From the Director

What the Civil Engineering Section does in FDC
Alfred Uzokwe, P.E.

More than seven years ago, I wrote a running commentary about the various sections we have in the Bureau of Facility Design and Construction and what they do. I did that in response to inquiries about the responsibilities of the various sections that make up the bureau. After seven years, I think that those commentaries bear recapping again. In this issue of the newsletter, I will be revisiting the Civil Engineering Section.

This section is responsible for putting together engineering drawings and technical specifications or overseeing consultants that design rehabilitation projects for the dams. DCNR has over 139 dams of various sizes and classifications. Of this number, 46 are classified as high hazard. High hazard dams are dams that if they fail or are breached, will affect buildings and lives along their inundation paths. It is therefore necessary that at any given time, that we keep very close eyes on all our dams, but more especially those classified as high hazard.

The high hazard dams are required to be inspected every year and reports prepared by a professional engineer. Dam reports include the most current state/condition of the dams and recommendations for maintenance and repair. (cont. on page 2)
(Continued from page 1)

The deficiencies unearthed become the basis for developing remediation schemes for proactive rehabilitation and prevention of any untoward occurrence that could jeopardize the condition of the dam.

Deficiencies fall into two broad categories - structural deficiencies and functional deficiencies and in between. Structural deficiencies refer to cases where there are unacceptable cracks or movement in concrete elements of the dam like spillways, including the walls and slabs. If left to continue without remediation, the cracks and concrete could get worse. Example of functional deficiency is where a spillway is unable to pass a minimum amount of flood water. Remediation would include increasing the spillway size to an acceptable capacity or designing the dam for overtopping protection using roller compacted concrete so that in the event of an unusual flood, dam breach will be averted.

Of course, there are issues like seepage or structural leakage. A dam’s function is impoundment and if it leaks, this function is compromised and could lead to breach. During inspection, the dam inspector notes all these deficiencies in a dam inspection report which are then sent to DEP Dam Safety for review.

(Photographs of ongoing Civil Engineering Projects are continued on Page 3)
Director’s Notes (continued)
Alfred Uzokwe, P.E.

(Continued from page 2)

Hopewell Dam, Newly rebuilt control structure showing access grating and sluice gate operator for new sluice gate

Chapman Dam, spillway renovations and placement of roller compacted concrete with concrete cutoff wall to the right of the spillway. The below photo shows placement of RCC Overtopping Protection along the downstream left dam embankment.

Newly constructed concrete spillway and outlet works with sluice gates, Pecks Pond Dam
DCNR’s Largest Solar Array Currently Under Design

John M. Dubaich, P.E.

A large-scale ground mount solar array project is currently under design for the Heliport location at Ohiopyle State Park. The Heliport was previously owned by the Bureau of Forestry where the license was issued by PennDOT’s Bureau of Aviation. The license was originally issued in 1982 with three (3) approved aviation approaches.

In March 2019, the Bureau of Forestry decided to abandon the site and not reissue the Heliport license. Provisions for building demolition were also in the works. Since it was determined that this site was viable for solar, the electric utility account and ownership of the Heliport was transferred to the Bureau of State Parks in December 2020.

The array will be the largest DCNR owned array rated at 820kW DC and will provide enough solar energy production to “net-zero” the entire park which consists of forty-one (41) West Penn Power electric accounts. Currently, the largest DCNR array rated at 733kW DC is under construction at the maintenance complex on the grounds of Prince Gallitzin State Park.

The construction cost estimate for this project is approximately $2.5 million dollars and will require an electric utility service upgrade from a single phase to a 3-phase power distribution system.

The Bureau of State Parks has decided to keep the Heliport Building erect with electric service disconnected until after the solar array system is constructed, at which time provisions for building demolition can occur.

This solar array will generate 1,265,390kWh per year (approximately 115 homes) of renewable energy with annual electricity savings of up to $150,000, reducing up to 1,000 tons of CO2 emissions per year (approximately 200 cars), and saving up to 22,650 trees.
Update - Rubber Bag Replacement
Shikellamy State Park
Edward Raptosh, P.E.

The department is gearing up to once again replace the problematic Rubber Bag #6 at Shikellamy State Park. Late summer and the fall of 2021 saw the Susquehanna River at above normal high-water levels which did not allow for safe conditions to replace the bag. While waiting for river levels to recede, park staff and engineers from the Bureau of Facility Design and Construction noticed that some of the anchors used to fasten the rubber dam bladder to the dam’s concrete foundation had failed by either popping out of the concrete or loosening.

Since river levels remained too high to allow the bag to be replaced in the latter months of 2021, the plan was shifted to replace the bag as early as possible in 2022, assuming river levels cooperate. It was also decided to replace the anchor bolts in the same contract as the construction of a rock causeway out into the river to serve both as access to the site to deliver and install the bag and to serve as a cofferdam. Engineers from the bureau quickly designed a project and prepared bid documents for the necessary work to replace the bag. The project has since been bid and awarded. On April 19, 2022, an initial job conference was held onsite with the contractor. Currently, the contractor is submitting their catalog cuts for materials for the department’s review. River conditions will be closely monitored so that this work can finally be completed, and the popular Lake Augusta brought back to normal pool for the remainder of the recreational season.

Finally, contingent upon successful installation of the rubber bag in 2022, waiting on deck is the construction of the nature-like fishway at the west abutment of the dam. The Department of General Services is currently completing final plan review, preparing bid documents, and will be advertising the contract for construction in the near future. But that’s another story for a future issue of the newsletter. First things first—get Rubber Bag #6 installed.

Susquehanna River at Shikellamy State Park
April is World Landscape Architecture Month! Landscape Architects often play a crucial role in many of DCNR’s infrastructure projects, through the design of sustainable infrastructure, management of stormwater runoff, native plantings, and careful planning and design.

In this article, we as a bureau are taking time to evaluate the closely aligned visions of both the DCNR and American Society of Landscape Architects (ASLA).

DCNR and the ASLA share similar visions for sustainable development and climate change adaptation. We can see the similarities among DCNR’s State Comprehensive Outdoor Recreation Plan – “Recreation for All,” DCNR’s equity and inclusion policies, and the recently completed Parks’ planning effort “Penn’s Parks for All.” In addition, ASLA’s vision statement of “Healthy, beautiful and resilient places for all” only serves to provide an undeniable highlight to this association.

Landscape Architects are currently on the frontlines of proactive solutions to climate change. The design of climate and stormwater solutions are rooted in utilizing natural systems. Landscape Architects are pulling from conservation principles that have long term sustainability. Frederick Law Olmstead, the father of modern Landscape Architecture, advanced the architectural design concept which provides a space for the mental and physical well-being of humans to be more connected to the outdoors and the environment. These guiding principles can be observed in his design and execution of Central Park in New York City in the mid-19th century. The Coronavirus Pandemic of the last 2+ years has also emphasized the importance and necessity of outdoor spaces such as State Parks for our health and wellbeing.

Within DCNR’s Bureau of Facility Design and Construction, Landscape Architects consistently are involved in planning, design, and project management, providing a highly valuable component to the diverse team of surveyors, engineers and architects within the bureau. Historically, Landscape Architects also played a significant role in the creation and establishment of Pennsylvania’s State Parks, beloved by many. As we continue ramping up efforts to improve, increase, and strengthen our infrastructure, Landscape Architects will also continue to ask the important questions. Which solution is best? What are the alternatives? What are the larger, broader implications?

Please take time this month to learn about the Landscape Architecture profession and its many contributions within and outside the department.
Replace Overhead Electric Lines at Group Camp No. 1, Blue Knob State Park
John M. Dubaich, P.E.

An electrical service and distribution overhaul was recently completed at Group Camp No. 1 on the grounds of Blue Knob State Park.

The project was successful in eliminating the 3-phase electric service (see 3-Phase Electric Service Before photo below) of Valley Rural Electric Cooperative consisting of an elevated platform with three (3) single phase transformers, and replacing it with a single phase electric service consisting of only one (1) pole mounted transformer (see 3-Phase Electric Service After photo below).

The unappealing, low elevation, overhead electric distribution lines throughout the camp were replaced with underground ductbanks utilizing direct burial PVC conduit (see Overhead to Underground Electric photo on page 5). Underground electric utilities will provide more reliability and longevity, in addition to improved aesthetics, compared to overhead lines.

Group Camp No. 1 is a 100-person capacity camp available for overnight use to organized groups from June through August consisting of two lodges, two cabins, swimming pool, shower house, dining hall with kitchen, and camp store. Reservations are based on various criteria such as previous long-term use, priority for youth groups, length of stay, and number of people.

In 1935, the National Park Service opened the Blue Knob National Recreation Demonstration Area. With the support and cooperation of PA Governor Gifford Pinchot, the park was built by the men of the Works Projects Administration (WPA) and the young men of the Civilian Conservation Corps (CCC). The WPA and CCC were established by President Franklin D. Roosevelt during the Great Depression to provide work for the unemployed. (Cont. on page 8)
Replace Overhead Electric Lines at Group Camp No. 1
Blue Knob State Park (Cont.)
John M. Dubaich, P.E.

Continued from page 7

Ownership of the park was transferred to the Commonwealth of Pennsylvania on September 26, 1945, and Blue Knob State Park was officially opened. At 3,146 feet above sea level, Blue Knob is the second highest mountain in Pennsylvania providing spectacular views.

Overhead to Underground Electric

<table>
<thead>
<tr>
<th>Project: Replace Overhead Electric Lines at Group Camp No. 1 (Blue Knob State Park)</th>
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<tbody>
<tr>
<td>Project Designer: John Dubaich</td>
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<tr>
<td>Construction Manager: Jim Sowerbrower</td>
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<tr>
<td>Construction Inspector: Miles Filson</td>
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<tr>
<td>General Contractor: TP Electric and Power, LLC</td>
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<td>Contract Amount: $146,205</td>
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Bridge No. 07-0005 carries Treaster Valley Road over Treaster Run, in Armagh Township, Mifflin County. Built in 1935, the existing 26 foot-long rolled steel I beam structure was considered structurally deficient due to extensive section loss to the steel girders caused by significant corrosion. The railings consisted of 6’ high timber curbs. This railing type was commonly used back in the 30’s meant to delineate the bridge deck for hikers who cross the bridge. As DCNR replaces this type of bridge, a current safety guidrail system will be implemented to contain errant vehicles. DCNR sought a new bridge to address the structurally deficient steel girders and the sub-standard railings with adequate structural capacity to carry legal loads.

DCNR staff provided the design of the new bridge utilizing PennDOT’s BRADD (Bridge Automated Drafting and Design) software application to expedite the design process. BRADD was developed specifically for single span bridges so it is a useful design tool for most of DCNR’s single-span bridges. The designer selected to use prestressed concreted planks beams on reinforced concrete abutments founded on soil. Concrete prestressed beams were used to achieve long term durability and low maintenance. The bridge construction started in June 2021 and was completed in December 2021.

The new bridge was constructed within the footprint of the old bridge to maintain both vertical and horizontal alignment. The new span is 28’-10” long and 18’ wide to accommodate two 9-foot lanes (no shoulders).

Additionally, the bridge design improved the hydraulic capacity of the stream, meeting all necessary requirements, and facing minimal hurdles. DCNR standard vertical concrete barrier with architecture surface on both faces was incorporated and a 5-inch thick concrete deck was used as the riding surface. After the deck slab and parapet placements, the entire riding surface was covered with a spray-applied protective coating.

Architectural surface treatment using form liners to create a textured concrete surface to resemble cut stones was included on the barriers, abutments and wingwalls to enhance the bridge appearance while blending in well with the forest surroundings.

Treaster Run is a stocked trout stream and a listed wild trout water. Therefore, an in-stream work restriction was in place from March 1st to June 15th (stocked stream) and from October 1st to December 31st (wild trout water). The contractor had a little more than 3 months window to work in the stream to construct the abutments and manage to complete the work within the time restriction. Through diligent efforts of the contractor the project was completed with minor delay and on budget. It is anticipated that forest travelers will appreciate the new bridge for years to come.
Ricketts Glen State Park Adds Campsites
Benjamin D. Cassidy, PLA

Borne as a goal from the 2014-2019 State Comprehensive Outdoor Recreation Plan, the bureau was tasked with expanding full-service campsite opportunities to multiple Parks throughout the state. As one of those project recipients and after much anticipation, Ricketts Glen State Park now has new and upgraded campsites in the Small Campground Loop, expanding the camping opportunities to this much beloved Park. The final project consisted of converting six existing sites to Electric Only hook-up and five existing sites to Full Service Campsites (FSC) as well as creating new vehicular circulation adding seventeen new FSCs and one new Electric Only campsite.

The Landscape Design Section has been overseeing a majority of these FSC projects and, in this case, drove the project by providing in-house Landscape Architectural services as well as project coordination. The site offered many challenges, but the resulting loop kept the character of the surrounding Park amenities by accommodating boulder fields, elevation changes and existing forested areas. Additional FDC staff also completed environmental permitting in-house though stormwater treatment areas. Larson Design Group worked in their capacity as consultant and provided water, sanitary and electric design services to support the effort.

Project: Add Full Service Campsites—Small Loop Campground
Project Coordinator: Benjamin D. Cassidy, PLA
Designers: Craig Fetterhoff P.E., Larson Design Group
Construction Manager: Victor Li, P.E.
Construction Inspector: Jason Horst, Tim Bucci
General Contractor: Rutledge Excavating, Inc.
Electrical Contractor: Vermilya Construction
Construction Cost: $981,659.54
DCNR Installing EV Charging Stations in Seven State Parks
John Meyers

This project is a part of the DCNR initiative to install Electric Vehicle charging stations at parks throughout the Commonwealth to promote the use of electric vehicles by the public.

Recently, EV charging stations have been installed at seven state parks - Delaware Canal, Nockamixon, Ridley Creek, Marsh Creek, Nolde Forest, Fort Washington and Memorial Lake – all of which are located in six different counties in eastern Pennsylvania.

The charging stations are being constructed within popular areas of these parks. EV charging stations are primarily located within existing parking areas, and sited close to an existing source of electric power. Each charging station has two vehicle chargers. Additionally, two ADA compliant parking spaces are reserved at each station for the exclusive use of electric vehicles.

Since the start date of construction on October 11, 2021, the chargers have been installed at all seven parks and they are all operational except at Nolde Forest, where coordination with the local electric power company is on-going to schedule the connection to electric power.

With the return of warm weather, the finishing touches can now be tackled. The installation of pavement paint striping, signage, and curb stops are currently ongoing, and are anticipated to be completed before May 13, 2022.

Construction of EV Charging Station
Memorial Lake State Park

Recently Constructed EV Charging Station at Nockamixon State Park

<table>
<thead>
<tr>
<th>Project:</th>
<th>Install EV Charging Stations at Seven State Parks</th>
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<tbody>
<tr>
<td>Project Coordinator:</td>
<td>Bilal Baqai, P.E.</td>
</tr>
<tr>
<td>Designer:</td>
<td>Kathleen Rhoten, P.E.</td>
</tr>
<tr>
<td>Estimated Construction Cost:</td>
<td>$259,000</td>
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Water Well Replacement at Sinnemahoning State Park’s Wildlife Center
Jim O'Shell, EIT

The Wildlife Center located at Sinnemahoning State Park, in the “heart” of the Pennsylvania Wilds region, is among some of the finest examples of the Bureau of Facility Design and Construction’s commitment to providing visitors with a premier destination for education and recreational experiences. The LEED-certified green building provides state of the art exhibits designed for park visitors to explore and learn about the history and ecology of the First Fork Valley.

Constructed in 2006, the well which supplies water to the Wildlife Center has been plagued with less than desirable water quality parameters to include elevated levels of turbidity, chloride, manganese, and sodium. Fortunately, this well is supplied by three individual fracture zones, any of which has the capacity to supply the needs of the Wildlife Center on its own. Due to local phenomena and information known about the geological formations of the area, it was suspected that the deepest fracture zone may be the primary contributor to the undesirable raw water quality.

In an attempt to confirm these suspicions, a straddle packer test was performed on the three fracture zones. Essentially this involves the use of a piece of equipment that can isolate a portion of a well by inflation of air bladders above and below the area to be tested. Water samples were then collected from each of the isolated fracture zones. It was found that although neither of the three fracture zones supplied water totally free of any contaminants, the deepest fracture zone did in fact contribute the highest concentrations.

The decision was made to seal the bottom 27 feet of the 127 foot well with a White Cement/Bentonite Clay mixture. Following work on the well, all the treatment equipment inside of the building was replaced in-kind, resulting in an exceptional water quality, exceeding all requirements for primary and secondary maximum contaminant levels.
Lumberville Aqueduct over Paunacussing Creek

John Meyers

The Aqueduct that carries the Delaware Canal over Paunacussing Creek was severely damaged by the storm named Ida in September of 2021. Structural inspection immediately after the storm determined that the structure was at risk of collapse, which would be a danger to the public and block the creek. Therefore, the decision was made for emergency removal of the damaged aqueduct.

The storm named Ida occurred on September 1, 2021. Acting under emergency procedures, the contract was advertised and bids were received on October 12, 2021. The verbal Notice to Proceed was given to the contractor on October 14, 2021 and the work was completed on January 6, 2022.

Design of replacement of the aqueduct was already well advanced before the storm damaged the structure, so the permits already obtained from PennDOT and other agencies to allow construction of the new aqueduct were quickly modified and re-approved for use on the emergency demolition.

The extent of the storm damage has prompted complete re-evaluation of the design of the replacement aqueduct. While raising the structure to gain more clearance above the creek is not possible, the replacement aqueduct is now being designed as a single span structure rather than mimicking the existing two span structure. Elimination of the pier in the creek will increase the waterway opening under the aqueduct.

Paunacussing Creek upstream of the Lumberville Aqueduct.

Removal of the Lumberville Aqueduct.

Project: Emergency Stabilization, Bridge No. 6450-311 3
Project Coordinator: Bilal Baqai, P.E.
Inspector: John Myers
Estimated Construction Cost: $299,000
Reuse of Post-Consumer Plastics for Ridley Creek State Park Paving Project

Bilal Baqai, P.E.

Climate change and its effects are forcing engineers to find creative, sustainable solutions to our infrastructure needs. To increase sustainability in the park, DCNR engaged in a 1.5 mile pilot project to encourage a unique design concept, which involves the reuse of post-consumer plastic materials.

In the fall of 2021, DCNR, in partnership with PennDOT, DEP, and DGS, completed an innovative project to re-pave South Sandy Flash Drive within Ridley Creek State Park. The project introduced post-consumer recycled plastic materials into the asphalt mixture to improve the performance of the roadway surface and extend the useful life of the asphalt.

Approximately one (1) mile of the Park’s roadway was paved with a standard asphalt mixture and ½ mile was paved with the experimental mixture. The project will be monitored over a 5-year period, studying the wear and tear of the roadway surface.

Full depth reclamation techniques were used to turn the existing roadway into a new base course. 30 percent recycled asphalt pavement was used in the mix design, and post-consumer recycled plastic was applied to the wearing course.

This project was an opportunity for DCNR to test out a new, environmentally friendly design option, and determine whether this can be replicated in other parks and forestry roads across Pennsylvania. We are proud of the interagency cooperation on this project and look forward to seeing its impact going forward as we seek creative sustainable solutions for future infrastructure efforts.

Full Depth Reclamation for Roadway Rehabilitation

Finished Roadway Surface
Solar Construction Coming Soon at Presque Isle State Park
John Dubaich

A solar parking canopy system under Design-Build Project No. FDC-220-103122 has been recently awarded to Spotts Brothers, Inc. in the amount of $1,613,000 which includes design and geotechnical services, solar construction, and electric utility (Penelec) upgrades from single phase to a 3-phase phase power distribution system.

A considerable number of DCNR solar arrays have been and are currently under construction, or will soon be under construction, by Spotts Brothers including arrays at eight (8) state park locations (Moraine, Gifford Pinchot, Prince Gallitzin, Jacobsburg, Nockamixon, Evansburg, Tyler, and Presque Isle) and two (2) forest district locations (Buchanan and Bald Eagle).

The solar system at Presque Isle will consist of five (5) canopy structures installed at Beach 8 which is also known as Pettinato Beach containing a beach house with changing areas, restrooms, and a food & beverage concession. A rendering of the proposed solar canopy system is depicted below and on the following page.

The overall system rating will be approximately 280kW DC and will provide enough solar energy production to “net-zero” via a virtual net-metering scheme all thirty-three (33) metered Penelec electric accounts on the Peninsula.

TREC is not included in the scheme since it is further than the 2-mile radius rule (straight line) from the Beach 8 meter behind which the solar array system is interconnected and additionally, TREC is separated from the Peninsula via a non-Commonwealth owned parcel. Otherwise, if TREC was located within the state park boundary line of the Peninsula, regardless if it is greater than 2 miles from Beach 8, it could have been included in the virtual net-metering scheme. This caveat in the 2-mile radius ruling has benefitted Prince Gallitzin State Park in which a large-scaled 738kW DC ground mounted system is currently under construction including all the (continued on page 16)
Solar Construction Coming Soon at Presque Isle State Park (continued)
John Dubach

Continued from page 15

electric accounts (even though a considerable amount of the accounts are beyond 2 miles from the solar location) since the entire park boundary line is one large all-encompassing parcel.

Another potential solar parking canopy system can be evaluated at Beach 1 as part of a potential major improvement upgrade project that would expand the existing Beach 1 area to include new parking areas, bath houses, and concession stands. This particular solar parking canopy system would be designed and focused on providing net-zero electric usage for TREC since it would be located within 2 miles from Beach 1 regardless of the non-Commonwealth owned parcel that separates TREC from the Peninsula.

This upcoming solar parking canopy system at Beach 8 will generate 430,250 kWh per year (approximately 40 homes) of renewable energy with annual electricity savings of up to $50,000, reducing up to 350 tons of CO2 emissions per year (approximately 70 cars), and saving up to 8,000 trees.

Plan View of the Beach 8 Solar Canopy

Perspective View of the Solar Canopy
New Equipment Storage Building
Ricketts Glen State Park
Jim Kalp, LEED AP, Architectural Designer II

A 3-Bay Equipment Storage Building was recently completed at Ricketts Glen State Park, Fairmount Township, Luzerne County. The 56-foot by 40-foot, uninsulated building has three bays providing approximately 2,240 square foot of protected storage space for park, vehicles, equipment, and materials, freeing up space in the existing maintenance buildings to perform work tasks and operations more efficiently. Twelve foot high doors and a floor to ceiling height of 14-feet will accommodate a variety of equipment and storage options. LED lighting fixtures and automated control systems provide energy efficiency and minimize maintenance. A long, clear polycarbonate glazing panel on the rear wall introduces a lot of natural light. The exterior finishes consist of prefinished, steel metal roofing and siding and panels for long, maintenance free performance.

The project’s site design incorporated vehicular circulation considerations, storm water management, drainage improvements and utility work. The site designer coordinated building pad preparation and layout with DCNR Park and Regional staff, who performed much of the building pad work to save money on the project.

This behind the scenes type of project helps support park operations in serving the estimated 421,000 visitors the 13,046 acre park welcomes each year. With 22 named waterfalls; the Glens Natural Area (a National Natural Landmark); 26 miles of hiking trails; fishing, boating and swimming at the 245 acre Lake Jean and numerous overnight camping options from campground sites, cottages and modern cabins, Ricketts Glen State Park offers many recreational activities.

Recently Constructed 3 Bay Storage Building

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<tbody>
<tr>
<td>Project Coordinator:</td>
<td>James Kalp, LEED AP</td>
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<tr>
<td>Site Designer:</td>
<td>Benjamin Cassidy, PLA, ASLA</td>
</tr>
<tr>
<td>Architectural Designer:</td>
<td>James Kalp, LEED AP</td>
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<tr>
<td>Electrical Designer:</td>
<td>Kathleen Rhoten, PE</td>
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<td>Construction Manager:</td>
<td>Victor Li, PE</td>
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<td>Construction Inspector:</td>
<td>Tim Bucci</td>
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<tr>
<td>General Contractor:</td>
<td>John Claar Excavating, Inc</td>
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<td>Electrical Contractor:</td>
<td>Mark Whitehead Electrical Contractor, Inc.</td>
</tr>
<tr>
<td>Construction Cost:</td>
<td>$229,479.00</td>
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</table>
Construction Projects in Progress

White Haven Trail Rehab: Placing 2A Stone Over Tensar Geogrid

Mount Pisgah State Park: Construction of Electrical Kiosk for Solar Array

Mount Pisgah State Park: Solar Array at Pump House

Region 2 Office (Moraine State Park): Construction of Solar Canopy

Moraine State Park: Solar Array Construction

Presque Isle State Park: Waterline Construction
Construction Projects in Progress

Presque Isle State Park: Directional Drilling of Sewer Force Main

Hickory Run State Park: Sand Spring Dam Repairs—Construction of Outlet Structure

Buchanan State Forest: Chaneysville HQ – Install Roofing and Siding.

Black Moshannon State Park: Cabin 20 Ski Lodge—Mechanical and Electrical Install

Little Buffalo State Park: Rec Hall Accessibility Rehab—Drywall and Ceiling

Rothrock State Forest: Tea Creek Dam Removal
### Bidding Summary - Jan 2022

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Bid Price</th>
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<tr>
<td>FDC-001-102491.1 Michaux State Forest (Forest District 1) Structure Replacement, Bridge No. 01-0004, Dead Woman Hollow Road Over Dead Woman Hollow Run</td>
<td>$465,183.44</td>
<td>Jay Fulkroad &amp; Sons, Inc.</td>
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<td>FDC-003-102493.1 Tuscarora State Forest (Forest District 3) Structure Replacement, Bridge No. 03-0045, Little Knob Road Over Trib. To Kansas Valley Run</td>
<td>$157,097.09</td>
<td>Jay Fulkroad &amp; Sons, Inc.</td>
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<td>FDC-007-103282.1 Bald Eagle State Forest (Forest District 7) Structure Replacement, Bridge No. 07-0064, Cherry Run Road Over Bear Run</td>
<td>$382,000.00</td>
<td>Wolyniec Construction, Inc.</td>
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<td>FDC-017-101613.1 William Penn State Forest (Forest Dist.17) New Bridge Structure, Bridge No. 17-0001, Unnamed Road at Goat Hill Over UNT to Octoraro Creek</td>
<td>$580,000.00</td>
<td>Loftus Construction</td>
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### Bidding Summary - Feb 2022

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<td>FDC-004-102503.1 Forbes State Forest (Forest District 4) Structure Replacement, Bridge A No. 04-0020 / Bridge B No. 04-0021, Replace Two Culverts – Beam Road</td>
<td>$658,730.00</td>
<td>Straw Construction Company</td>
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<td>FDC-131-10110.1 Shikellamy State Park Repairs to Inflatable Dam</td>
<td>$590,960.00</td>
<td>Glenn O. Hawbaker, Inc.</td>
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<td>FDC-016-103036.1 Tioga State Forest (Forest District 16) Structure Replacement, L. Reese Road Over Rattlesnake Run</td>
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### Bidding Summary - March 2022

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<td>FDC-316-01538.1 Codorus State Park Park Paving – Phase 1</td>
<td>$480,100.00</td>
<td>Kinsley Construction</td>
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<td>FDC-003-103021.1 Tuscarora State Forest (Forest District 3) Structure Replacement, Bridge No. 03-0047, Meadows Road Over Tributary to Laurel Run</td>
<td>$495,980.00</td>
<td>Redrock Construction, Inc.</td>
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<td>FDC-118-103395.1 Poe Valley State Park Rehabilitation of Lower Loop Road</td>
<td>$247,360.00</td>
<td>G &amp; R Charles Excavating</td>
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<td>FDC-228-03236.1 Pymatuning State Park Resurface 2 Miles of Roadway, Phase 3</td>
<td>$1,179,838.00</td>
<td>Shields Asphalt Paving</td>
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<td>FDC-461-101701.1 Washington Crossing Historic Park Paving – Valley of Concentration Circle</td>
<td>$362,488.00</td>
<td>Meco Constructors, Inc.</td>
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<td>FDC-800-10091.1 William Penn State Forest (Forest District 17), Tioga State Forest (Forest District 18), and Loyalsok State Forest (Forest District 20) Construct Woven Wire Deer Fencing</td>
<td>$169,543.00</td>
<td>All</td>
</tr>
<tr>
<td>FDC-010-10090.1 Sproul State Forest (Forest District 10) Construct Woven Wire Deer Fencing</td>
<td>$289,559.65</td>
<td>Bash Contracting, Inc.</td>
</tr>
<tr>
<td>FDC-007-10098.1 Bald Eagle State Forest Sand Mountain Road Paving</td>
<td>$333,093.00</td>
<td>Wolyniec Construction, Inc.</td>
</tr>
</tbody>
</table>

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**January Total Bids/Value:** 4/$1,584,280.53  
**February Total Bids/Value:** 3/$1,674,325.00  
**March Total Bids/Value:** 8/$3,568,056.65  
**Total:** 15/$5,826,662.18

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**Interested in Doing Work for DCNR?**  
For a list of current projects out for bid, visit the Bureau's current bid proposal page at:  
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Bureau Mission:
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Questions – Comments?
We value our reader’s feedback. Send your questions or comments to:

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https://www.dcnr.pa.gov/about/Pages/Facility-Design-and-Construction.aspx

Staff of the Bureau of Facility Design & Construction