Civil Engineering Use of Scrap Tires Waste to Reuse
2019 - Dickinson County Road Commission
County Road 607 Project

• EGLE Scrap Tire Grant Program provided half the cost -- or $325,000 -- of the $650,000 project, which used nearly 4,000 scrap tires.

• "Our hopes are that this project will demonstrate that rubberized asphalt not only is smoother, quieter, and longer lasting than traditional asphalt, but can also be made economically," said Lance Malburg, an engineer with the Dickinson County Road Commission.

• Project partners:
  • Dickinson County Road Commission
  • Michigan Technological University
  • Asphalt Plus LLC
  • BAACO Construction Company

• Three sections of road were paved for comparison and testing using:
  • Conventional hot mix asphalt base top layer.
  • Engineered crumb rubber hot mix asphalt base with conventional top layer.
  • Hot mix base with engineered crumb rubber as both the base and top layers.

• The ground tire powder was added to the asphalt at the plant. Known as a "dry" process, it is easier to control and monitor, and is less expensive than adding the rubber through the liquid asphalt. Using the powder also makes the process easier to duplicate by other asphalt contractors.

• The sections will be compared, monitored, and tested by MTU and the Road Commission, specifically watching for cold weather cracking resistance of the two asphalt mixes.
2019 - Dickinson County Road Commission
County Road 607 Project

Recycled tire scraps are potentially paving the way to future roadways, through a $650,000 grant partially funded by EGLE. The research project, which began last week, has paved 3 sections of a county road using conventional asphalt & 
recycled rubber tires.
#MiRecycles
2018 Road Commission of Kalamazoo County West W Avenue Project

• EGLE Scrap Tire Grant Program provided half the cost -- or $221,964 -- of the $443,928 project, which used an estimated 13,672 scrap tires.

• “The purpose of the project is to evaluate the new reacted and activated rubber and to investigate the applicability of such rubber mainly composed of finely grinded scrap tires. The aim is to create a more cost-effective, long-lasting, safe and environmentally friendly, mixes and surface treatments.” Dr. You said.

• Project partners:
  • Road Commission of Kalamazoo County
  • Michigan Technological University

• Four sections, each approximately 4,000 feet spanning both lanes:
  • Hot Rubber Chip Seal (never done before used in the United States)
  • Hot Rubber Thin Overlay
  • Two conventional chip seal application segments for control purposes.

• The project won a 2018 Branch Award for Public Works Project of The Year from the Michigan Chapter of the American Public Works Association.
2018 Road Commission of Kalamazoo County
Project Videos (courtesy MTU)
2017 Midland County Road Commission
Eastman Road Project

• EGLE Scrap Tire Grant Program provided half the cost - or $431,947 -- of the $863,894 project.

• Project partners:
  • Midland County Road Commission
  • OHM Advisors
  • Central Asphalt

• Tires utilized in the project:
  • TDA (Tire Derived Aggregate) Subbase: 115,153
  • TDA Culvert Backfill: 1,622
  • RMA (Rubber Modified Asphalt) Paving: 2,780
  • Total scrap tires used: 119,555

• EGLE Scrap Tire is taking water quality samples on the project.
2017 Midland County Road Commission
Eastman Road TDA Installation
2016 St Clair County Road Commission Lightweight Bridge Deck Project

• EGLE Scrap Tire Grant Program provided half the cost -- or $33,176 -- of the $70,352 project, which used an estimated 130 scrap tires.

• Project partners:
  • St Clair County Road Commission
  • Recycling Infrastructure Solutions (RIS)

• Three bridges utilizing MDOT approved epoxy resin along with recycled aggregate of crushed glass and poly fiber crumb rubber.
  • Comstock Road
  • Norman Road
  • Griswold Road

• Use of 190 cubic feet of crushed glass for every 1,000 square yard replaced. Estimated savings of $6,000 for landfill costs of glass alone.
2016 St Clair County Road Commission
Lightweight Bridge Deck Project
2016 Bay County Road Commission Wilder Road Project

• EGLE Scrap Tire Grant Program provided half the cost -- or $433,704 -- of the $867,408 project, which used an estimated 6,435 scrap tires.

• Project partners:
  • Bay County Road Commission
  • EGLE Scrap Tire Program

• The project utilized ground rubber hot mix asphalt to pave five lanes for a length of approximately 1.6 miles.
2016 Bay County Road Commission
Wilder Road Project
Other Scrap Tire Grant Projects of Interest

• City of Mackinac Island – Paving utilizing waste glass generated on the Island. Project Partner is Renewable Infrastructure Solutions (GreenDeck).

• Kent County Road Commission – Paving 0.5 miles of Cascade Road (from Burton to 28th) at a width of 60 feet. Comparison project with half to utilize polymer-modified and half to utilize emulsified rubber. Michigan Tech University as partner.

• Detroit Police Department – Law enforcement grant to reduce dumping of scrap tires in the City of Detroit.

• Lake Superior Shoreline in Ontonagon – Cleanup grant to remove nearly 100 oversized mining tires from 1.5 miles of shoreline.
Other Innovative Uses of Scrap Tires

- Scrap Tires can be reused in other ways:
  - Mulch
  - Rain Gardens
  - Septic Fields
  - Construction Barrel Weights
  - Silage Weights
  - Plastic Molded & Extruded Products
  - Porous Pave, Grant, Michigan (2019 porous pavement at the Dow Gardens Canopy Walk)
  - Manure Scrapers – Mensch Manufacturing, Hastings, Michigan
Other Uses of Scrap Tires

Scrap tire mulch and extruded edging. Mulch can be dyed custom colors.

Scrap tire drainfield aggregate.

Scrap tires silage weights.
Scrap Tire Grant Funding

- EGLE Scrap Tire Program has $3.5 million for grant funding annually*.

- Grant money is prioritized:
  - Cleanup
  - Law Enforcement
  - Market Development

- Cleanup Grants – community collection days, cleanups of abandoned tires – usually around $1.25 million and cleans up over 600,000 scrap tires. ($2 per tire; $2000 per loaded semi trailer of ~1000 tires)

- Market Development Grants receive the remainder of the annual funding and are reviewed and scored by a committee composed of EGLE and MDOT staff.
Questions?

2019 Cleanup Grant
Lake Superior Shoreline
Ontonagon
EGLE Update CEW 2020

James Watling, PE
WRD - Transportation Review Unit
517-599-9002 | watlingj@michigan.gov
Organizational Changes

• New name
• Public advocate offices - make it easier for citizens to register their concerns and improve accountability
• New office on climate policy - reduce emissions of greenhouse gases and promote renewable energy while helping Michigan adjust to a warmer world
• Strengthening an interagency team dealing with the emerging threat of toxic chemicals in drinking water, known as per- and poly-fluoroalkyl substances, or PFAS
• The Michigan Agency for Energy and the Office of the Great Lakes is now part of Dept of Environment, Great Lakes, and Energy.
More Changes – Water Resources Division

WATER RESOURCES DIVISION
Field Operations Support Section
Amy Lounds, SAM 15
Holly Simon, Exco Sec 10
Chris Antleau, EGS 13
Tom Graf, EGS 13
Kate Lederle, EGS 13

Coastal Management Unit
Ronde Waycheck, Env Mgr 14
Bunny (Virginia) Berry, Sec 8
Karen Boase, EGA 12
Madeleine Gorman, EGA 9
Weston Hillier, EGA 11
Matt Smor, EGA 12
Matt Warner, EGS 13

Licensing and Technology Support Unit
Sarah Erfinger, Env Mgr 14
Frances Kline, Sec 8
Kara Benjamin, DA 12
Zachary Chamberlin, Student Assistant (Kzoo)
Missy Charbonneau, DA 12
Nathan Noll, EGA 11
Alyssa Sarver, EGA 9
Mark Schiebe, EGS 13 (Kzoo)
Earl Wiestinko, EGS 13
Vacant, Student Assistant

Transportation Review Unit
Jim Wolbing, Env Mgr 14
Kim Wood, Sec 8
Luke Golden, EGA 12 (Cadillac)
John Gustabson, EGA 12 (Marquette)
Mike Brzyzy, EE Lic 12
Ashley Rozowski, EE 11
Minmin Shu, EE Lic Spl 13
John Stubena, EGA 12
Holly Vickers, EGA 12

Enforcement Unit
Dave Pingol, Env Mgr 14
Holly Simon, Exco Sec 10
Chris Conn, EGS 13
Susan Doty, EGA 13
Jeff Fischer, EGA 13 (GR)
Natasha Gauna, EGA 11
Laura Mathews, EGA 11
Sara McAskill, EGA 9
Helena Nelson, EGA 13
Kelsey Schoon, EGA 9
Justin Smith, EGS 13 (Lansing)
Kris Wilson, EGS 13 (Marquette)
Kathlyn Wysoci, EGS 13
Vacant, EGA 9-11 (New)

Hydrologic Studies and Dam Safety Unit
Mario Fusco, Eng Lic 14
Donna Cervelli, EE Lic 12
Dan DeVau, EE Lic 12 (Cadillac)
Susi Greiner, EE Lic Spl 13
Steve Holden, EE 11
Mina Kukuk, EE 9
Marlo Lomato, EE Lic Spl 13
Matt Occipinti, EE Lic Spl 13 (GR)
Luke Trumbull, EE Lic 12
Vacant, Env Eng 12 (New)

Wetlands, Lakes, and Streams Unit
Anne Garwood, Env Mgr 14
Jamie Bohr, Sec 8
Amy Berry, EGA 12
Jeff Brogland, EGA 11
Eric Calabro, EGA 10
Chad Fizzell, EGS 13
Keto Geykes, EGS 13
Jeremy Jones, EGA 12
Bethany Matousk, EGA 12
Mike Pennington, EGS 13
Mike Van Loan, EGA 11
Vacant, EGA 12 (Garwood)
TRU Permitting Staff

- John Gustafson, 906-203-9887
  Upper Peninsula District Office
  Cadillac District Office
- John Skubinna, 517-284-5501
  Lansing Office
- Holly Vickers, 616-295-2787
  Grand Rapids District Office
TRU Engineering Staff

- Linda Hansen, 906-353-7522
  Baraga Field Office
- Minmin Shu, 517-284-5506
  Lansing Office
- Ashley Roznowski, 517-284-5504
  Lansing Office
- Michael Prysby, 517-
  Lansing Office
TRU webpage:
www.michigan.gov/deqtransportationreview

MiWater:
miwaters.deq.state.mi.us/miwaters

Joint Agency Transportation Committee:
www.michigan.gov/deq/0,4561,7-135-3313_3684_15299-11310--,00.html
<table>
<thead>
<tr>
<th></th>
<th>MDOT</th>
<th>County</th>
<th>Municipal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications Received</td>
<td>92</td>
<td>418</td>
<td>58</td>
<td>568</td>
</tr>
<tr>
<td>Incomplete Applications</td>
<td>14</td>
<td>127</td>
<td>24</td>
<td>165</td>
</tr>
<tr>
<td>Emergency Applications</td>
<td>0</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Permit Revision Requests</td>
<td>18</td>
<td>21</td>
<td>6</td>
<td>45</td>
</tr>
<tr>
<td>Applications Processed</td>
<td>108</td>
<td>432</td>
<td>46</td>
<td>586</td>
</tr>
<tr>
<td>PNs Processed</td>
<td>30</td>
<td>115</td>
<td>12</td>
<td>157</td>
</tr>
<tr>
<td>Red Files Processed</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MPs Processed</td>
<td>74</td>
<td>313</td>
<td>28</td>
<td>415</td>
</tr>
<tr>
<td>GPs Processed</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Preliminary Reviews (Hyd + Env)</td>
<td>85</td>
<td>313</td>
<td>14</td>
<td>412</td>
</tr>
<tr>
<td>Complaints Resolved</td>
<td>9</td>
<td>29</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>Hydraulic Reviews</td>
<td>9</td>
<td>102</td>
<td>5</td>
<td>116</td>
</tr>
<tr>
<td>Part 31 Review (No Modeling)</td>
<td>77</td>
<td>337</td>
<td>30</td>
<td>444</td>
</tr>
<tr>
<td>Flood Discharges Provided</td>
<td>136</td>
<td>312</td>
<td>33</td>
<td>481</td>
</tr>
</tbody>
</table>
## 5 Year Comparison

<table>
<thead>
<tr>
<th></th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applications Received</strong></td>
<td>510</td>
<td>641</td>
<td>493</td>
<td>539</td>
<td>568</td>
</tr>
<tr>
<td><strong>Applications Processed</strong></td>
<td>482</td>
<td>529</td>
<td>460</td>
<td>520</td>
<td>586</td>
</tr>
<tr>
<td><strong>Preliminary Reviews</strong></td>
<td>531</td>
<td>419</td>
<td>516</td>
<td>550</td>
<td>412</td>
</tr>
<tr>
<td><strong>Hydraulic Reviews</strong></td>
<td>347</td>
<td>498</td>
<td>426</td>
<td>553</td>
<td>560</td>
</tr>
<tr>
<td><strong>Flood Discharges Provided</strong></td>
<td>396</td>
<td>323</td>
<td>389</td>
<td>454</td>
<td>481</td>
</tr>
<tr>
<td><strong>Incomplete Applications</strong></td>
<td>21%</td>
<td>*</td>
<td>28%</td>
<td>29%</td>
<td>28%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meetings/Field Inspections</strong></td>
<td>931</td>
<td>867</td>
<td>1031</td>
<td>1186</td>
<td>898</td>
</tr>
<tr>
<td><strong>CRC Council Meetings Attended</strong></td>
<td>14</td>
<td>20</td>
<td>31</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td><strong>Presentations/Training/Technical Assistance Made</strong></td>
<td>5</td>
<td>4</td>
<td>10</td>
<td>19</td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>30 days &amp; under</strong></td>
<td>66%</td>
<td>47%</td>
<td>67%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>31-60 days</strong></td>
<td>28%</td>
<td>44%</td>
<td>27%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>61-90 days</strong></td>
<td>4%</td>
<td>6%</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>over 90 days</strong></td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Permitting & Compliance

What can I do here?

For registered users, MiWaters is the portal to several types of actions:

- Apply for permits
- Manage your permits (pay fees, apply for renewals)
- Submit reports (required by your permit or certification)
- Submit service requests
- View issued permits
- See your notifications
- Review evaluations / site inspections

To get started, you'll need an account.

CREATE A MIWATERS ACCOUNT

Sign in with an existing account
# MiWaters - Transportation

<table>
<thead>
<tr>
<th>Form Name</th>
<th>Form Description</th>
<th>Program Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td><strong>Digital PUBLIC TRANSPORTATION AGENCY Projects</strong> EGLE/USACE Joint Permit Application (JPA) for Inland Lakes and Streams, Great Lakes, Wetlands, Floodplains, Dams, Environmental Areas, High Risk Erosion Areas and Critical Dune Areas</td>
<td>Resources Begin Submission</td>
</tr>
<tr>
<td>Transportation Emergency Request Form</td>
<td>Emergency Information Sheet For Bridge or Culvert Failure</td>
<td>Resources Begin Submission</td>
</tr>
<tr>
<td>Transportation Service Request – T&amp;E Species Map/Data Review (Preliminary Desktop Review)</td>
<td>Request a desktop review for the occurrence of threatened &amp; endangered species and other items of concern such known contamination and proximity to Section 10 waters. Transportation project that use federal funds and require T&amp;E clearance can submit this</td>
<td>Resources Begin Submission</td>
</tr>
<tr>
<td>Voluntary Transportation Preliminary Review Request</td>
<td>The Joint Agency Transportation Committee (JATC) consisting of a number of departments including EGLE has developed this form to allow Public Transportation Agencies to solicit early hydrologic/hydraulic and environmental input on their future projects.</td>
<td>Resources Begin Submission</td>
</tr>
</tbody>
</table>
MiWaters – Permit Revisions

Select New Form Category

Please choose from the following:

- **Permit Change Forms**: Forms used to **reissue**, **modify**, **transfer** or **terminate** a permit.
- **All Other Forms**: Applications, Service Requests, and other forms **not pertaining to** permit change requests.
• Use Correct “TRANSPORTATION” form
• Place site on map correctly (kml files for larger projects)
• MiWaters is organized by “site” or project location.
MiWaters – Frequent Problems

New Digital Joint Permit Application

- Bridges
- Culverts

The Proposed Project will involve the following resources (check ALL that apply):
- Wetland
- Stream or River
- Proposed Stream Mitigation
- Great Lake
- 100-year Floodplain
- Critical Dune Area
- Environmental Area
MiWaters – Frequent Problems

Correction Requests

Correction and Form Output

Testing Correction and Form Output

Application HNU-TXTP-58ZBE — Internal Testing of JPA - new version 12...

ON HOLD - ACTION NEEDED

The submission was received on 12/05/2018. blah blah blah. Contact Mark Schieber at (269) 566-2750 or SchieberM@TESTmichigan.gov with questions.

Revise

Testing Correction and Form Output

Application HNU-0K5W-TEWZV — Internal Testing of JPA - new version 12...

ON HOLD - ACTION NEEDED

The submission was received on 12/04/2018. The latest draft revision is v3, please respond to correction request, review application and respond to requests for corrections. Contact Mark Schieber at (269) 566-2750 or SchieberM@TESTmichigan.gov with questions.

Continue Delete Draft
MiWaters – Frequent Problems

Correction Requests

Comment

Content

No really I am the owner, maybe records are not updated yet.
Bankfull Structures

• Under Part 301, resource impacts must be minimized
• Bankfull considered “minimal” impact
  – Allows for natural stream function (transporting water & sediment)
  – Fish passage (<2 fps for < bankfull events)
• Bankfull incentivized by qualifying for minor project
• Applications <Bankfull must be justified (and documented)
• Alternatives Analysis
Bankfull Measurements

Straight Area of Stream (riffle)
Away from Road Influence
Pathway Projects

- Road Commission must be “proper” applicant.
  - Own the right-of-way/property
  - Oversee construction

- Responsible for permit compliance
T&E Species
Michigan Mussel Protocol

• EGLE Screening Tool

• No Review Required
  - Placement of structures on pilings, such as docks, boat hoists, and spring piles.
  - Maintenance dredging within the footprint of an area that has been actively dredged in the past 5 years under a MDEQ/EGLE permit.
  - Culvert replacements that do not increase the length of the culvert.
Michigan Mussel Protocol

- No Review (GPs)
  - Clear Span Bridge (C)
  - Structures on pilings (Z)
  - Dry Hydrants (J)
- No Review (MPs)
  - Maintenance/Repair Serviceable Structures (22)
Review Required

Initial screening by EGLE staff includes:

1. Consider any previous survey effort within or near a project area;
2. A site inspection by EGLE staff or qualified individual (someone with a state or federal permit to handle native mussels).
   • This site inspection should include a visual review of stream substrates, as well as a visual survey of the stream bed and banks for shells, shell fragments or live mussels.
EGLE Permit Processing

- If initial screening indicates **federally listed mussels are likely present**, then the permit application would be **Red-Filed**.
  - During the Red File process, EGLE, FWS and the applicant will discuss necessary survey effort and appropriate process under the Endangered Species Act to authorize relocation activities. FWS will coordinate with EPA.
  - **Applicant may need to withdraw EGLE application if survey timing is problematic.**

- If initial screening indicates **state listed mussels are likely present**, then the permit application will be **Public-Noticed**.
  - DNR Fisheries Division staff and Wildlife Division staff copied on PN.
  - During the Public Notice process, EGLE, DNR, and applicant will discuss necessary survey effort and relocation plan.
Eastern Massasauga Rattler

Google “Environmental Screening for Eastern Massasauga in Michigan”

Use Herp-Friendly stabilization
Other Compliance Concerns

- Soil Erosion and Sedimentation Control
- Asbestos Testing
- Environmental Licensing Agreement (Part 213)
- Water Withdrawal
Other Compliance Concerns

Soil Erosion and Sedimentation Control
#1 PTA Violation

- Transportation APAs must follow their approved SESC Operating Procedures to be in compliance with the program.
- Maintenance projects are subject to SESC – and again should be listed in their approved SESC Procedures.
- **Temporary SESC measures shall be maintained on a daily basis and Permanent stabilization shall occur within 5 days of final grade.**
- Inspections must be completed and documented on all projects, including maintenance projects. Maintenance projects are not exempt from inspections.
- The best way to show that the agency completed the project with the correct stabilization is photos.
- Documented inspections MUST occur, and Temporary measure MUST be maintained until the site is STABILIZED.
Asbestos Testing

- Required for all “facilities” (includes bridges)
- Certified Asbestos Tester
- Each different material must be tested.
- Must file “Notification of Intent to Renovate/Demolish” online submission
- Contact Jeremiah Brown, AQD - 517-599-7825
Environmental Licensing Agreement (Part 213)

- Leaking Underground Storage Tank Sites
- Allows Contaminated Site to be closed and contamination to remain in place under roads.
- Environmental Mapper
- Road agency must notify MDEQ if performing work in a site with an ELA (Notice of Onsite Work Activity – 48 hours)

Resource and Redevelopment Division Contacts:
Joshua Mosher (517) 285-5137
or Kevin Schrems (517) 284-5149
Large Quantity Water Withdrawal (Part 327)

- ‘Withdrawal’ is removal of water from its source, including from groundwater or a surface water body
- Construction Dewatering/Dust Control/Other consumptive use (Discharging back to watershed is exempt)
- No Adverse Resource Impact
- >70 gpm pumping capacity – maintain records
- If total volume is >3 million gallons over 30 days, need to register with EGLE
- 2 levels of authorization: registration (180 MG total) and permit (>180 MG and > 2 MGD)
- Apply for Registration via online Water Withdrawal Assessment Tool (not through MiWaters)
- Immediate Registration or up to 2 weeks if EGLE review req’d
- Permit review period is up to 120 days (incl. PN) and $2k fee.
- Contact Andy LaBaron (517) 284-5563
Voluntary Preliminary Reviews

• Request in MiWaters
• Prior to project design
• Includes T&E Search and usually DNR Comments
• Includes a site inspection
• Typically 60 day turn-around
• Can also submit hydraulic models
T&E Species Map/Data Reviews

• Request in MiWaters
• Project Scoping/Scheduling
• Provides Documentation for environmental clearances for upland projects that won’t require a EGLE permit
• Don’t submit with permit application
• Typically 15 day turn-around
Great Lakes Water Levels

• Water levels are cyclical with periods of low and high water
  – Can last for several years
  – Influenced by precipitation, runoff, and evaporation

• All the Great Lakes are currently at or near record highs
Great Lakes Water Levels

Daily Great Lakes Water Levels

- Lake Superior
- Lake Mich-Huron
- Lake St. Clair
- Lake Erie

(Labeled graphs showing water levels over time from January to December, with data for 2019, 2018, and a coordinate forecast.)
## Precipitation ranks (detailed)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Precipitation</th>
<th>Rank</th>
<th>Duration</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2018–Oct 2019</td>
<td>41.83&quot; (1,062.48mm)</td>
<td>124th Driest</td>
<td>Driest since: 2018</td>
<td>1963</td>
</tr>
<tr>
<td></td>
<td>32.78&quot; (832.61mm)</td>
<td>1st Wettest</td>
<td>Wettest to Date</td>
<td>2019</td>
</tr>
<tr>
<td>12-Month</td>
<td>9.05&quot; (229.87mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 2018–Oct 2019</td>
<td>65.44&quot; (1,662.18mm)</td>
<td>124th Driest</td>
<td>Driest since: 2018</td>
<td>1963</td>
</tr>
<tr>
<td>18-Month</td>
<td>52.05&quot; (1,322.07mm)</td>
<td>1st Wettest</td>
<td>Wettest to Date</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>13.39&quot; (340.11mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2017–Oct 2019</td>
<td>80.15&quot; (2,035.81mm)</td>
<td>123rd Driest</td>
<td>Driest since: 2018</td>
<td>1963</td>
</tr>
<tr>
<td>24-Month</td>
<td>65.54&quot; (1,664.72mm)</td>
<td>1st Wettest</td>
<td>Wettest to Date</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>14.61&quot; (371.09mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2016–Oct 2019</td>
<td>120.79&quot; (3,068.07mm)</td>
<td>122nd Driest</td>
<td>Driest since: 2018</td>
<td>1964</td>
</tr>
<tr>
<td>36-Month</td>
<td>98.30&quot; (2,496.82mm)</td>
<td>1st Wettest</td>
<td>Wettest to Date</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>22.49&quot; (571.25mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2015–Oct 2019</td>
<td>158.50&quot; (4,025.90mm)</td>
<td>121st Driest</td>
<td>Driest since: 2018</td>
<td>1964</td>
</tr>
<tr>
<td>48-Month</td>
<td>131.09&quot; (3,329.69mm)</td>
<td>1st Wettest</td>
<td>Wettest to Date</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>27.41&quot; (696.21mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2014–Oct 2019</td>
<td>191.62&quot; (4,867.15mm)</td>
<td>120th Driest</td>
<td>Driest since: 2018</td>
<td>1934</td>
</tr>
<tr>
<td>60-Month</td>
<td>163.85&quot; (4,161.79mm)</td>
<td>1st Wettest</td>
<td>Wettest to Date</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>27.77&quot; (705.36mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What is EGLE doing about it?

Internal response team (October 28, 2019):

- Expedite permits
- Help customers
- Improve Communications
Emergency Permit Applications

- Request in MiWaters: Digital Transportation Emergency JPA
- Complete as much of digital JPA as possible
- If MP project, will issue the permit
- If Individual project, will issue a conditional permit
- Conditional Permits require complete application and public notice follow up and issuance of final permit.