**Michigan Stream Team**

Notes from January 14, 2021 Conference Call

Notes taken by: Megan Royal

1. **Attendees**:
   1. Cyndi Rachel – USGS Upper Midwest Water Science Center
   2. Jeff Ziege – USGS Madison River & Coastal Processes Team
   3. Chad Kotke – Trout Unlimited
   4. Ralph Reznick – MI EGLE Nonpoint Source
   5. Bethany Matousek – EGLE Inland Lakes and Streams
   6. Dan DeVaun – EGLE Dam Safety
   7. Mathew Herman – EGLE Nonpoint Source
   8. Alyssa Riley – EGLE Nonpoint Source
   9. Mitch Koetije – EGLE
   10. John Skubinna – EGLE
   11. Jim Selegean – USACE H&H
   12. Megan Royal – USACE H&H
   13. Patrick Ertel – DNR Fisheries Division
   14. Kesiree Thiamkeelakul – DNR Habitat Management Unit
   15. Neil Godby – DNR Fisheries Division
   16. Jared Ross – MSU Fisheries and Wildlife Department
2. **Agency Updates**
   1. USGS
      1. GLWA funded monitoring phosphorus sensor being installed on Clinton River in Mt Clemons area
      2. Add Jeff jrziege@usgs.gov to the listserv
   2. Trout Unlimited
      1. Road stream crossings on national forest properties
      2. Chloride investigation
   3. EGLE
      1. Midland Dam Breaches
      2. RiverMorph access (Ertel says Fred Kapp at DTMB is our go to)
      3. Regulatory stream mitigation program to replace stream loss and function on landscape
      4. Update to stream stability guidance document provided to grantees, adding more information on near bank stress and geomorphology
      5. Working towards changes to dam safety program, such as owner responsibilities or lake capacity requirements; may see uptick in dam removals in the coming years. Looking to add additional dam safety staff to manage increased workload.
   4. DNR
      1. Grant proposals in review
      2. Road stream crossing inventory and dashboard
      3. Stream quantification tool
      4. Posting a fisheries biologist position GS 9-11
      5. White paper in development calling into question success of baffle culverts for fish passage
   5. MSU Fisheries and Wildlife Department
      1. Water withdrawal assessment tool improvements for non-perineal steams
      2. Fieldwork to update NHD classifications
   6. USACE
      1. Rock vein installation to mitigate lost rootwads on Clinton River restoration project in Shelby Township
      2. Sediment source tracking through imaging in lab
      3. Great Lakes high water levels
      4. Work with John Barkach at WSU to predict sediment yield in Michigan based on watershed, producing average annual regressions.
      5. Return to Au Sable River to reoccupy sediment sample locations to demonstrate black carbon sediment tracking – opportunity to give talk
      6. Conveyance changes on the St Clair River and impact to upstream lake levels
3. **Midland Dams Update (EGLE)**
   1. PPT presentation given by Dan Devaun.
   2. MDOT through emergency contract with AECOM to complete engineering analysis of remaining dam structures.
      1. Identified slope stability concerns.
   3. Developed alternatives analysis for dam modifications and determined the best path forward was to lower the spillway crest to restore flow on the Tabaco River.
      1. Restoring river channel downstream that had been filled by owner
      2. Stabilize dam walls.
   4. Preferred alternative for Tittabawassee River is to demolish the remaining spillway and remove debris and sediment from river.
   5. Damaged stream crossings were deigned for lake system and may no longer be appropriate to be repaired as originally designed for a stream channel.
4. **Regional Reference Curve Update (EGLE)**
   1. Contract with Green Watershed Restoration (previously Stantec) to review data and determine what additional sites are needed.
   2. Field work was completed to add ~12 sites in the northern lower and additional sites to be assessed in the UP during the spring.
   3. If stream team members have channel dimension data to contribute to this dataset, send to Bethany.
   4. EGLE working on developing stream restoration website that will host these reports and datasets.
5. **Sediment Rating Curve Study (EGLE/USGS)**
   1. USGS added new stream gages that could be valuable for this study (Neil).
   2. USGS identified ~25 existing stream gage sites across Michigan with suspended sediment data.
   3. Will evaluate if MI dataset fits existing curves or if a new curve needs to be developed.
   4. Have some funding for USGS to complete bedload sampling (2-3 sites); working to select sites based on proximity to USGS offices and dataset gaps.
   5. USACE has bedload sampling equipment that can be shared.
6. **MiSQT (EGLE)**
   1. Stream Quantification Tool (SQT) spreadsheet to evaluate stream functions to provide quantitative method for regulatory mitigations and support for restoration projects.
   2. Manual will be available for download on website under development and recorded 4-hour webinar will eventually be uploaded pending funding for closed captioning.
   3. Looking to collect additional data on large woody debris (existing protocol), bedforms, and geomorphic features such as pool to pool spacing – let Bethany know if you are able to support data collection.
   4. May become a future permit requirement following beta testing. Already asking permit applicants and consultants to provide some of the information that would populate the SQT and EGLE staff can internally evaluate.
   5. Could provide support in restoration design to address questions of when is there too much woody debris to the point that it starts negatively impacting other stream functions.
7. **Kids Creek Conductivity Study (TU)**
   1. PPT presentation by Chad Kotke.
   2. Deicing salt suspected to be contaminating surface water and building up in groundwater.
   3. Installed two Mayfly conductivity sensors (~$1,500 + $15/month) as a surrogate for sodium chloride.
      1. Sensors also measure depth and temperature with 15-minute reporting interval.
      2. Barometric pressure gage built into cable.
   4. Initial data suggests a rapid discharge of sodium chloride following snowfall events.
   5. Comparison between Pere Marquette River as a groundwater fed stream to evaluate elevated conductivity on Kids Creek and Buck Creek due to impairments.
8. **FISP Update (USACE)**
   1. Brainstorming ideas for development of the next generation of sediment samplers, such as integrated cameras or dual samplers – send ideas of what would be helpful in a sampler to Jim Selegean.
   2. RFP for available grants (~$30k); Jim will send info out to the group.
9. **Ralph’s Retirement** 
   1. Website
      1. ~$30/year for the domain name
      2. Ralph volunteers to look into ways to transition website and email listserv to group control; Megan can start assisting.
   2. Stream Team dates back to ~2002 as a small group that got together to share data and methods informally.
      1. Highlighted successes of regional reference curve study and white-water whitepaper.
      2. Discussion on the origins of the white-water paper with the concept brought to the stream team by Chris Freiburger and agreed upon by consensus to become a stream team publication with sections written by various members. It was important that the paper was on a river topic and not a specific permit or project.
   3. Plan a 20-year celebration for 2022.
10. **Next Meeting Wednesday 28 April 2021**