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BROWN BRIDGE DAM REMOVAL AND THE BOARDMAN: A RIVER REBORN
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Summer is gone, fall is here and the end of another construction season is fast approaching. This autumn brings an educational opportunity for Drain/Water Resources Commissioners and their staff personnel.

The provisions of the new Wetlands Act (which also amends the Inland Lakes and Stream Act), Act 98 of 2013 (SB 163) are now in place. Many maintenance activities on County and Intercounty Drains are exempt, others will require individual MDEQ permits, and still others will be allowed under a General Permit that must be obtained on an annual basis. To help navigate these new requirements, several instructional seminars are being scheduled for various places around the state.

Yogi Berra once said “If you don’t know where you’re going, you might not get there.” Don’t let that be you. Please take the time to attend one of these instructional seminars and avail yourself of this learning opportunity, because, as Yogi also stated, “He’s learning me all of his experience.”
INTRODUCTION TO THE GRAND TRAVERSE REGION

The morphology of the region encompassing the Grand Traverse Bay is a happy accident of geologic patronage. The last ice age and attendant glaciation that fashioned the region in no small part created the globally rare if not miraculous presence of rivers and tributaries whose flows are reliably maintained year-round by groundwater. When the glaciers of the last ice age retreated some 11,000 years ago, they left behind outwash plains with a perfect sand-and-gravel media for filtering and storing precipitation. Flows are subsequently expressed at the springs that form the headwaters of the region’s rivers and tributaries. Water temperatures in these springs and tributaries are commonly in the range of 50 degree F while the rivers themselves can stay as cold as the middle to high 60 degree F range before the effects of longitudinal stratification take over and the flows become warm. (Some of the region’s rivers, notably those that emerge from lakes, get cooler as they get farther from their source) The Michigan grayling was present in the rivers and tributaries of the region but, as the effects of European conquest and settlement took hold, this species went the way of the passenger pigeon.

The first peoples of this region, the Chippewa and Ottawa, crisscrossed it in their nomadic fashion to take advantage of the seasonal abundance provided by the land and waters. Hunting, fishing, and gathering sustained them for many generations. During the early 1600s, European influences brought sweeping changes to both the indigenous cultures and the landscape. The French Jesuits were first among these; they named the bay that defined the region after the “long crossing” at its head, Le Grand Traverse. Fur trapping and trading followed, and then the indelible mark left by the working of the great pine harvest. Sawmill towns sprung up at river mouths all over the region to receive the treasure from inland via the river’s flow. One such sawmill town was to become Traverse City, located at the mouth of the Boardman (formerly the “Ottawa”) River.

BROWN BRIDGE DAM REMOVAL AND THE BOARDMAN: A RIVER REBORN

Nate Winkler, Biologist, Conservation Resource Alliance
THE BOARDMAN RIVER AND DAM CONSTRUCTION

When the pine played out, agriculture and tourism became the face of the landscape. An urban population at Traverse City resulted in a need for electricity. Harnessing the power of rivers such as the Boardman using dams and gravity was the most convenient mode of power generation in the late 1800s and early 1900s. Numerous dams were built in the Boardman River watershed over the years but, for purposes of the discussion regarding the current removal/modification project, only those on the main-stem are considered in this writing.

The first dam built on the Boardman, the Union Street dam constructed in 1867, was used to power a flour mill. It is the first barrier upstream of Grand Traverse Bay. This dam, comparatively low at 9 feet with a berm-length of 450’, impounds the naturally occurring Boardman Lake (249 acres) behind it and an additional 80 acres. The next three dams were developed to produce hydroelectric power.

Immediately upstream of Boardman Lake is the 900’ long and 30’ tall Sabin dam built in 1906, impounding 40 acres. The Boardman dam, constructed in 1897 approximately one-half mile upstream of Sabin, is the highest dam at 41’ with a berm length of 900’. The pond behind the dam is approximately 103 acres in size and inundates

The Brown Bridge impoundment area after dam removal. Photo courtesy of John Russell, Great Lakes Images LLC.
what’s anticipated to be the most raucous section of the Boardman in terms of vertical drop. An additional dam, Keystone, had been constructed immediately upstream of Boardman but it washed out in 1961 after a small dam on Swainstons Creek blew out above Keystone. The combined catastrophes nearly destroyed the Boardman and Sabin dams.

The final hydroelectric dam was at a former sawmill site called Brown Bridge, which is approximately 12 river miles upstream of Traverse City. This project was completed in 1920-21 and created an impoundment of almost 200 acres behind the 30’ tall and 2,400’ long structure.

With the exception of Union Street dam, which has perhaps as much concrete as soil, the dams were constructed from sand for the majority of the structure in the form of high, wide berms with spillways and powerhouse superstructure filling out the balance. The uninitiated might consider these latter two components the “dam” but the sand berms impound the river.

**DECISION TO REMOVE AND MODIFY THE BOARDMAN RIVER DAMS**

A process and accompanying legal body was developed in 2005 to determine the fate of the four dams on the Boardman River main-stem. The legal body is the Implementation Team (“IT”) and consists of voting representatives from Grand Traverse County (owners of Sabin and Boardman Dams), the City of Traverse City (owners of Union Street and Brown Bridge Dams), the Grand Traverse Band of Ottawa and Chippewa Indians, the U.S. Fish and Wildlife Service, the Michigan Departments of Natural Resources and Environmental Quality, the Michigan Hydro Relicensing Coalition, and Traverse City Light and Power. Ex-officio members include the Grand Traverse County Road Commission, the Conservation Resource Alliance, the Grand Traverse Conservation District, the Watershed Center Grand Traverse, Rotary Camps and Services, and Garfield Township.

Looking downstream toward the dam in early July 2013.
The Implementation Team formed the Boardman River Dams Committee (“BRDC”), which was open to anyone who wanted to participate. BRDC was charged with assessing the social, economic, and biologic benefits and detriments of various dam disposition options. Extensive and, some would suggest, exhaustive public and agency interaction and dialogue focused for four years on how to address the aged infrastructure. During this time, over 1,000 participants (local, Tribal, State, and Federal agencies, private citizens, and non-profit organizations) participated in 180 publicly held meetings. the BRDC fielded and answered 2,000 questions concerning dam-related issues. Public opinion was also sought through the distribution of 18,000 surveys to stakeholders.

One consequence of the BRDC process to recommend the fate of the dams was the generation of a feasibility study for renovation that was performed by an engineering outfit selected by a working group of the BRDC. The estimated price tag to bring the hydro projects up to Federal Energy Regulatory Commission (FERC) standards to produce electricity was $8-$15 million dollars. The revenue from dam operation was estimated at approximately $8.5 million over 30 years, during which time an unknown number...
Looking upstream from the dam, approximately midway through the project of future requirements for costly regulatory upgrades might occur.

A second result of the BRDC process was the development and fielding of 80 alternatives for the disposition of the dams. The ultimate decision by the dam owners, after rigorous deliberation, was to remove Brown Bridge, Boardman, and Sabin dams. The Union Street dam would be modified to facilitate non-jumping fish passage while also acting as a barrier to prevent sea lamprey migration into the interior. That decision was historic. This dam removal/modification project is the largest and most comprehensive of its kind in Michigan and will serve as a model and template for communities embarking on similar initiatives in the future.

BROWN BRIDGE DAM REMOVAL: A SYNOPSIS OF THE PROCESS

In the final analysis, there was no ‘low-hanging fruit’ when it came to deciding which dam to remove first. Each presented its own unique brand of consternation. The final determining set of factors that led to the selection of Brown Bridge may be the most salient. The Team chose to remove first the dam that created the most ecological damage, impounded the most acreage, inundated the most river mileage, fragmented the highest amount of river mileage, and impaired temperature the most in downstream flows (during summer especially, when warm surface water is discharged from all the hydro facilities, causing an unacceptable increase in water temperature in the river.)

The process of getting on-the-ground aspects of the project proceeding to construction involved satisfying obligations set forth under the National Environmental Policy Act (NEPA). The NEPA analysis was fulfilled through performance of an Environmental Assessment (EA). The federal sponsor of the EA was the U.S. Fish and Wildlife Service and was shepherded by both the project consultant (AMEC) and the U.S. Fish and Wildlife Representative on the IT.

Other requirements included the procurement of joint permit from the Michigan Department of Environmental Quality and the U.S. Army Corps of Engineers for work in rivers and wetlands, State Historic Preservation Office (SHPO) clearance, a Native American archaeological investigation, and a soil erosion and sedimentation permit from the County. The project also needed an “eagle-take” permit from the U.S. Fish and Wildlife Service, due to the presence of nesting bald eagles in the vicinity and the chance of loss due to nest abandonment.

An issue that might not have been emphasized as much as needed, in hindsight, was sediment management. Significant sediment deposits formed over the years at Brown Bridge. While the lighter, finer organic material was carried...
furthest into the impoundment toward the dam, the coarser and heavier material dropped out closer to the river’s inlet, forming an alluvial delta of considerable size.

One of the first project tasks involved determining where the relic river channel coursed beneath the sediment and out in the reservoir itself under water. The dual effort of a high-tech bathymetric survey was coupled with the low-tech tapping of the reservoir bottom with a chimney cleaning rod, with gradations marked along its length. In addition to the rod, fishing line with heavy sinkers attached to tap the bottom provided a means for determining the location of the flooded channel. Locating the channel at the head of the reservoir, beneath many thousands of cubic yards of sand, required a somewhat different methodology. Because recent draw-downs totaling 6’ exposed a large portion of the delta, the work was less labor intensive than it otherwise could have been. The chimney rod utilized in the prior exercise was advanced through up to 13’ of sand along pre-surveyed transects. Examining these using GIS technology revealed the underlying topography and the relic channel.

With the channel identified in the delta, the task of exposing it during the drawdown and removal fell to highly skilled equipment operators using heavy machinery to dig and remove the alluvial overburden to expose the riverbed. The sediment was moved up-country (above the 100-year floodplain elevation), away from the channel and graded to achieve a somewhat natural appearance. Once water was coursing through the channel, sediment traps were used to remove material that had been mobilized when the channel was placed on-line. The final tally on sediment handled in this manner was approximately 260,000 cubic yards.

This process yielded gains not anticipated when, on October 6th, the dam structure failed during the initiation of final dewatering (the level of the reservoir was being maintained at 16’). Almost all of the remaining water escaped in 6 hours. The permitted draw-down rate of 6-12” per day would have taken approximately 3 weeks. An estimated 7,500 cubic yards of sediment was released that day. Had the extensive and costly sediment management not occurred upstream, the consequences of sedimentation downstream would have been more disastrous.

Financing the Brown Bridge project proved to be as much of a challenge as actual construction and restoration. Twenty-five different funding sources, each with different requirements for how the funds could be spent, had to be coordinated. Major funding was provided by (but not limited to) the Bureau of Indian Affairs, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, the National Fish and Wildlife Foundation, and the Great Lakes Fisheries Trust. Total project cost for Brown Bridge removal and channel restoration is estimated at $4.4 million.

CONCLUSION: A DAM ELEGY

Brown Bridge dam is not the first nor will it be the last dam to be removed in Michigan. The tide is turning in the hesitancy toward removing the aging structures that impound and fragment Michigan’s renown rivers. While the ecological and aesthetic benefits should be undisputed among biologists, it’s often economics that drives their removal. In addition to being regulated by government bureaucracy, dams have a finite lifespan. As such, when costs for maintenance and efforts to bring them into compliance with state and federal safety standards exceed the expected return-on-investment, a decision is needed. Either a continual subsidy to maintain the dam for private benefit must be borne on the backs of taxpayers or an imminent liability may be removed to the benefit of Michigan citizens and the public trust resource held for them.
WARD’S FLOODPLAIN MODEL
Mark Walton, Service Hydrologist, National Weather Service

Walton engages in outreach efforts to educate the public about watershed dynamics. His audiences are often school-age, presenting a challenge to even the most seasoned educators. Seeking an alternative to “death by PowerPoint,” he and his outreach team developed a tool they call “watershed in a box.” The WARD’S Stormwater flood plain simulation system provides a hands-on method to help learners understand the effects of human development in and near the floodplain.

Walton noted, “the model is simple, easy to use, low tech and portable.” As a tool for environmental education, the model raises awareness of critical floodplain issues. “There are three ‘Plug and Play’ headwaters, with two more in development.” The three acrylic headwater trays represent a wetland, a parking lot, and a retention pond. The system includes materials to simulate levees so that students can gage the effects of modifications in the floodplain. Slope and rainfall intensity can also be varied and the results measured.

“Learners can gage the runoff footprint of a ‘big box’ store vs. other usages,” Walton said. The model can be used with all age groups, including adults. “The Illinois Association for Floodplain and Stormwater Management used this model in a court case to illustrate floodplain activities.”

Beginning with students in the 5th grade and higher, Walton presents case-studies that model flood risk factors such as replacing the wetland headwater model tray with a tray and materials that simulate the impervious surface of a parking lot and various manmade attempts to minimize flooding. Students then measure “the fate of rain” as it travels through and exits the model. Classroom demonstrations include measurements that are recorded using Excel spreadsheets and translated into hydrographs that “help participants visualize what is happening in the model.” Students run a series of trials with the same rainfall while altering the characteristics of the watershed. They record the stream stage every five seconds and graph data to see the affects of land use changes on the river system and the watershed. A topographical map that shows floodplains in the students’ own communities extends the modeling. “We’re trying to help them connect the dots between various scientific and social disciplines.”

Whether the demonstration is for students exploring careers or to illustrate floodplain dynamics to policy-makers, the goal is to “create a flood-safe community,” Walton said. The National Weather Service has launched a public information
Campaign named Turn Around, Don’t Drown. “About 100 deaths occur each year due to flooding, many resulting from motorists driving into flood water.”

Development of the model is ongoing. Additional curriculum would include such things as no adverse impact; ice jams (that would be simulated using frozen sponges); and sediment transport (likely using recycled plastics to demonstrate.) Walton anticipates the creation of additional headwater types that demonstrate the effects of low-impact design methods, i.e. porous pavement, storm water best management practices, bio-swales, rain gardens, and green roofs.

There are four WARD’S models in the state. They are owned by MDEQ, Grand Rapids office of the National Weather Service, Detroit NWS, and Marquette NWS. “Get to know weather service, they may let you borrow their model,” Walton advised.

In other news of interest from NWS, Walton announced that precipitation frequency studies were just updated and placed online (http://www.nws.noaa.gov/oh/hdsc/index.html). The site is interactive, allowing users to select their area of interest and view models of 1 to 1000 year storms. “The new studies incorporate thirty additional years into the previously-existing data from 1971. “It will come as no surprise,” Walton said, “that we’re seeing more intense rainfall patterns and significant local affect.”

See the WARD’S Stormwater Floodplain Simulation System: https://www.wardsci.com/store/catalog/product.jsp?catalog_number=805770

**FISHERY HABITAT RESTORATION ON THE COLDWATER RIVER**

Brad Boomstra, Kent County Drain Office and Aaron Snell, Streamside Ecological Services

Boomstra and Snell discussed funding and design challenges for their project on the Little Thornapple Intercounty Drainage District (ICD.) Fishery conservation group Trout Unlimited owns approximately 120 acres along the drain that is maintained for recreational use. The existing drain “was sort of embarrassing,” Boomstra admitted. The 30-ft trapezoidal drainage channel lacked characteristics that would encourage coldwater aquatic species. “Project design included proven concepts that would improve habitat while maintaining drainage capacity.” Decreasing bank erosion, maintaining natural appearance with low impact to the riparian area, and cost effectiveness were among the team’s priorities.

The constraints and challenges were “typical of those found any time we are working in a stream, perhaps more so when the stream is an intercounty drain.” The Little Thornapple ICD was established in 1917 to provide agricultural drainage. It runs through one of the first agricultural areas developed in Kent County. The project team sought to balance agricultural needs with recreational use and riparian interests.

With $60,000 in grant funds from the National Fish and Wildlife Foundation and the U.S. Forest and Wildlife Service available, the team was able to gather the remainder of the $125,000 total cost, much of it “in-kind.” Then began the task of installing habitat structures that would not create more erosion or reduce drainage capacity. Project design specified the use of 50-60 ft lengths of wood. “Each...
log was branded, so it could be identified if it came loose and washed up at a different site,” said Snell. The logs were arranged in chevrons or criss-cross and anchored by 1-inch steel bars with V-point on one end. Mike Gregg, MDARD representative on the Intercounty Drainage Board, noted that the contractor was integral to the project; Ross Jackson (Jackson Dirt Works) and Mel Plockmeyer (Quantum Construction) devised the pins that were used to fix the logs in place. The construction team drilled holes through the logs and then hammered the pins in using the excavator bucket. “The logs stuck so well into the river bed that the contractors couldn’t pull them out,” Gregg noted.

Snell noted that he was impressed with the five-year monitoring plan (2010 – 2014.) The DEQ permit required observation of biological diversity, scour chains, bank pins, benchmarks, and permanent cross sections. “I live close to the site and have used the area as a classroom,” said Snell. “We catch the trout and tag them through the fin so that we can track populations.” Monitoring to date reveals that all structures have remained in place. “Bank accretion is more profound than bank erosion and no log or debris jams have been observed. Best of all, there are seven times as many trout. In 2010, 55 of the fish were found in a mile; 2011 saw 208 and there were 377 found in a mile of the stream by 2013. Eight hundred per mile is the benchmark we would hope to reach.”

The project demonstrates that County Drains can be engineered to accommodate coldwater and warm water Threatened and Endangered (T&E) species while maintaining erosion control and effective drainage. The use of on-site materials, such as the nearby trees that were contributed as part of the needed matching funds, can leverage costs while providing a natural appearance and long-lasting solution.

**CONSOLIDATION OF DRAINS**

Stacy Hissong, Fahey Schultz Burzych Rhodes PLC

Why and when does it make sense to consolidate drains? Hissong discussed the engineering and administrative perspectives that should be considered. Very often, the justification for consolidation can be “cleaning up past ills,” Hissong said. “When multiple drains are operating as one system, go to the townships and explain how consolidation will simplify drain improvements and subsequent assessments.

Ms. Hissong shared her views following legal proceedings over the consolidated Gratiot County 181 Drain. The controversy began in a district that is known for challenging drain projects. The Gratiot County 181 Drainage District was formed by extending the District (adding lands) under Chapter 8, which requires a petition signed by five landowners in the District. Landowners brought suit, claiming violations of notice requirements and, further, that the District should have been consolidated using the procedures outlined in Chapter 19, requiring a petition with 50 signatures from landowners in the District. A Circuit Court ruling in favor of the Drain Commissioner was reversed on appeal. The Drain Commissioner was granted leave to appeal to the Michigan Supreme Court; Hissong participated in oral arguments in January 2013. While the Supreme Court reversed the Court of Appeals, finding no violation of notice procedures, they offered no clear direction as to signature requirements.

Despite the controversy, consolidating drains can be a useful tool to accurately reflect changes in the watershed. Hissong recommends referring to both Chapter 8 and Chapter 19 to guard against potential suits. “Combine (both sections) with the maintenance and improvement petition and be sure to cite both sections in the petition.” She further recommends getting fifty signatures rather than five. “Ask ten lawyers, you’ll get 14 answers.” For a ‘belts and suspenders’ approach, Hissong advises also obtaining a petition from a City, Village or Township in the Drainage District that is proposed to be consolidated. Note that Road Commissions and MDOT cannot petition for consolidation. The petition should specifically mention each drain and each drainage district to avoid claim of error. “Have an attorney review the petition, it doesn’t take long and provides safety.”
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Hisgong recommends that the Board of Determination issue separate decisions regarding necessity and consolidation. The Board may determine the maintenance is necessary but not the consolidation. In the First and Final Orders of Determination, be clear as to the new (consolidated) drain name and include maps. Take care with the process, once consolidated, the district cannot be “unconsolidated.”

Kulhanek, Kogge

NATIVE PLANT PRIMER
Stu Kogge and Brandon Kulhanek, Cardno JFNew

Kogge and Kulhanek shared suggestions from their years of expertise in designing drainage systems that use native plants. “We use natives for their ability to uptake nutrients, salt tolerance, erosion control, and biodiversity,” said Kogge. Native species thrived here long before the area was settled. “They typically have longer root systems and are better adapted for obtaining water and nutrients. Natives generally require less maintenance and, once established, need little to no watering or fertilizers.

Establishing the native plant community will require attention, as the first years are devoted to developing root mass. After gaining that foothold, natives become the preferred habitat for wildlife. People like natives, too. Their benefits include “lower maintenance, storm water filtration, soil stabilization, air pollution reduction, wildlife attraction, and aesthetics,” Kogge enumerated.

Considerations for selecting a successful plant community include the common factors of nutrient requirements, water, sun (relative shadiness), and soil composition.

“Start with the ‘Ws,’” Kogge advised.
- What is your purpose for choosing natives v. non-natives?
- Where do you want to put them?
- What are conditions?
- What are expectations?
- When do you want to see them?
- What is your budget?
- When are you planning on installing?

Kogge and Kulhanek provided a comprehensive list of natives suitable for drainage projects. Roadside drainage channels should use salt-tolerant species (halophytes.) “MDOT and Road Commissions are likely to use more salt for ice and snow control. Chloride-based salts, while readily available and effective, raise soil pH and are highly corrosive,” Kulhanek observed. Road salt can be destructive to plants used for erosion control because it damages the fungi that support root structure. Mycorrhizal fungi form a symbiotic relationship with the roots, assisting with nutrient uptake and aiding the plant’s ability to withstand periods of drought. The very thin filaments of fungi populate the area around vascular plant roots. “A thimble full of healthy soils can contain several miles of these fibers,” Kogge said. “Salt damages the fungi, impairing the root mass, which can cause dehydration and interfere with photosynthesis, respiration and transpiration.” Salt applications in late winter or early spring are more damaging than earlier applications.

While there are ice-control products that are less corrosive (Calcium Chloride) or non-corrosive (Calcium Magnesium Acetate), they are more expensive than the commonly used NaCl (Sodium Chloride.) Kogge and Kulhanek recommend talking to Road Commission representatives to find out what products they are using along roadside drains.

In all cases, plants should be selected for their relative suitability to a specific site. The Cardno/ JFNew team offered a comprehensive list of plants for various conditions, including shady areas (dry or wet), and sandy or clay soils. An important resource for selecting natives is the Michigan Natural Features Inventory housed at Michigan State University (mnfi.anr.msu.edu.) “To be successful, space plants correctly, prepare the soil, and plan for other methods to control erosion for the first 1-2 years, during the important root-formation phase.”
You need a contractor. Do you request bids or pick up the phone to call a contractor? Morrison said the answer is “situational. We often call a trusted contractor to walk the drain and get a general idea of cost.” Bids might not be taken for work that would cost less than $10,000. Plockmeyer suggested bringing two or three contractors in for estimates.

Jackson advised the use of local and trusted contractors who can “mobilize efficiently.” Relationships and knowledge of the contractors capabilities and previous work are important factors.

For larger jobs, $10,000 or more, Jackson advised getting multiple bids. “Be sure you know the contractor’s work,” he cautioned. “Start a contractor with a smaller job so you can be sure they understand how to fix an eroded bank.” Plockmeyer agreed, “With a trusted contractor, you will know that the riprap or other stabilization method will be effective and long-lasting. Just because someone owns an excavator, doesn’t mean they have the experience and skill to execute.”

Morrison commented on the costs associated with obtaining bids. “How much money do you spend before you even begin?” The answer to that is also rooted in costs.” If someone asks why you chose a contractor or agreed to costs, you need to give a fair and defensible answer.”

Brian Cenci of ENG., the panel discussion facilitator, asked “Why would ten quotes be bad?”
Plockmeyer responded, “if you have ten qualified bidders, great! That’s not likely, though, within the county. Jackson agreed that it’s more likely to have two or three qualified bidders in a county. “To get ten quotes, you have to go to multiple counties. Contractors outside your county will have to travel and that adds cost,” Ross suggested.

Both Jackson and Plockmeyer advocated for mandatory pre-bid meetings. “Make sure everyone understands the work scope” so that bid comparisons are easier. Plockmeyer noted that pre-bid meetings give contractors the opportunity to make suggestions. “You could bring the price down by having the conversation,” Mel said. Morrison favors the preliminary meetings as a way to communicate drain maintenance standards. Plockmeyer said, “Standards can be brief, they don’t need to be ¾” thick, just be clear.” Specifications for the scope of the desired maintenance should also be expressed clearly, as experienced contractors will price accordingly. “Contractors are an extension of our office,” Morrison said. “Prescribe enough to get a uniform result, then let them do their work in the most efficient manner.”

“What can drain offices do to help the bid process?” Cenci asked. Jackson and Plockmeyer agreed that managing landowner expectations is at the top of the list. “We need to communicate clearly and concisely with owners,” Morrison said. Plockmeyer suggested that offices provide a copy of the inspection report to the contractor to aid them in discussions with landowners “whose expectations may exceed the project scope.” Be sure, also, to advise landowners of the Drain easement and make them aware that the contractor has the legal right to be there.

Tree removal during maintenance presents different challenges, depending on the location of the Drain. Morrison urged Drain Offices to develop specifications for removal and disposal that address different standards for agricultural, forested, and residential areas. “Burn permits can be difficult to get and chipping is very expensive,” Jackson said, and “farmers will burn (the removed trees) themselves.” The contractors noted that clearing woody debris can easily be two-thirds of the maintenance project cost. Plockmeyer again asked that Drain Offices communicate clearly with residents in the project area. “Owner expectations may be that the trees will be cut, split, and stacked in the back yard”

Specifying the handling of stumps is also important to contractors. “Do we treat it and leave it, bury the stump, or remove and dispose? With disposal costs at $35/ton, who pays to dispose of a ten-ton stump?” Jackson asked. Walking the project area can be very helpful in reaching an accurate bid price, as the number of trees is less important than their size.

The contractors also expressed that Drain Offices can aid them by identifying tile outlets and leaving appropriate materials at the site. “(We) can work efficiently, rather than having to go back to the office,” said Jackson.

**EASEMENT NEGOTIATION & CONDEMNATION**

Mike Woodworth & Matt Heos, The Hubbard Law Firm

Mr. Woodworth began his remarks by the importance of drainage to today’s ‘Pure Michigan.’ After his 1814 exploration, General Duncan MacArthur wrote, “from my observation, the Michigan Territory appears to be not worth defending, and merely a den for Indians and traitors. The banks of the Detroit River are handsome but 9/10ths of the land is unfit for cultivation.” Drain infrastructure quite literally made Michigan possible and “cultivate Michigan they did,” Woodworth said.
Property rights, also termed fee ownership, are likened to a “bundle of sticks” – all right title and interest in and to the land (surface rights, access, subsurface/mineral, air, drainage, etc.) Owners are constitutionally protected against the “taking” of property or any rights thereto without just compensation.

For Drain Commissioners, the discussion of easements requires balance between societal priorities and property rights. Early settlers understood the need to drain the lowlands for cultivation and the eradication of malaria and cholera. Today, Michigan law requires that a drainage project be found necessary for public health, convenience and welfare.

Modern easements are understood to be a limited right of usage for a specific purpose. Woodworth urged Drain Commissioners to be specific in structuring easements. Citing the Red Run Drain case, Woodworth noted the difference between easements that prohibit the construction of permanent, non-movable structures vs. those that provide authority to the DC to remove a structure. The Court ruled in the Red Run case that the DC can remove a structure in the easement area but also presumes that the owner had the right to build the obstruction. Carefully constructed easement language can prevent costly misunderstandings. Understand what you need and can reasonably anticipate as a need in future and draft the easement language carefully to preserve the property owner’s interest,” Woodworth advised. “If you want a broad easement interest, you will have to pay.”

The amount to be paid can be vexing to the Drain Commissioner. Let’s say one (or more) landowner(s) understand the benefits of building the drain and, wishing to keep costs low for everyone in the District, decide to donate an easement along their property. Great, until one landowner wants $35,000 to grant the same limited rights. The law requires “fair and equal treatment” of all landowners in the District. “Your attorney suggests you may have to condemn. Now there is your attorney’s hourly rate to pay and the potential to pay more,” said Woodworth and “if you offer that owner a lesser amount to settle, you now must explain your decision to other owners.”

Heos and Woodworth recommend meeting and talking with landowners before writing a $0 Good Faith Offer for an easement. “Ask if the owner is interested in giving the easement for no or low cost and have the agreement in writing before presenting the Good Faith Offer that is required by law. A bevy of attorneys out there specialize in property rights. They earn up to one third of the difference between the good faith offer (of zero plus benefits received) and the final value as determined in court. The end result could be $300,000 for the easement, $100,000 to the attorney, and $30,000 to the appraiser, very costly, indeed.”

Drain Commissioners may find these cases difficult to understand in that all costs must be borne by the District and will be billed back to

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Continued on page 24
“The future is now,” began Genesee County Drain Commissioner (GCDC) Jeff Wright as he hosted an enthusiastic crowd of more than a hundred at the June 28th groundbreaking ceremony to launch the construction phase of the water intake structure and pipeline that will serve member communities in three counties. The ceremony was also a celebration for the project stakeholders, some of whom worked many years to bring this project to fruition.

The City of Flint’s first efforts to establish a water pipeline date back to the 1960s. A project proved elusive, though, and the Detroit Water & Sewerage Department (DWSD) began serving the Genesee County municipality and surrounding areas nearly 50 years ago. Concerned over a history of double-digit rate increases from the DWSD, GCDC Wright (who also serves as Genesee County Public Works Commissioner), together with the County’s Board of Commissioners and City of Flint Mayor Dayne Walling, sought consensus for a way to stabilize rates.

With the 30-year contract between DWSD and the City of Flint due to expire, GCDC Wright commissioned a feasibility study to identify the most reliable and cost-effective alternative to assure water delivery, while providing the greatest flexibility for future economic development in the region. The 2006 study found that pipeline construction and operating costs would be less expensive than continuing to purchase water from DWSD. The study projected DWSD costs at $2.1 billion over the coming 25 years, while constructing and operating a pipeline would cost about $1.9 billion over the same span. “Those projections were based on a conservative estimate of the maximum possible costs for building the pipeline and the extreme minimum operating, maintenance and commodity charges from DWSD. It doesn’t include the cost for DWSD to build a second pipeline, which the Department itself acknowledges it would need to build to serve its 2 million customers,” Wright said. “We have already seen bids for construction of the intake structure and materials like concrete pipe come in at less than our projected costs. Of perhaps greater significance, after the initial 25-year period, costs are projected to be less than 25% of the cost required to purchase water from DWSD.

The Karegnondi Regional Water Planning Group, forerunner to the Karegnondi Water Authority (KWA), was formed to navigate the permitting process and provide representation to member counties and communities. “This pipeline has the potential to grow agriculture and other industries in Sanilac, Lapeer, and Genesee counties,” said Wright. The pipeline will supply untreated water to municipalities, industrial customers, agribusiness and residents in a region encompassing 2,400 square miles and more than a half million people. “These communities have a desire to control their destiny.”

CHANGING THE POLITICS OF WATER

Transforming desire into reality began when Genesee County placed the winning bid for
property along Lake Huron that was offered at auction by DTE. Jamie Curtis, Chair of the Genesee County Board of County Commissioners, described that day and applauded the vision of “available abundant and affordable water that will transform our region from ‘blue collar’ to the blue and green jobs of advanced manufacturing.”

“Water independence is critical to Flint’s growth and recovery,” concurred Flint Mayor Dayne Walling. The region along the I-69 corridor, already served by Flint’s Bishop International Airport and the Blue Water Bridge between U.S. and Canada, is expected to expand as more affordable water becomes available via the pipeline. The potential for agricultural processing operations earned the project support from the Michigan Agribusiness Association.

The State of Michigan took a bow at the ceremony, as well. In accordance with requirements of the multi-state and legally binding sustainable water agreement known as the Great Lakes Compact, Genesee County applied for a new water withdrawal permit from MDEQ. The Department determined that the withdrawal would be an inter-basin use and not a diversion of water out of Lake Huron. “This project is a great example of the three Departments (MDARD, MDEQ, MDNR) working together,” said Nancy Nyquist of the Michigan Department of Agriculture and Rural Development. “Every aspect of the project was vetted through our Departments.” Liane Shekter Smith of MDEQ expressed Director Wyant’s enthusiasm as “a partner in economic development and leader in environmental stewardship. Water is vital to public health and the economy.”

Sanilac County Drain Commissioner Greg Alexander commented on his County’s partnership in the project. “Our people are all on community wells. They want access to high-quality water; this project will deliver that and allow us to reposition ourselves.” Mr. Alexander serves as the KWA Vice-Chair. Alexander noted the difference between public investment and government spending. “Investing these funds will pay back to our communities,” Alexander said. The Karegnondi project is expected to cost about $274 million.
WHAT’S IN A NAME?

The native Huron-Petun (later known as Wyandot) people referred to Lake Huron as Karegnondi, translated as “big lake.” Cartographer Nicolas Sanson’s 1656 map of the territory bears that name for the “fresh water sea” encountered by French explorers. Karegnondi bridges the centuries to honor that early heritage.

At the June 2013 ceremony, making history was at the forefront. “This is truly a ‘once in a century’ opportunity,” Mayor Walling said. GCDC Wright lauded the many individuals, some elected, many working in Public Works Departments in their community, who “came together for the good of the people to build this project.” He had special praise for Ed Kurtz, former Emergency Manager for the City of Flint, and Jerry Ambrose, Financial Advisor to the Emergency Manager, whose efforts he says were instrumental in moving the project forward.

Genesee County Commissioner Jamie Curtis pledged, “We’re ready to deliver. If the Governor is looking for examples of government agencies working together on a grand scale, look here. Our friends in the building trades will deliver on time and within budget. Let’s start building!”

KWA BOARD

Dayne Walling, Chair
Jeff Wright, CEO (Genesee County Drain Commissioner)
Greg Alexander, Vice Chair (Sanilac County Drain Commissioner)
Jamie Curtis, Board Member
Dale Kerbyson, Board Member
Joseph Suma, Board Member (Lapeer County Drain Commissioner)
the same people who brought suit. “There is a lack of comprehension on the part of landowners and some municipalities that litigation or other costs to the District ultimately are detrimental to the entire district,” Woodworth said.

To whom do you make the offer for an easement? Heos described some of the tools available to identify corporations or other business entities whose names may appear on your assessment rolls. “There is no substitute for a title search to determine all property owners of record,” Heos said.

**GRANT-SEEKING FOR THE DRAIN OFFICE**

**Harry Sheehan, Washtenaw County Water Resources Office, Keith McCormack, Hubbell Roth & Clark, Jim Hegarty, Prein&Newhof**

The Stormwater, Asset Management and Wastewater (SAW) grant program will make $420 million ($97 million in the first year) available to municipalities and other public bodies via Great Lakes Water Quality Bonds. SAW provides grants for storm water and wastewater asset management plans, storm water management plans, project planning and design, and technical, legal or administrative preparation for creating a storm water utility. SAW also provides loans to construct projects identified in an Asset Management Plan. Local match requirements are 10% for the first $1 million and 25% for the next $1 million.

Previous funding opportunities, such as the SRF (State Revolving Fund) and SWQIF (Strategic Water Quality Initiative Fund), had “high entry fees in that they required developed plans and the consulting fees that come with them,” said Sheehan. SAW features a simplified process and, with just $420 million available, Sheehan urged DCs to review their Drainage Districts to identify likely candidates. “There is likely to be much interest in this funding program. Funds will be awarded ‘first-come-first-serve,’ so prepare now.” Applications review begins on December 2nd.

“SAW is focusing on Asset Management,” McCormack said. For Drain Commissioners, eligible projects are likely going to be aimed at water quality. “The goal (of the asset management approach) is to produce self-sufficient projects.” While matching funds will be required for grant-funding, “the key thing about match is that it can be staff time; $10,000 worth of staff time can make you eligible for $100,000 in funding.”

Open drains are eligible. DCs can submit a storm water management plan, as long as it addresses water quality. “(SAW) won’t pay to extend sewers in general but, if leaking septic and sewers would address water quality, that could be funded,” McCormack said. “It’s important to frame the application correctly.” A Resolution from a municipality is required for the application. “MDEQ personnel will preview resolutions to assure that language is acceptable,” Sheehan noted. Applications can be found on the MDEQ website.

Jim Hegarty of Prein&Newhof discussed funding opportunities for “green street” projects. Hegarty offered a brief definition of ‘green’ projects as those that “manage storm water in ways that minimize runoff and improve water quality.”

“When it rains, it pours, and then it floods. Permeability affects peak stream flow; green infrastructure tends to shave the peak off the hydrograph. In one career, I have seen storm water management come full circle. Once, our solution was to move rainfall run off to the river quickly. Now, rainfall is captured on site and held as long as possible.”

Hegarty described work on Lake Street in Whitehall. “Along the street is an Alcoa parking lot as big as a golf course and a former tannery. Across the street is White Lake, designated an “Area of Concern”

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**Hegarty, McCormack**

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(AOC) by EPA. “It’s dirty as all get-out and they’re willing to throw money at it.” Actually the project wasn’t funded the first time the City applied but went through the second time. “Whitehall wanted to reconstruct the street; the EPA funded Michigan’s first all-green street. Every drop that falls on it is touched by at last two green measures.”

Those measures include permeable pavement, a stone base under the pavement, and paving blocks along side with gaps to allow infiltration. “An overflow mechanism was also constructed in a ‘belts and suspenders’ approach,” Hegarty laughed. The project included construction of a bio-swale with plants and soils to retain water that may escape the pervious pavement.

Partial funding of the total $950,000 cost of construction came from the EPA Great Lakes Restoration Initiative ($380,000.) Whitehall utility funds contributed $300,000; the City’s Tax Increment Finance Authority (TIFA) raised $390,000; and the Alcoa Foundation gave $40,000 toward the project.

In another case study, Hegarty described efforts by the City of Grand Rapids to transform its busy Plainfield Avenue. Construction included ‘green’ traffic islands, bio-retention, filtration, overflow, traffic calming measures, and attention to ‘place-making.’

The project received a ton of press, it’s been an educational opportunity for the City and businesses. Funding for the $298,887 total project cost included more than $152,000 in private contributions. “People were writing $20 checks, businesses donated $2,000 or more.” The City contributed $30,000 and received an enhancement grant from MDOT for $146,667. “Local businesses recognized that the City probably couldn’t afford maintenance; they set aside $30,000 to maintain the green measures.

Other funding sources, according to Hegarty, include SWQIF (the MDEQ Loan program), SAW, and Foundations for environmental groups. Many of these have a narrow focus and the funding pool is shallow. “To get serious money, you will have to borrow and build, and show a plan to repay.”
Recently-retired Washtenaw County Water Resources Commissioner Janis Bobrin received the Association’s highest honor at the 2013 Summer Conference. Janis was named a “Life Member” by her devoted colleagues and friends within the Michigan Association of County Drain Commissioners. Bobrin held the position of MACDC President from 2003-2004, having served on the Board as Southeast District Chair before and after her tenure as President. Her leadership term emphasized “Open communication, inclusiveness, and respect for differing positions and priorities that reflect Michigan’s physical and economic diversity. I continue to believe that Drain Commissioners are uniquely suited to bring communities together to address water quality issues that do not recognize municipal boundaries. At the same time, it is paramount that we continue to provide the drainage and storm water management services that are mandated by the Drain Code and upon which our constituents depend.”

Her tireless commitment to the Association included several years as Education Committee Chair. Janis guided the development of training programs for newly-elected Drain Commissioners and helped to establish an online “Virtual Watershed Management” course for Drain Commissioners and others in storm water management professions.

As Washtenaw County’s Water Resources Commissioner (and Drain Commissioner) for 24 years, Bobrin introduced sustainable approaches to storm water management and public education efforts to promote water stewardship. She was re-elected five times.

Speaking to those assembled to honor her as the recipient of the Ecology Center’s Herbert L. Munzel Award for Environmental Activism in 2012, Bobrin said “No one does this kind of work alone — watershed planning and implementation, stream restoration, changing ordinances and legislation, getting ballot initiatives passed to preserve open space and natural areas — all this work takes a committed community. And that’s what I have had the honor to be a part of. If I’ve been successful, it’s because of the community in which I work.”

BOBRIN NAMED LIFE MEMBER

MACDC President Doug Enos, Past-President Brian Jonckheere, and current Washtenaw County Water Resources Commissioner Evan Pratt present the Life Member award to Janis Bobrin.

A lighter moment, as Janis’ successor, Evan Pratt, pokes fun at the number of times he’s heard “You have big shoes to fill.” Left to right: Brian Jonckheere (Livingston County), MACDC President Doug Enos (Midland County), Janis Bobrin, and Evan Pratt (Washtenaw County.)
Michigan Association of County Drain Commissioners
2014 Awards Program • Official Entry Form

Applications must be received by 5:00 p.m., November 1, 2013

Information supplied on this form will be used to print awards and/or certificates. Please type or print the project name and the names of firms EXACTLY as they should appear on the award.

Award Winners must supply project abstract and photos electronically so that they can be posted on the MACDC website (www.macdc.net.)

Note: Engineers, Contractors, Suppliers, or Consultants must be MACDC Members or Associate Members to be listed on the award.

Project Name:
________________________________________________________
(please do not exceed 45 characters)

Submitted by:
________________________________________________________
Applicant’s Name
________________________________________________________
Street Address
________________________________________________________
City/State/Zip
________________________________________________________
Telephone________________________________________________
Fax________________________________________________________
E-mail_____________________________________________________

Engineers(s) (if any)
________________________________________________________
________________________________________________________
Contractor(s) (if any)
________________________________________________________
________________________________________________________
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Drain Commissioner’s Approval
I approve this submission to MACDC’s 2014 Awards Program. The project was completed under my authority or through the authority of a Board of which I am a member. To my knowledge, this entry meets all program requirements.

Name____________________________________________________
Office____________________________________________________
Signature__________________________________________________

Please submit a separate application for each entry. The $50 entry fee must accompany each application. DOWNLOAD application and Rules from macdc.net:

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BS & A Software
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Contech Engineered Solutions, LLC
CSI Geoturf
EJ
ENTEL, Inc.
ETNA Supply Company
Hach Hydromet
Hanes Geo Components
Hydro International
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Kerkstra Precast, Inc.
Lanzo Trenchless Technologies
Mersino Dewatering, Inc
Michigan Pipe & Valve
Michigan Wildflower Farm
Native Connections
Nativescape LLC
Northern Concrete Pipe, Inc.
Pave Drain, LLC
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NORTHERN DISTRICT

The Northern District of Michigan Drain Commissioners is holding a joint meeting with colleagues from the Northeast District on October 1st, 2013 in Saginaw. The morning session will consist of statutory changes in part 301-303, Exemptions for Established Drains, and General Permits Category Timelines and Reporting Requirements. The afternoon session will discuss Bank-full Width Calculations, Culvert and Bridge General Permit Categories Drain Re-Alignment Category and Vanes Category. We will finish the day learning about Requirements Regarding Endangered and Threatened Species Implications. Special thanks to our host Spicer group!

PROJECTS AROUND THE NORTHERN DISTRICT:

Wexford

Mike Solomon, Wexford County Drain Commissioner, did a rehabilitation project on the Clam River Dam that controls the flow from Lakes Cadillac and Mitchell. The dam was constructed in 1968 and has not had any significant maintenance done since that time. The dam is a two gate system that is used to control the lake levels as established by the Circuit Court.

The project consisted of removing deteriorating concrete, replacing and moving the fencing off of the wing walls, adding an additional control section to aid with low flow conditions and landscaping the area. Next year we will seal more of the concrete sections, provide protective covers for the electrical components and replace all of the seals around both gates. The cost of the project is being split equally between Wexford County and the City of Cadillac.

Presque Isle


Right angle turns were removed and the roadbed elevated to reduce erosion. Reducing sediment loading in the Silver Creek has improved fish habitat and flow regime.

The Huron Pines Resource and Conservation Development Council was the lead agency to implement the DEQ approved watershed management plan. Working in conjunction with the “Commission” and the County Drain Office they adopted the “Silver Creek Super Project”. This project addressed 10 sites on Silver Creek as recommended by the “Habitat Committee” to replace culverts and bridges primarily to accommodate fish passage and improve the flow regime of the stream and reduce water temperature.

Also there were several erosion control issues with some drain outfalls and stream banks that were addressed along with some invasive species control measures. The Silver Creek is a primary trout nursery stream for the Ocqueoc River.

The “Silver Creek Super Project” is now completed with a total cost of approximately $447,000.

The County Road Commission was an important willing partner with these habitat restoration/improvement projects that involved the road-stream crossings.

Lake Emma Dam Repair project nearing completion
Also in Presque Isle County, the Lake Emma Special Assessment District has been legally established and a 20-year assessment roll has been adopted. Temporary emergency repairs to the control structure were completed and approved by the DEQ Dam Safety Division until such time as a future inspection requires completion of the final approved repair.

**DISTRICT MEETINGS**

Fall 2013 District Meetings will discuss regulatory changes to Parts 301 and 303 (Inland Lakes and Streams, Wetlands), with focus on MDEQ’s newly-proposed General Permit Categories. These changes, resulting from the EPA audit of Michigan’s permitting program, will most certainly affect operations at Drain Commissioners’ and Waters Resources Commissioners’ offices.

**Northern and Northeast District Joint Meeting**
October 1, 2013
Spicer Group, Saginaw Office
230 S. Washington Avenue, Saginaw

**Northwest and Southwest District Joint Meeting**
October 7, 2013
Ottawa County Fillmore Complex, Main Conference Room
1220 Fillmore St., West Olive

**Southeast District Meeting**
October 9, 2013
Genoa Charter Township Hall
2911 Dorr Road, Brighton
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PREIN&NEWHOF ELECTS NEW OFFICERS

Prein&Newhof is pleased to announce the promotion of five employees, appointed as officers of the company by its Board of Directors.

James Cook, P.E., Chairman
Thomas J. Newhof, President and Treasurer
Mark Prein, P.E., Vice President
Jason Washler, P.E., Vice President
Christopher Cruickshank, P.E., Secretary

James Cook, P.E. joined Prein&Newhof in 1977. He has worked on many of the firm’s milestone projects and established Prein&Newhof’s airport engineering service area. Cook holds a Bachelor of Science degree in Civil Engineering from the University of Michigan and a Bachelor of Science degree in Mathematics & Physics from Albion College.

Christopher Cruickshank, P.E. joined Prein&Newhof in 2006 with more than 20 years of experience in geotechnical engineering, construction materials evaluation, structural rehabilitation, and environmental engineering. Chris serves as Prein&Newhof’s Technical Services Team Leader and Environmental and Geotechnical Departments Manager. Cruickshank holds a Master of Science degree in Civil Engineering from the University of Detroit, and a Bachelor of Science degree in Civil Engineering from Michigan Technological University.

Mark Prein, P.E. joined Prein&Newhof in 1994. He is a Team Leader and serves as Project Manager on wastewater and water system projects. Prein holds a Master of Science degree in Engineering from Northwestern University, and a Bachelor of Science degree in Civil Engineering from the University of Notre Dame.

Thomas J. Newhof joined Prein&Newhof in 2008 as Business Manager, after working for 20 years in the banking industry. He has also served as Prein&Newhof’s Corporate Treasurer since 2010. Newhof holds a Masters in Business Administration (MBA) from Michigan State University and a Bachelor of Science degree in Accounting from Calvin College.

Jason Washler, P.E. joined Prein&Newhof in 1996. He is a Team Leader and serves as Project Manager for municipal infrastructure projects. Washler holds a Bachelor of Science degree in Civil Engineering from Calvin College.

TIA KLEIN REJOINS HUBBELL, ROTH & CLARK, INC. AS PROJECT SERVICES MANAGER

Hubbell, Roth & Clark, Inc. (HRC) welcomes Tia Klein, P.E., as she rejoins the firm as Project Services Manager after several years with the Michigan Department of Transportation (MDOT) Detroit Transportation Service Center. Ms. Klein was Senior Contracts and Projects Administration Engineer for MDOT, where she was responsible for construction and design project management, consultant contracts management and local agency programs management. During her MDOT tenure, Ms. Klein was resident engineer for a $74-million reconstruction project on M-39 and the $17-million Davison Freeway reconstruction project in the City of Detroit.

In her role as Project Services Manager, Ms. Klein will work closely with HRC’s civil design, construction and transportation departments. She will also provide technical expertise for complex MDOT projects, training and educational opportunities for HRC staff, and further develop client relationships. Ms. Klein’s transportation background will further strengthen...
HRC’s expertise and presence in providing comprehensive transportation services to MDOT and municipal clients.

**ACEC ANNOUNCES OFFICERS**

The American Council of Engineering Companies of Michigan (ACEC/M) announced that John Hiltz, PE, of OHM Advisors (Livonia) will serve as its 2013-2014 President. John is a registered professional engineer and president of Orchard, Hiltz & McCliment, Inc. (OHM Advisors), which recently celebrated its 50th year. A graduate of the University of Michigan and a principal with OHM since 1992, Mr. Hiltz applies more than 30 years of experience in leadership and management to direct corporate administration, marketing and operations. ACEC/M Officers for 2013-2014 are:

- President: John Hiltz, PE, OHM Advisors, Livonia
- President-Elect: Amy Trahey, PE - Great Lakes Engineering Group, LLC, Lansing
- Treasurer: Michael Cooper, PE, Harley Ellis Devereaux, Southfield
- National Director: Wally Alix, PE, Hubbell, Roth & Clark, Inc., Bloomfield Hills
- Past-President: Keith Swaffar, PE - NTH Consultants, LTD, Detroit

**AEW CELEBRATES EMPLOYEE ACCOMPLISHMENTS**

Anderson, Eckstein, and Westrick, Inc. (AEW), a leading civil engineering, surveying and architectural firm in southeast Michigan, celebrates the professional accomplishments of team members Cory Shorkey and Michael Vigneron. Cory Shorkey met all requirements to achieve licensure and Professional Engineer (PE) status. “Being a professional engineer is rewarding for the individual and for the communities he or she assists,” said AEW Chief Executive Officer Roy Rose, PE.

Michael Vigneron, Professional Engineer, has effectively earned certification as a Professional Traffic Operations Engineer (PTOE). The Transportation Professional Certification Board, Inc., the board that oversees the certification process, describes the PTOE certification as “a powerful demonstration of requisite knowledge, skill and ability in the specialized application of traffic operations engineering. “With more than 275,000 licensed Professional Engineers throughout the nation, of which only approximately 2,700 are PTOE certified, we are excited for Mike, and pleased to have him on our team,” noted CEO Rose.

**LAN ANNOUNCES ADDITIONS TO MICHIGAN TEAM**

Samir Matta, P.E., has joined Lockwood, Andrews & Newnam, Inc. (LAN) as Senior Project Manager. Samir will provide leadership, business development and technical support in the water resources, water supply and wastewater projects in the Midwest region and companywide. Samir has served as project engineer and project manager for numerous design and construction projects in Michigan, both as a consultant and as a public employee. He has managed many Federal, State, County and Local projects for the DMVA, USPFO, Corps of Engineers, DTMB, County Drain Commissioners and various local communities. He also has extensive experience in the design and construction management of various projects that include watershed management, LID design, drainage improvements, combined sewer overflow (CSO), sewer rehabilitation, roads and streetscape projects, water distribution and treatment, environmental cleanup and UST projects. “Samir Matta brings a wealth of experience and expertise in project administration, construction project management, business development and preparation of bid documents, contracts, proposals and technical reports to LAN,” said Warren Green, PE, Team Leader of LAN’s Midwest Region. Samir earned his B.S. in Civil Engineering from Wayne State University in 1987 and his M.S. in Environmental Engineering.

**Image**

- Shorkey
- Vigneron
Steven Luoma, PE, LEED® AP, joins LAN as senior project engineer for the Midwest region. Steve is a graduate of the University of Michigan and has over 15 years of diverse engineering design and management experience. His civil engineering background includes work in utility infrastructure, airfield pavement, permitting, cost estimating and general site development for a variety of clients. “Steven Luoma brings the full complement of technical expertise, extensive experience in delivering planning and design projects, and an understanding of clients and business development,” Green said.

Gains Spohn and Lucas Wright have joined ASTI’s Western Great Lakes office in Grand Rapids. Gains Spohn has experience in Phase I and II assessments, asbestos abatement projects and is a graduate of Grand Valley State University. Lucas Wright has a background as a hydrogeologist and drilling assistant. His degree is from Calvin College. Gains and Lucas both reside in the Grand Rapids area.
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MTA ANNUAL EDUCATIONAL CONFERENCE & EXPO
Michigan Townships Association
Grand Traverse Resort, Traverse City

FEBRUARY 12-14, 2014
MACDC ANNUAL WINTER CONFERENCE
Grand Traverse Resort, Acme

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MACDC ANNUAL SUMMER CONFERENCE
Crystal Mountain, Thompsonville

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