were damaged. Lake Management removed the two piers totaling a length of 270 feet in 2018 and replaced with new piers in summer 2019.