

2022 Annual Report

Butler County Engineer's Office



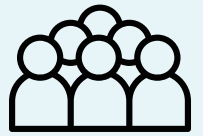
Butler County Engineer's Office

2022 Annual Report

Explore

Have a closer look at our 2022 accomplishments organized by department. For past, current, and future project information, visit our PROJECTS MAP on www.bceo.org.

2022 Review

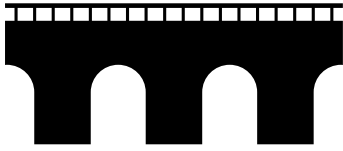


**BUTLER COUNTY
POPULATION**

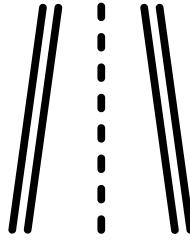
390,357

STATE RANK

7



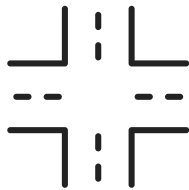
3 Bridge Projects



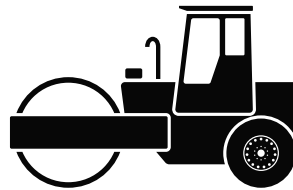
2 Roadway Projects



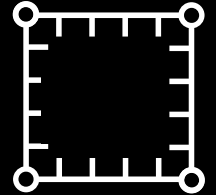
34 Culvert Projects



2 Intersection Projects



44 Miles of Resurfacing



**BUTLER COUNTY
LAND AREA**

467 SQUARE MILES

STATE RANK

35

In addition to daily routine activities and maintenance, our staff was involved with the completion of capital improvement projects, upgrades, and traffic signal maintenance totaling \$28,356,099. (Not including the \$24.5 million S.R. 129 Interchange Modification project which began in 2021 and will be completed in 2023.)

CERTIFIED ROAD MILEAGE BY TOWNSHIP

FAIRFIELD	79.2670
HANOVER	35.6270
LEMON	10.0375
LIBERTY	156.6145
MADISON	52.7675
MILFORD	33.0620
MORGAN	30.9865
OXFORD	26.2185
REILY	34.1200
ROSS	47.5200
ST. CLAIR	33.4055
WEST CHESTER	228.7510
WAYNE	30.5140



**CERTIFIED ROAD MILEAGE
FOR BUTLER COUNTY**

COUNTY ROADS

266.349

TOWNSHIP ROADS

798.891

U.S. AND STATE ROADS

236.20

Butler County Engineer

Gregory J. Wilkens, P.E., P.S.



To the Citizens and Board of County Commissioners of
Butler County, Ohio:

I respectfully present the Butler County Engineer's
2022 Annual Report for your review.

This summary of 2022 activity highlights over \$28 million in capital improvements and maintenance. I am pleased to show you the great variety of our projects around Butler County that increase the safety and longevity of our roads and bridges, encourage and provide access to new economic development, and connect communities through multi-use paths.

Even with soaring inflation in 2022, the Butler County Engineer's Office significantly advanced the county's transportation system by collaborating with our townships and cities, the Ohio Department of Transportation (ODOT), the OKI Regional Council of Governments, and numerous other entities. Planning and identifying these outside funding sources several years before completion is crucial to accomplishing improvements like the Five Points roundabout and the Hamilton Mason Road at Mauds Hughes intersection improvement.

Non-contract projects performed by BCEO crews, known as force account projects, consist of everything from culvert and bridge replacements and deck repairs to general and seasonal maintenance. Per the Ohio Revised Code set in 2003, if the cost estimate for a force account project is over \$30,000 per mile for road maintenance or paving and \$100,000 for structures (bridges or culverts), the project must be competitively bid, and let as a contract to the lowest qualified bidder. Unfortunately, with the construction costs nearly doubling over the last twenty years, BCEO has been restricted to smaller and smaller projects, thus causing us to be less efficient in the use of your tax dollars.

Along with other county engineers, I have been extremely vocal at the state level in unwavering support of raising force account limits to allow the BCEO to serve our citizens more efficiently and provide the best return on their tax dollars. As a result, the newly passed Transportation Budget included raising the Force Account limits by 133 percent! This increase will help us keep pace with construction inflation and allow the contractor to build the intermediate and larger projects while we focus on smaller maintenance-type projects.

As your County Engineer, I am always searching for new and better ways to meet the growing transportation demands of this county. Being fiscally conservative by nature, efficiency is one of my core values when seeking better methods to improve our roadway network.

As always, thank you for your continued trust and encouragement as your County Engineer. Feel free to contact us with your concerns and suggestions for how we can improve our service. Please read on for a review of 2022.

Very truly yours,

Gregory J. Wilkens

Gregory J. Wilkens, P.E., P.S.
Butler County Engineer

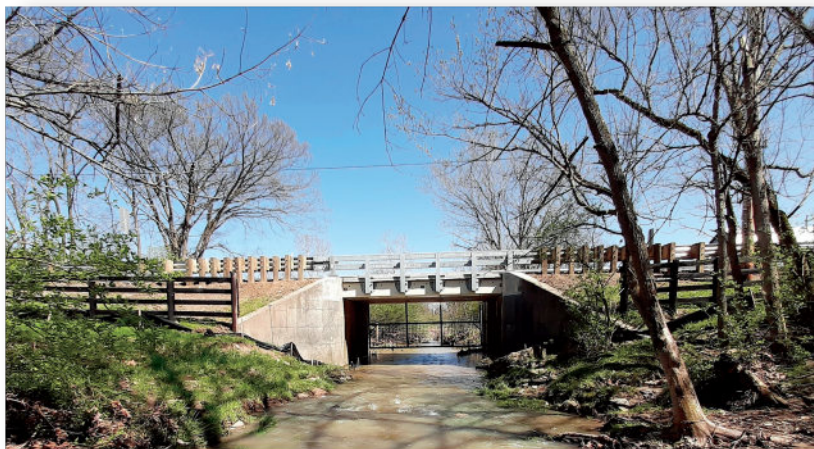
2022 Projects

Bridges

The BCEO inspects and maintains **410** bridges (structures with a clear span of ten feet or greater). There were a total of **3** bridge projects in 2022.



Bonham Road Bridge #1.603
Design-Build Bridge Replacement



Bonham Road Bridge #1.603
N. Weaver Road Bridge #2.685
Multi-bridge Contract
Total Construction Cost: \$1,563,194
Funding: State (OPWC), BCEO

N. Weaver Road Bridge #2.685
Superstructure Replacement



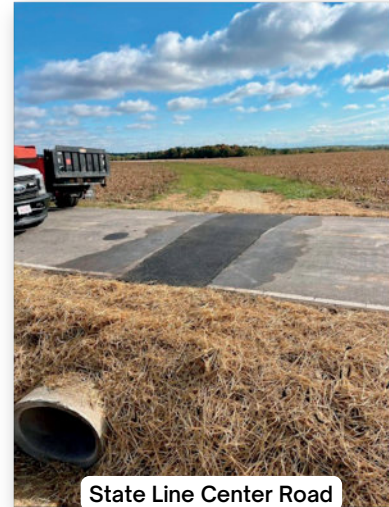
Buckley Road Bridge #3.90
Pier Rehabilitation
Total Construction Cost: \$235,188
Funding: BCEO

Culverts & Drainage

In 2022, there were **35** BCEO Force Account culvert and drainage projects constructed by our Operations Department personnel totaling **\$696,279** and one drainage project by contract.

Total Construction Cost: \$643,008
 Funding: BCEO Force Account

- Beissinger Road #0.168, #0.974
- Chapel Road #5.044, #5.047
- Contreras Road #1.807
- Eaton Road #6.56, #6.82
- Elk Creek Road #3.159, #3.142
- Garner Road #2.053, #2.152
- Hamilton New London Road #5.360, #6.114
- Huston Road #1.106, #1.370, #1.759
- Peoria Reily Road #0.930, #2.094, #2.269
- Race Lane Road #2.370
- Reily Millville Road #0.864, #1.01, #1.35, #1.42, #1.63, #1.68, #4.16
- Riggs Road #1.920
- State Line Center Road #4.887
- Taylor School Road #3.281
- Waynes Trace Road #3.160, #4.380, #4.536



Trenton Franklin Road Drainage

Drainage pipe frontage installation.
 Total Construction Cost: \$26,639.45
 Funding: BCEO Force Account



Tylersville Road at Running Deer Drive Drainage

Drainage pipe frontage installation.
 Total Construction Cost: \$26,632.30
 Funding: BCEO Force Account



Greenlawn Road Drainage - Phase 1 (by contract)

New storm sewer installation and channelization of waterflow.
 Total Construction Cost: \$493,690
 Funding: BCSWD, Fairfield Twp



Intersection Improvements

Five Points Roundabout

Hamilton Mason Rd, Tylersville Rd, Tuley Rd, Grand Blvd, and Hancock Ave.

Installed roundabout at the five point intersection.

Total Construction Cost: \$2,309,564

Funding: Federal (ODOT), BCEO, City of Hamilton



Hamilton Mason Road at Mauds Hughes Road

Hamilton Mason Corridor Improvement - Phase 2

Intersection Improvement with multi-phased signals and left-turn lanes, realignment, and a new storm sewer.

Total Construction Cost: \$2,070,626

Funding: Federal, BCWS, BCEO



Roadway Improvements

Butler Warren Road (Bethany Rd to Princeton Rd)
Project in conjunction with the Warren County Engineer's Office.

Widened approximately 3/4 miles of road to 3 lanes with the addition of a center turn lane; made sight distance adjustments and drainage improvements.

Total Construction Cost: \$1,672,207

Funding: State (OPWC), BCEO, WCEO, Liberty Twp



Courtesy of KT Holden Construction

Veterans Boulevard Extension

Connected Cox Rd to the existing Veterans Blvd in the Freedom Pointe development; installed 2 roundabouts. Project complements the S.R. 129 Interchange Modification project.

Total Construction Cost: \$4,344,404

Funding: Butler County



Paving

The Butler County Engineer's Office is responsible for **266** miles (centerline miles) of roadway and has a 17 to 18 year paving program in place. This system enables roads to be resurfaced regularly and maintained routinely in a more cost-effective manner. There were over **44** miles of county and township roads resurfaced in 2022.

Total Construction Cost: \$9,422,215

Total Construction Cost (Asphalt): \$8,973,134

Funding: BCEO, Townships

County Roads (19.172 total miles)

- Beissinger Road (S.R. 177 to Hamilton Corp Line/
Hamilton Corp Line to Eaton Rd)
- Boyle Road (S.R. 129 to S.R. 130)
- Hamilton New London Road (U.S. 27 to Hamilton Corp Line)
- Jenkins Road (South Wynn Rd to Chapel Rd)
- Lanes Mill Road (Nichols Rd to Shollenbarger Rd)
- Nichols Road (Lanes Mill Rd to S.R. 177)
- Riggs Road (Brookville Rd to Contreras Rd)
- Somerville Road (S.R. 177 to Hamilton Eaton Rd)
- South Wynn Road (S.R. 126 to Jenkins Rd)
- Stillwell Beckett Road (Riggs Rd to S.R. 732)
- Taylor School Road (Eaton Rd to Seven Mile Corp Line)
- Trenton Road (Roundabout to Trenton Corp Line)

Various Township Roads/Subdivision Streets (20.221 total miles)

- Fairfield Township (1.863 total miles)
- Liberty Township (4.222 total miles)
- Madison Township (3.241 total miles)
- Milford Township (0.073 total miles)
- Oxford Township (1.060 total miles)
- Reily Township (0.591 total miles)
- Ross Township (1.069 total miles)
- West Chester Township (8.102 total miles)

Total Construction Cost (Black Mat): \$449,081

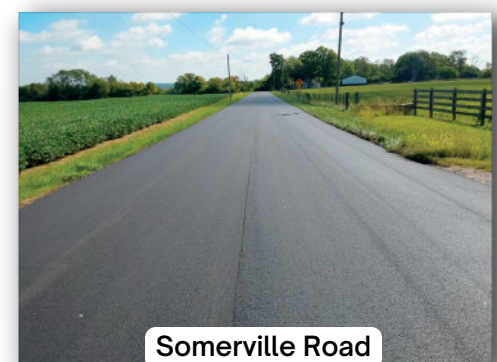
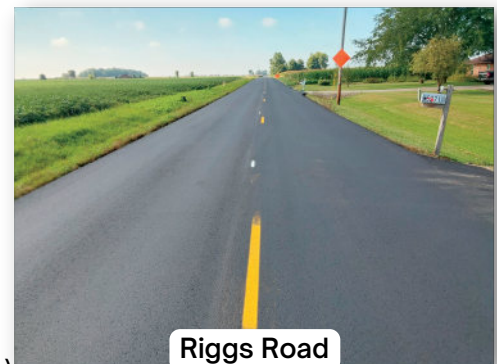
Total Miles: 5.490

Funding: Townships

Hanover Township (0.757 total miles)

Liberty Township (3.019 total miles)

Ross Township (1.714 total miles)



Miscellaneous

Miami 2 Miami Multi-Use Path

1.61 miles of paved multi-use trail, connecting the existing Gilmore and Bilstein trailheads to the existing portion of the Erie Canal Trail near the S.R. 4 Bypass.

Total Construction Cost: \$1,765,147

Funding: Federal (ODOT), BC MetroParks, City of Hamilton



Miami 2 Miami Multi-Use Path



Reily Walking and Fitness Trail

Paved Community Center's existing path five feet wide by 2560 feet with two inches of asphalt.

Total Construction Cost: \$77,498

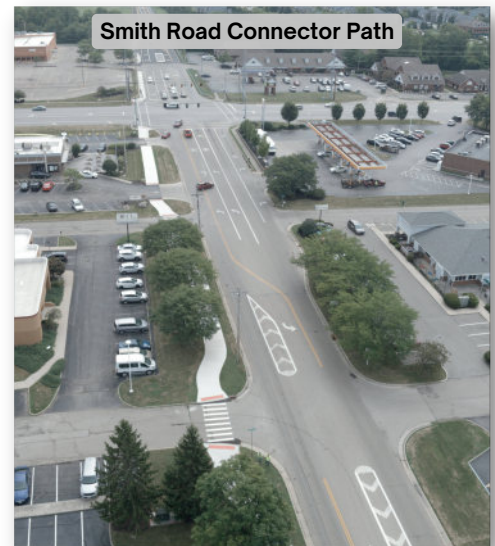
Funding: BC Community Development, Reily Twp

Smith Road Connector Path

Constructed shared-use path on the north side of Smith Road from existing path west of Beckett Park Drive to existing path just west of Beckett Road.

Total Construction Cost: \$518,008

Funding: Federal, BCWS, BCEO



Smith Road Connector Path

Retrace of Various County and Township Roads

Total Construction Cost: \$395,800

Funding: BCEO; West Chester, Fairfield, Liberty, Oxford, Milford, Morgan, Wayne, Madison, Lemon Townships; Village of New Miami

Liberty Way Signal

Installation of a mast arm traffic signal at the intersection of Liberty Way and Veterans Boulevard.

Total Construction Cost: \$311,038

Funding: BCEO



Veterans Blvd to Liberty Way



Liberty Way to Veterans Blvd

Departments

Design & Engineering

During 2022 the Engineering Department was developing plans and right-of-way acquisition for the following projects:

- **21** Culvert Replacements
- **6** Bridge Replacements/Rehabilitations
 - Baker Road Bridge #00.135 - Superstructure Replacement
 - Elk Creek Road Bridge #05.000 - Replacement
 - Gates Road Bridge #00.695 - Replacement
 - Gene Avenue Culvert - Replacement
 - Harris Road Bridge #01.645 - Superstructure Replacement
 - Princeton Road Bridge #06.887 - Replacement
- **2** Roadway Improvements
 - Liberty Way Widening (I-75 to Veterans Boulevard)
 - Tylersville Road - Additional Center Turn Lane (west of Lakota Hills Drive)
- **6** Intersection Improvements
 - Millikin Road at Lesourdsville West Chester Road (north) Roundabout
 - Millikin Road at Morris Road Roundabout
 - Princeton Road at Mauds Hughes Road (south) Roundabout
 - Stahlheber Road at Morman Road Roundabout
 - Tylersville Road at Beckett Road Roundabout
 - Tylersville Road at Smith Road Signal
- **7** Safety Upgrades
 - Butler Miami 2 Miami Trail Extension (City of Hamilton/MetroParks)
 - Fairgrounds Paving
 - Greenlawn Drainage, Phase 1 (Fairfield Township)
 - Greenlawn Drainage, Phase 2 (Fairfield Township)
 - Hanover Township Administration Parking Lot
 - Juvenile Center Drainage
 - Chapel Road at Layhigh Road Drainage
- **1** Interchange Improvement
 - S.R. 129/Liberty Way Interchange Modification

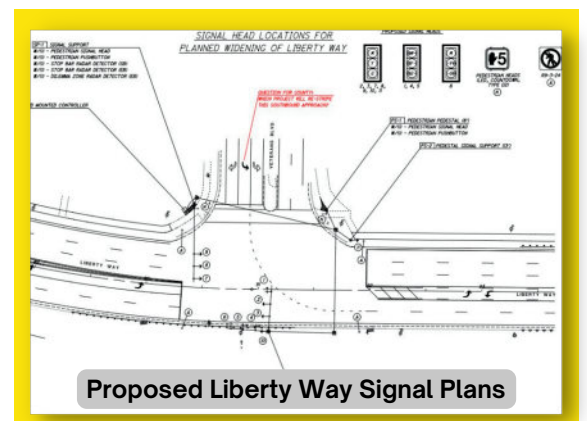


In 2022, the Traffic Office executed the following:

- Maintained **77** traffic signals, **2** flashers, **9** PED X-ING signals (\$77,858).
- Maintained **11** school zone signals (school flashers).
- Maintained **15** modern roundabouts.
- Maintained **14** traffic operation cameras.
- Maintained **5** closed loop signal systems (\$21,600).
- Managed county-wide pavement marking retrace contract.
- Performed **8** speed studies.
- Reviewed **12** Traffic Impact Studies (TIS).
- Received **1,194** OUPS tickets and marked **270** locations.

The Operations Department, in conjunction with the Traffic Office, executed the following in 2022:

- Maintained **7,500** traffic control signs.
- Produced drawings, set up and maintained road closures/detours.
- Managed signage and traffic control for all BCEO projects.
- Supplied signs for other Butler County agencies as requested.
- Operated sweeper truck for BCEO and Storm Water needs.



Development Services

The residential market saw a sharp increase in multi-family development in Fairfield, Liberty, and West Chester Townships. Preliminary approval was obtained allowing 4 multi-family projects totaling 794 dwelling units. Single-family development continues to trend in a positive direction with preliminary approval for 179 residential lots.

2022 saw a significant upswing in light manufacturing, technology, and mixed-use real estate. West Chester Trade Center continues to draw exciting tenants like GE Additive, Fameccanica, Hammacher Schlemmer, AeroFlex, Gexpro, MSI Surfaces, Atlas Machine & Supply, Express Therapeutics, TSC Apparel, and many more. Currently, two additional buildings are under construction on 80-acres at the southwest corner of S.R. 747 and Union Centre Boulevard. The project will include increased floodplain storage, turn lane improvements, and a pedestrian bridge to connect the development to a walking path along S.R. 747.

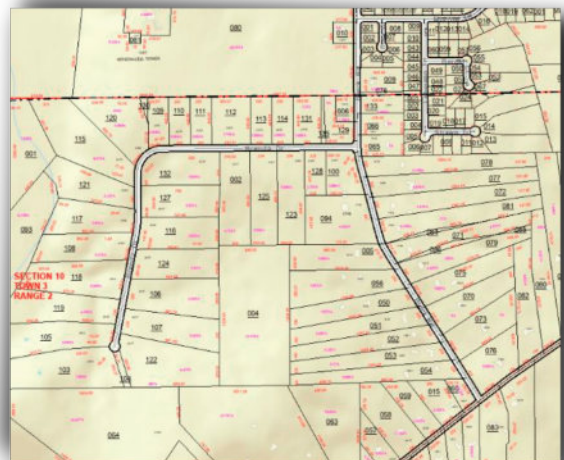
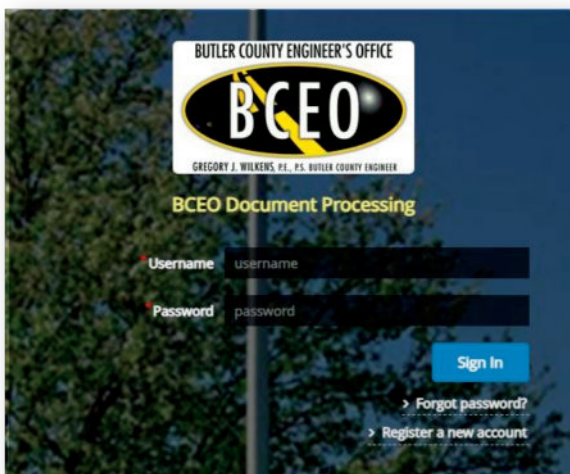
Another area primed for development is Freedom Pointe. Located adjacent to the newly configured interchange at S.R. 129/I-75/Liberty Way, this project included the extension of Veterans Boulevard from Liberty Way to Cox Road. As part of the project, three roundabouts were constructed to manage the flow of traffic through the area. There are several projects in the planning stages that will complement the Costco Warehouse and surrounding uses. Expect to see a lot of activity in this area during 2023!



GIS/Tax Map/Record/IT

In 2022, the GIS/Tax Map/Records/IT Office executed the following:

- Maintained the Butler County Tax Map website.
- Assigned **1,004** new parcel numbers for the Butler County Auditor.
- Assigned and verified **967** addresses for the county's unincorporated areas.
- Read **24,714+** legal descriptions for the transfer of property for the Butler County Auditor.
(Does not include walk-ins.)
 - **4,161** received via BCEO Document Submittals App
 - **2,209** received via email
 - **18,344** received via eFile system accessed from the Butler County Recorder's Office
- Maintained BCEO Document Submittals App, accessed on www.bceo.org (<https://gis.bceo.org/>).
- Reviewed **37** subdivision plats for the Butler County Planning Department.
 - **4** Preliminary
 - **12** Replats
 - **21** Finals
- Scanned present and historic tax map documents.
- Maintained efficient access to public county records.
- Prepared presentations for BCEO projects.
- Maintained BCEO GIS infrastructure including roadway mileage.
- Completed the update of our GIS environment, Tax Map, Project Map, and Internal Maps.
- Hired **1** new IT/GIS personnel to advance our GIS data.
- Continued development of our Drone program.
- Updated network security, speed, and reliability.
- Updated our infrastructure, including hardware and operating system within a new virtual environment.
- Maintained computers, servers, and communication equipment.
- Developed and implemented scheduled replacement of Workstations, Laptops, and Tablets to meet ever-changing technological needs.
- Updated field applications for tracking maintenance of roads, bridges, culverts, storm sewer systems, and other infrastructure.



Construction

The BCEO Construction Department oversees the implementation of all capital improvement contracts for bridge, roadway, paving, and intersection construction. This includes preparing and managing contracts and payments to contractors, utility coordination and relocation, and construction inspection.

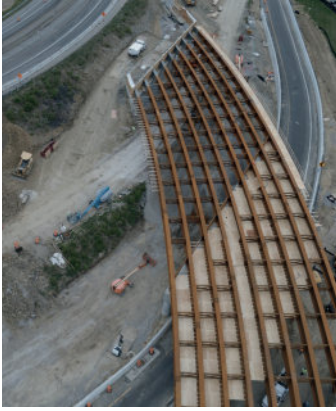
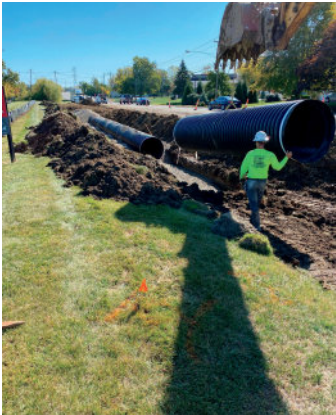
Additionally, the Department performs inspections of culverts and pavement conditions. Driveway, right-of-way, and special hauling permits are also reviewed and issued by the Construction Department.

In 2022, the Construction Department prepared and managed 14 capital improvement and repair contracts.

Please see pages 1 through 6 to view the 2022 project information.



Easy access to past, current, & upcoming BCEO projects!



Operations

The Operations Department is responsible for all Force Account projects (as seen on the CULVERTS & DRAINAGE section, page 2) as well as the general day-to-day maintenance and seasonal type maintenance of bridges and roads on the county roadway system.

TOTAL SPENT ON GENERAL MAINTENANCE IN 2022: \$2,462,928

During 2022, the Operations Department added the following equipment:

- 1 - 2024 Western Star Day Cab
- 2 - 2022 Western Star Dump Trucks
- 1 - Tymco Street Sweeper
- 2 - John Deere Tractors with Mowers
- 1 - 2022 GMC Sierra 2500 Truck
- 1 - 2022 GMC Sierra 1500 Crew Cab Truck
- 1 - 2022 GMC Sierra 1500

Each spring the BCEO advertises for bids on **BULK-TREATED SODIUM CHLORIDE** for the following winter. These bids are compiled in conjunction with various cities and townships to get a better price. This resource sharing has become critical for local and regional jurisdictions as the cost of fuel and materials steadily increases.

COST: \$85.92 PER TON

LOCAL FUNDS BY BCEO; BC MetroParks; BC Water & Sewer; City of Fairfield; Village of New Miami; City of Oxford; Fairfield, Hanover, Liberty, Madison, Milford, Morgan, Oxford, Reily, St.Clair, Wayne, and West Chester Townships.

2022 SNOW AND ICE CONTROL SUMMARY (JAN. 1 - DEC. 31)

- TOTAL COST: \$803,391
- Total Road Salt Used: 5,019 Tons
- Total Brine/Calcium/Amp Used: 23,287 Gallons
- Total Manhours Used for Snow and Ice Control: 4,383
- Total Labor Cost: \$151,045



Administration

2022 Income

Intergovernmental Revenue

Gasoline Tax	\$ 3,700,502.54
Motor Vehicle License Fees	\$ 7,789,552.22
Permissive Tax - State Levy	\$ 1,048,663.15
Other Government Reimbursements	\$ 2,493,283.17
LPA Reimbursements	\$ 592,116.21
Interest Earned	\$ 182,850.84

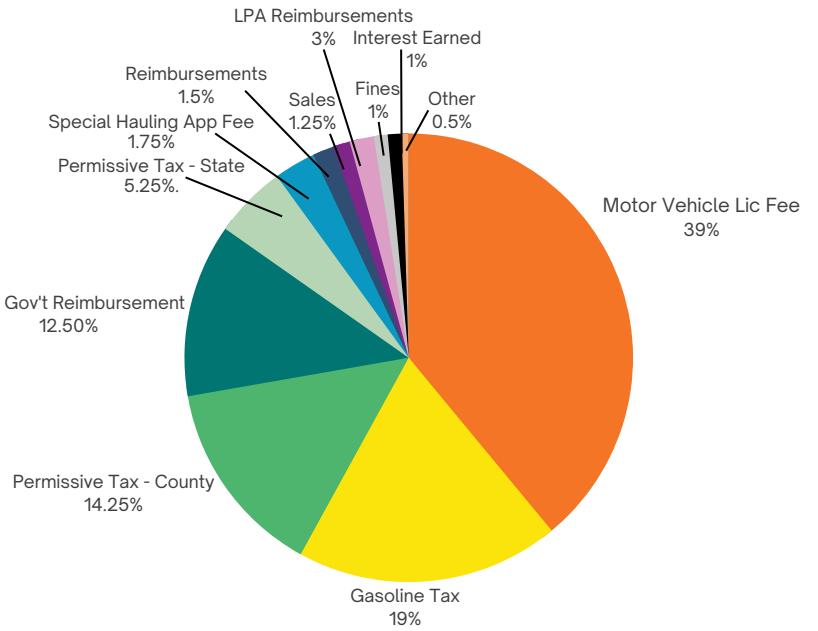
Total **\$ 15,806,968.13**

Intragovernmental Revenue

Sales	\$ 230,758.79
Fines	\$ 206,215.29
Other	\$ 10,506.15
Reimbursements	\$ 277,984.16
Inspection Fees & Permits	\$ 232,473.55
Project Management	\$ 0
Permissive Tax - County	\$ 2,878,956.45
Surety Bond/Subdivision Foreclosures	\$ 0
Study Grant	\$ 0
Special Hauling Application Fee	\$ 360,928.18

Total **\$ 4,197,822.57**

Total Revenue **\$ 20,004,790.70**

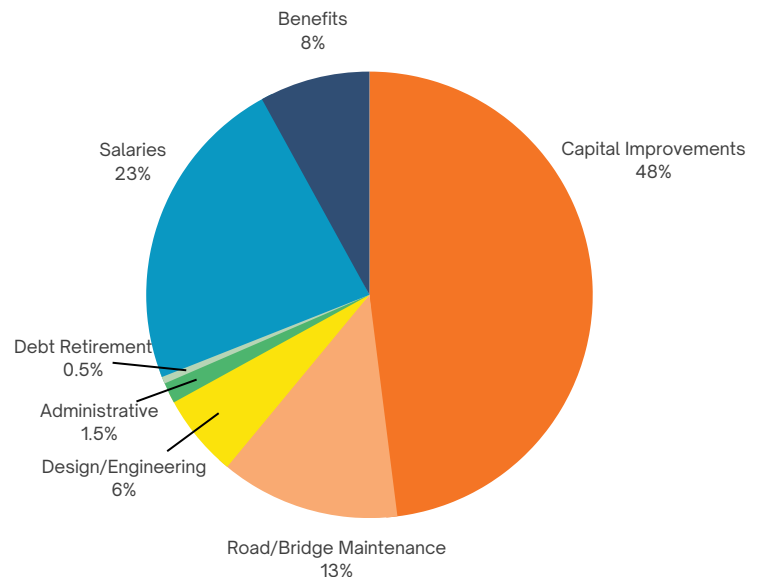


2022 Expenditures

Capital Improvements	\$ 9,793,230.32
Road/Bridge Maintenance	\$ 2,621,262.12
Design/Engineering	\$ 1,140,630.05
Administrative	\$ 276,454.46
Debt Retirement	\$ 124,288.26
Salaries	\$ 4,746,040.02
Benefits	\$ 1,660,140.21

Total **\$ 20,362,045.44**

Total Revenue **\$ 20,362,045.44**
Total Expenditures **\$ 20,362,045.44**



Human Resources

- **77** Employees
- **5** Full-time permanent "new hires" in the GIS, Development Services/Storm Water, and Operations departments.
- **9** Co-ops hired in the Engineering and Construction departments.

BUTLER COUNTY ENGINEER'S OFFICE



GREGORY J. WILKENS, P.E., P.S. BUTLER COUNTY ENGINEER



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