

AFN March 10-12, 2020

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# Transitioning to a Modernized Approach of Asset Management



Evaluating the current work we do, evaluating what works and what doesn't, enhancing existing tools, to assist FN's in the approach to sustainable Asset Management.

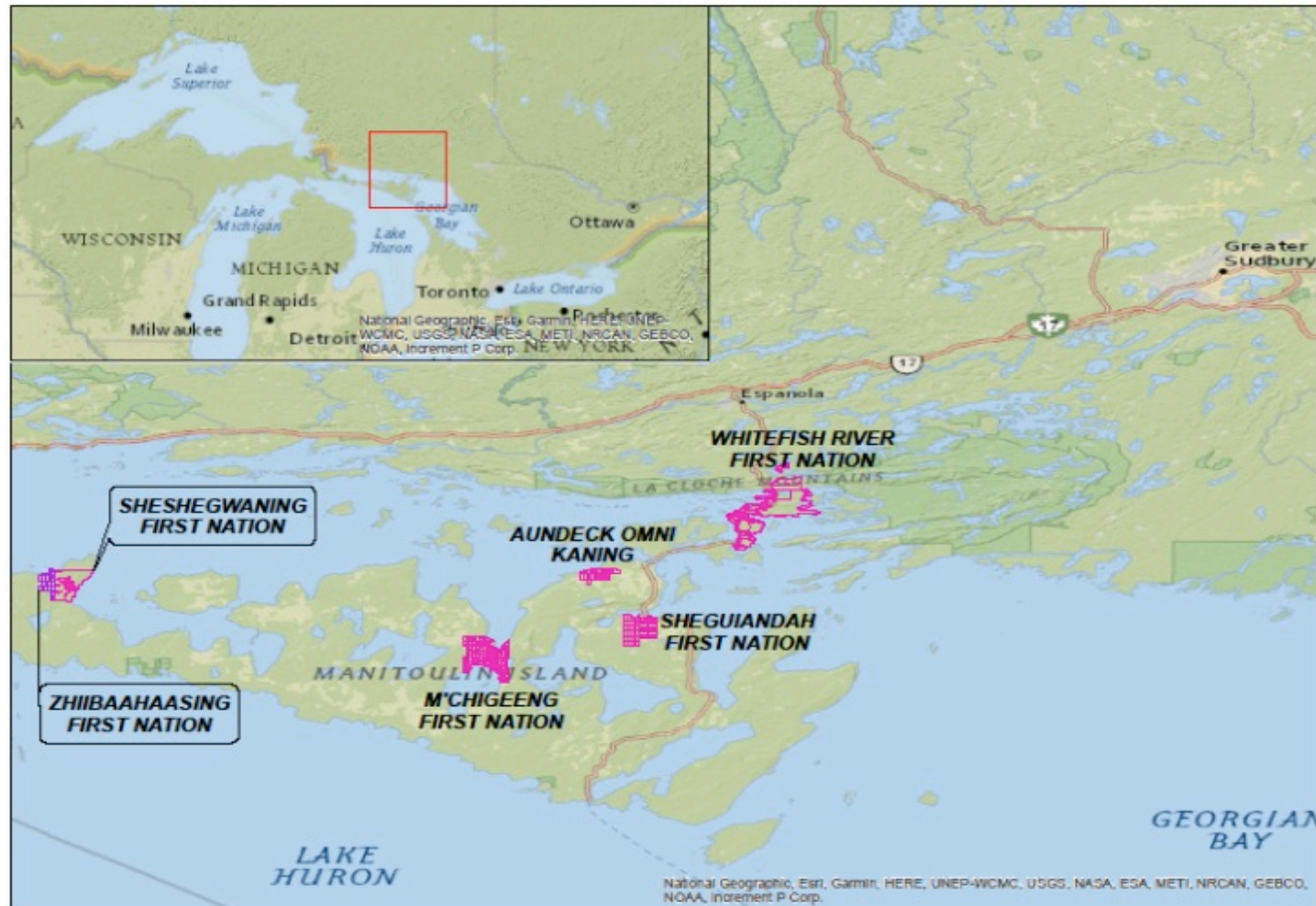


Small achievable pieces within the elements of an Asset Management Approach.



Ultimately Asset management plans will provide evidence-based needs for capital, operations, maintenance and investments to achieve and maintain desired levels of service for our First Nations communities.

# Service Area for UCCMM





# Youth Internship

- Challenge Identified
- Capacity Build
- 14 Youth achieve Water Quality Analyst (WQA) certification
- 25% women
- 3 yr. development with Water First
- 2 yr. implementation
- Full support from Employment and Social Development Canada (ESDC) via Anishinabek Nation
- All Achieved WQA
- Continued to Operator In Training (OIT), Level I and Level II
- All working in some capacity



# Building the Pieces

- Evaluate the environment
- Identifying the gaps/challenges
- Antiquated and flawed ISC O&M policy and allocation framework
- O&M cost comparison, Water and Wastewater Investment Requirements
- Capacity Build -Youth Internship
- Water and Wastewater HUB
- Plant Optimization
- Extended ACRS
- GIS – ArcMap, data collection equipment
- Building from existing work towards Asset Management



# ORO Services

- Our Hub is a Hybrid Overall Responsible Operator (ORO)
- Hub intent is to work with current FN operators
- Enhance daily operations
- Provide support
- Assistance
- Capacity
- Sustainability through hands on approach
- Remotely monitored systems
- Work to mirror O.Regs 170 and 128





## Contract Services

- Standard Operating Procedures (SOP)
- Standard Operating Guidelines (SOG)
- Tagging of Assets in plant for Maintenance Management Planning (MMP)
- Develop Facility Emergency Response Plan (FERP)
- Contingency Plans (CP)
- Implementation of above items through training sessions



# Remote Monitoring

- First Nation plants can be remotely monitored by tablet as a tool
- Operations allow for the collection of water data in each community through SCADA system
- Allows for trouble shooting to solve problems remotely or fix plant issues





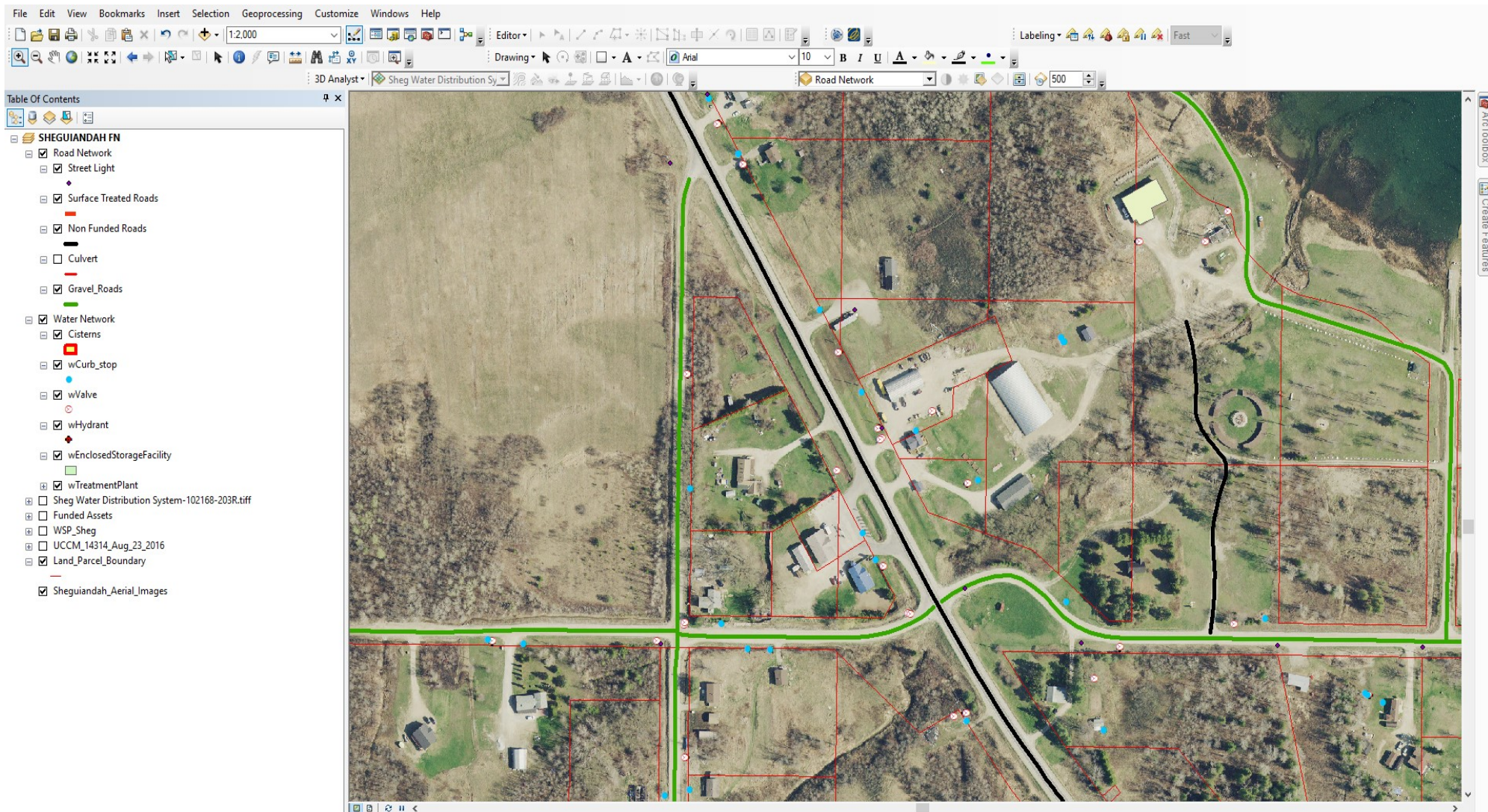
# Plant Optimization

- Plant Optimization completed by Engineering Firm
- Confirm design & process parameters
- Identify capital repairs
- Maintenance issues
- Current status of how each facility is operating to O.Reg's



# GIS Data Collection

- GIS Data Collection
- Data obtained by technician who collects all components of Water & Wastewater components by community
- Data is collected by GIS Equipment and Tablet
- Corrections in Field <25cm/1ft
- ESRI ArcMap
- MNR base mapping
- NRC-CLSR for property lines
- Collection of data will form basis of establishing an Asset Management Plan (AMP)







## Other Scope of Work(s)

- Video inspections:
- Intakes, Clear Wells & Low Lift Stations.
- Training for Operators, Confined Space, Work at Heights, Preparation for Operator Examination
- Operator Data Base for current FN Operators
- Remote trouble shooting through SCADA monitoring
- GIS Data collection of W&WW assets for AMP (Phase II)
- Capital Costing Data for compliance issues
- O&M Budgeting & Monitoring
- Track Training Subsidy (ISC)
- Leak Detection and Water Distribution Correlation.



## Extended ACRS

- Beneficial/realistic variation to old ACRS process
- Detailed asset component evaluation and costing
- Capital forecasting for asset components
- Defined report card on existing condition of assets (CIRC)
- Expenditures over a 35 yr. period



# O&M

- Routinely monitoring O&M impacts
- CFMP, FNIF, FNIIP, MMP, ICMS, CAIS, ACRS, CRM, NFR, GFR, API, National Allocations, Regional Allocations, Life Cycle Costing, PSAB
- O&M cost comparisons and analysis to municipalities
- Anishinabek Nation Water and Wastewater Investment Requirements
- Participate in O&M funding modelling, expert panels discussions
- O&M Budgeting & Monitoring
- ISC operations and maintenance policy and funding allocation framework is significantly flawed.



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# Hub Personnel

Lead Operator

Field Operations Operator

Hub Support

GIS Technician

Hub Coordinator

Project Manager

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