

## Pillar 5 – Objective 1

Create a sustainability plan anchored by Traverse City and including the surrounding region.

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### PROGRAM FRAMEWORK

**Program A: Create a regional and local sustainability plan, that builds on existing work and has tangible targets and performance dashboard**

#### Scope

- Leveraging the recently completed Resiliency Plan as a foundational framework
- Aligning regional partners (e.g., TCLP, MMPC, BPW, surrounding jurisdictions) around shared sustainability metrics
- Setting tangible targets for fleet electrification, waste diversion, stormwater performance, chloride reduction, materials reuse, and energy efficiency
- Expanding proven initiatives such as restaurant composting and winter salt reduction
- Integrating sustainability upgrades at the WWTP and WTP (e.g., solar & battery, membrane upgrades, aeration improvements)
- Developing a shared public-facing sustainability dashboard to track performance and accountability
- Utilizing existing environmental, asset, and operational data to drive decision-making
- Assess impacts on construction trades, supply chains, and long-term operating costs

#### Sequenced Timeline

##### **Near-Term (2026–2027)**

- Formally adopt and begin implementation of existing Resiliency Plan
- Convene regional partners to align sustainability metrics
- Establish baseline data and performance indicators
- Launch public-facing sustainability dashboard framework
- Continue implementation of:
  - Solar & Battery projects
  - Membrane and aeration upgrades
  - Chloride reduction strategies

- Fleet and equipment electrification

### **Mid-Term (2028)**

- Expand plan regionally with broader engagement
- Integrate sustainability metrics into capital planning and budgeting
- Expand composting and materials management programming
- Coordinate WTP solar and energy improvements with TCLP and BPW

### **Long-Term (2028–2031)**

- Institutionalize regional sustainability framework
- Update targets based on performance data
- Expand green infrastructure investments
- Position Traverse City as a statewide sustainability leader

### **Long-Term (2031+)**

- Maintain 10-year rolling underground utility plan
- Institutionalize lifecycle replacement funding

### **Funding Requirements + Potential Sources**

**Primarily staff time (planning and coordination phase)**

#### **Potential Additional Needs**

- Dedicated sustainability coordination capacity
- Consultant support for benchmarking and dashboard development
- Capital funding for electrification, renewable energy, and infrastructure upgrades
- Training for staff

#### **Potential Sources**

- General Fund (if contribution approved)
- Utility enterprise funds
- Federal and state infrastructure grants
- TIF (if eligible)
- TCLP coordination
- Regional cost-sharing

## **Staffing / Operational Constraints**

- Limited staff capacity for regional coordination and data management
- Need for additional sustainability or data-focused staff support
- Engineering and Utilities workload tied to major capital projects
- Technology department capacity for dashboard development

## **Primary Staff**

- City Management
- Engineering
- Department of Municipal Utilities
- Department of Public Services
- Technology
- Planning
- Finance

## **Commission Direction Needed - Needs Ben Review**

- Formally adopt and advance the Resiliency Plan as the foundation for a broader Sustainability Plan
- Affirm regional convening role for sustainability coordination
- Approve development of measurable targets and public performance dashboard
- Provide guidance on staffing needs for sustainability coordination
- Support continued capital investments aligned with sustainability goals

## **Program B: Research and apply best practice approaches from other leading communities**

### **Scope**

- Researching peer communities (e.g., Madison, WI) and model programs across Michigan
- Engaging statewide networks such as Michigan Green Communities, Catalyst Leadership Circle, Michigan Clean Cities, and Energy Navigators
- Applying best practices to capital projects, materials, fleet modernization, renewable energy, and emissions tracking
- Modernizing the City fleet through data-driven benchmarking, fuel evaluation (EV, renewable diesel), and development of a public emissions tracker
- Exploring policy and funding tools used by other communities (e.g., hotel tax models to support infrastructure and sustainability investments)

- Working with TCLP and internal departments to align sustainability upgrades with operational realities

### **Sequenced Timeline**

#### **Near-Term (2026)**

- Establish internal sustainability research framework (including TCLP–Garage collaboration)
- Identify peer communities and benchmark practices
- Begin fleet data collection and emissions baseline analysis
- Continue engagement in statewide sustainability networks
- Explore feasibility of hotel tax models and other funding tools

#### **Mid-Term (2027–2028)**

- Pilot fleet performance tracking tools and emissions dashboard
- Evaluate renewable diesel and low-carbon fuel options
- Adapt proven capital construction and materials best practices
- Develop policy proposals informed by research

#### **Long-Term (2028–2031)**

- Integrate best practices into regional sustainability plan with measurable targets
- Expand regional collaboration and policy alignment
- Refine fleet modernization and infrastructure strategies as technology evolves

### **Funding Requirement + Potential Resources**

**Primarily staff time for research and coordination.**

#### **Potential Additional Needs**

- Data analytics and dashboard development
- Limited consultant support for benchmarking and emissions accounting
- Capital investment (if fleet or infrastructure upgrades adopted)

#### **Potential Sources**

- General Fund (if contribution approved)
- Utility enterprise funds
- Federal/state sustainability and infrastructure grant exploration

- Potential lodging/hotel tax (if pursued legislatively)
- Regional cost-sharing
- TIF (if eligible)

### **Staffing / Operational Constraints**

- Staff capacity for benchmarking and interdepartmental coordination
- Data collection and analytics workload
- Garage and operations staff capacity during fleet modernization transition
- Legislative or policy development capacity

### **Primary Staff**

- City Management
- Engineering
- Department of Public Services
- Technology Department (data and dashboard)
- Finance
- Planning
- TCLP (external partner)

### **Commission Direction Needed**

- Affirm research-first approach to sustainability modernization
- Support development of fleet emissions tracking and benchmarking
- Provide guidance on exploring hotel/lodging tax mechanisms
- Support continued engagement in statewide sustainability networks
- Establish expectations for integrating best practices into regional sustainability plan

## **POLICY FRAMEWORK**

### **Policy A: Encourage businesses, tourism and local organizations to adapt to more sustainable practices**

#### **Scope**

- Implementing MS4-required public outreach focused on stormwater quality and pollution prevention
- Partnering with DTCA, Grand Traverse County, and regional stakeholders to coordinate sustainability initiatives
- Expanding downtown and tourism-focused composting programs
- Promoting energy reduction incentives through TCLP

- Encouraging participation in programs such as Adopt-a-Catch Basin, Adopt-a-Tree, and pollinator or rewilding initiatives
- Leading by example through sustainable municipal property management, fleet electrification, energy efficiency upgrades, and demonstration projects
- Supporting EV charging expansion, micro-mobility options, transit use, and bike-friendly certification among businesses
- Continuing to convene regional sustainability-focused groups

### **Sequenced Timeline**

#### **Near-Term (2026)**

- Launch MS4 public outreach campaign
- Expand downtown composting participation
- Work with TCLP on strategy for electrification of City fleet
- Promote TCLP energy incentive programs
- Initiate Adopt-a programs and sustainability outreach tools
- Continue municipal sustainability demonstration projects

#### **Mid-Term (2027–2028)**

- Expand composting to tourism-related businesses
- Increase EV charging and micro-mobility partnerships
- Encourage Bike-Friendly business participation
- Broaden regional sustainability convening efforts

#### **Long-Term (Ongoing)**

- Institutionalize business sustainability partnerships
- Track measurable reductions in waste and emissions
- Expand regional coordination and shared sustainability metrics

### **Funding Requirement + Potential Sources**

**Primarily staff time for outreach and coordination.**

#### **Potential Additional Needs**

- Public education materials and campaign support
- Limited consultant support for outreach programs
- Infrastructure investments (EV charging, compost expansion)

#### **Potential Sources**

- Stormwater Utility funds
- General Fund (if contribution approved)
- Grant exploration (state/federal sustainability programs)
- Regional cost-sharing
- TIF (if eligible)

### **Staffing / Operational Constraints**

- Staff capacity for outreach and program coordination
- Engineering and DPS workload
- Communications capacity for outreach and educational collateral
- Ongoing coordination demands with regional partners

### **Primary Staff**

- City Management
- Engineering
- Department of Public Services
- Planning
- Communications & Strategic Initiatives
- Technology
- TCLP (external partner)

### **Commission Direction Needed**

- Affirm City's leadership-by-example approach
- Provide guidance on composting and EV infrastructure priorities
- Encourage regional convening on business sustainability initiatives
- Establish expectations for measurable performance tracking

### **Policy B: Traverse City to work with community partners to identify and adopt innovative measures and policy**

#### **Scope**

- Advancing MS4 compliance, stormwater performance, and flood preparedness
- Continuing salt reduction and water-use efficiency efforts
- Improving fleet efficiency, materials reuse, and waste reduction practices
- Leveraging the existing Resiliency Plan (developed with MEDC) as a framework for climate and economic resiliency
- Aligning innovation efforts with housing, childcare, technology, and workforce needs tied to economic resiliency

#### **Sequenced Timeline**

### **Near-Term (2026–2027)**

- Utilize Resiliency Plan framework to prioritize innovative initiatives
- Continue MS4, salt reduction, and water-use efficiency efforts
- Identify scalable pilot measures with community partners

### **Mid-Term (2027–2028)**

- Adopt selected innovative measures into operations
- Expand collaboration with regional partners on climate and economic resilience initiatives

### **Long-Term (Ongoing)**

- Integrate successful innovations into broader regional sustainability plan
- Monitor and refine based on measurable outcomes

### **Funding Requirements + Potential Sources**

Primarily staff time.

#### **Potential Additional Needs**

- Modest pilot funding
- Technical support or consulting (if required)
- Capital funding for scalable operational improvements

#### **Potential Sources**

- General Fund (if contribution approved)
- Utility enterprise funds
- Regional cost-sharing

### **Staffing / Operational Constraints**

- Staff capacity for cross-department coordination
- Engineering and operations workload
- Data tracking and performance monitoring demands

### **Primary Staff**

- City Management
- Engineering
- Department of Public Services
- Department of Municipal Utilities
- Planning
- Finance
- Technology

### **Commission Direction Needed**

- Affirm Resiliency Plan as guiding framework
- Support continued operational innovation (MS4, salt reduction, water efficiency)
- Provide guidance on prioritizing pilot initiatives
- Establish expectations for measurable performance reporting

## **Pillar 5 – Objective 2**

**Implement innovative initiatives that take sustainability to the next level.**

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### **PROGRAM FRAMEWORK**

#### **Program A: Pilot electrification of houses as a demonstration project**

##### **Scope**

- Lead by example in building electrification and decarbonization
- Use the project to train and prepare the local trades workforce in partnership with Career Tech, NMC, and TCLP
- Evaluate policy implications and building code requirements before broader adoption
- Assess impacts on construction trades, supply chains, and long-term operating costs
- Explore integration into future City capital projects (e.g., new City Hall or major facility renovation)
- Study peer models such as Ann Arbor’s residential electrification initiatives and develop model for Traverse City

##### **Sequenced Timeline**

###### **Near-Term (2026–2027)**

- Conduct feasibility assessment and policy review

- Engage TCLP and workforce training partners
- Identify candidate municipal facility for pilot
- Evaluate impacts on trades and construction market

### **Mid-Term (2028–2031)**

- Integrate electrification into design and construction of selected municipal project
- Document lessons learned and workforce training outcomes
- Evaluate replication potential for private-sector adoption
- Develop model for residential electrification initiatives

### **Funding Requirements + Potential Sources**

**Costs TBD based on facility selected and scope of electrification.**

#### **Potential Sources**

- Capital project funding (facility construction or renovation budget)
- Utility incentives (TCLP)
- State and federal clean energy grant exploration
- Potential bond financing (if tied to major facility project)

### **Staffing / Operational Constraints**

- Engineering and Facilities project management capacity
- Interdepartmental coordination demands
- Workforce training coordination
- Capital planning bandwidth

### **Primary Staff**

- City Management
- Engineering
- Facilities
- Department of Municipal Utilities
- Finance
- TCLP (external partner)
- Workforce education partners (Career Tech, NMC)

### **Commission Direction Needed**

- Provide direction residential electrification initiative
- Affirm municipal electrification pilot approach
- Provide guidance on integration with future City facility projects
- Support workforce training partnership framework

- Establish expectations for cost analysis and reporting prior to final design decisions

## **Program B: Collaborate with local utility operators to help demonstrate and educate the public further on best practices**

### **Scope**

- Coordinating joint education efforts on energy efficiency, electrification, water conservation, and fleet modernization
- Showcasing City-owned demonstration assets (electric fleet vehicles, solar & battery systems, innovative WWTP/WTP projects)
- Continuing public plant tours (WTP/WWTP) with focus on innovative infrastructure
- Exploring water-saving and energy incentive programs in partnership with TCLP
- Re-evaluating biogas/CHP opportunities at the WWTP in alignment with TCLP policies
- Hosting an annual City Sustainability Open House with educational stations and hands-on demonstrations, and family friendly activities
- Expanding demonstrations regionally as models prove successful

### **Sequenced Timeline**

#### **Near-Term (2026)**

- Establish collaboration structure with TCLP and internal departments
- Identify demonstration priorities (fleet, energy, water, CHP feasibility)
- Continue WTP/WWTP tours and public education

#### **Mid-Term (2027)**

- Launch public demonstrations and expanded education efforts
- Evaluate renewable energy and CHP pathway options
- Expand water-saving and energy rebate outreach
- Plan City Open House (spring or fall target)

#### **Long-Term (3–5 Years | 2028–2031)**

- Refine and expand demonstration projects regionally
- Institutionalize annual open house event
- Implement scalable solutions (e.g., CHP, fleet modernization)

### **Funding Requirements + Potential Sources**

**Primarily staff time for coordination and outreach.**

### **Potential Additional Needs**

- Demonstration equipment or pilot assets
- Communication and educational materials
- Capital investment for CHP or fleet upgrades
- Incentive coordination (TCLP rebates/On-bill finance)

### **Potential Sources**

- Utility enterprise funds (WWTP/WTP)
- TCLP rebates and incentives
- Federal/state energy grant exploration
- General Fund (if contribution approved)

### **Staffing / Operational Constraints**

- Engineering, Planning, and utilities project workload
- Garage/fleet operational demands
- Communications capacity for public education efforts and event planning
- Coordination workload across departments and partners

### **Primary Staff**

- City Management
- Planning
- Engineering
- Department of Municipal Utilities
- Communications & Strategic Initiatives
- TCLP (external partner)
- Additional Partners

### **Commission Direction Needed**

- Affirm joint demonstration and education approach with TCLP
- Provide guidance on CHP/biogas reconsideration pathway
- Support establishment of annual City Open House
- Confirm expectations for public reporting of demonstration outcomes
- Provide direction on capital investment alignment with demonstration goals

### **Program C: Participate in emerging projects that explore approaches like industrial symbiosis and circular economy**

### **Scope**

- Continuing dialogue with expert communities (e.g., Vancouver, WA) and consultants experienced in industrial symbiosis
- Assessing feasibility of regional industrial symbiosis strategies (aligning one industry's waste stream with another's input)
- Collaborating with Traverse Connect and regional partners to identify strategic business opportunities
- Expanding circular practices already underway (food waste composting, leaf & brush reuse, wood chip utilization, material reuse in parks projects)
- Evaluating innovative renewable energy approaches (e.g., in-stream turbines where feasible)
- Reviewing internal circular economy practices (e.g., technology reuse policies, equipment lifecycle management)
- Integrating circular principles into community events and public education

### **Sequenced Timeline**

#### **Near-Term (2026-2027)**

- Continue symbiosis discussions with consultant and peer communities
- Evaluate internal circular practices (technology reuse, material reuse)
- Explore legal considerations for equipment donation/reuse
- Expand composting and material diversion programming

#### **Mid-Term (2028-2031)**

- Identify potential industry input/output mapping
- Partner with Traverse Connect to assess strategic industry attraction opportunities
- Pilot targeted circular economy initiatives

#### **Long-Term (2032+)**

- Consider supporting the implementation industrial symbiosis strategies if feasible
- Expand renewable energy integration and circular infrastructure investments

### **Funding Requirements + Potential Sources**

**Primarily exploratory at this stage.**

#### **Potential Additional Needs**

- Dedicated sustainability or circular economy staff
- Consultant feasibility studies
- Incentive packages for strategic industry alignment
- Capital funding for renewable energy or reuse infrastructure

## **Potential Sources**

- General Fund (if contribution approved)
- Federal/state sustainability and innovation grant exploration
- Regional economic development partnerships
- Utility or enterprise funds (where applicable)

## **Staffing / Operational Constraints**

- Significant staff capacity required for systems-level coordination
- Engineering and Planning sustainability workload
- Legal review for asset reuse policies
- Unknown long-term resource commitments
- Potential multi-year regional coordination effort

## **Primary Staff**

- City Management
- Planning
- Engineering
- Department of Public Services
- Technology
- Finance
- Parks & Recreation
- Traverse Connect (external partner)

## **Commission Direction Needed**

- Affirm interest in exploring industrial symbiosis as a long-term strategy
- Provide direction on pursuing feasibility study
- Clarify appetite for dedicating staff resources to circular economy efforts
- Establish expectations for reporting on exploratory progress
- Provide guidance on internal asset reuse policy exploration

## **Program D: Implement the West Bay Lakeshore Stabilization project as an excellent demonstration of an innovative sustainability project**

### **Scope**

- Utilizing Brown Bridge Trust Fund (BBTF) dollars identified in the Capital Improvement Plan
- Incorporating natural flood control methods, resilient landscaping, and thoughtfully designed public access
- Integrating interpretive signage to educate the public on sustainable shoreline practices
- Leveraging asset management data on high-water impacts

- Partnering with consultants and local subject matter experts for design and phased implementation

### **Sequenced Timeline**

#### **Near-Term (2026-2027)**

- Convene internal leadership team to define scope
- Secure consultant for design and phasing
- Identify funding gap and pursue opportunities
- Begin design

#### **Mid-Term (2028-2029)**

- Continuing design and funding development

#### **Long-Term (2030+)**

- Begin construction
- Install interpretive and educational components
- Evaluate performance and public engagement outcomes

### **Funding Requirements + Potential Sources**

- Brown Bridge Trust Fund allocation
- Consultant design fees
- Construction costs
- Staff project management time
- Additional grant funding to close funding gap

#### **Potential Sources**

- Brown Bridge Trust Fund
- TIF (if eligible)
- State and federal coastal resilience grant exploration
- Philanthropic or regional partnerships

### **Staffing / Operational Constraints**

- Engineering and Parks project workload
- Consultant management capacity
- Funding availability for non-programmed elements
- Project may require additional staff resources to expedite

### **Primary Staff**

- Parks & Recreation
- Planning (Riparian Buffer Committee)
- Engineering
- Department of Public Services
- Finance

### **Commission Direction Needed**

- Provide guidance on leveraging additional funding beyond BBTF
  - Support consultant engagement and phased implementation approach
- Establish expectations for public education and interpretive elements

## **POLICY FRAMEWORK**

### **Policy A: Explore ways to protect our fresh-water resources, including riparian buffers and storm water management, on our local waterways and river**

#### **Scope**

- Finalizing and implementing the Riparian Buffer Ordinance (planned adoption 2026)
- Advancing MS4 compliance and integrating green infrastructure into street and corridor reconstruction projects (Monroe, Boardman/Washington/State/Cass, 7th, 14th)
- Updating the Stormwater Master Plan and incorporating additional water-quality improvements
- Expanding erosion control inspections to reduce pollutant loading
- Enhancing stormwater GIS inventory and public-facing riparian buffer mapping tools
- Integrating shoreline stabilization and green infrastructure into Lower Boardman Riverwalk and West Bay projects
- Partnering with The Watershed Center and regional stakeholders
- Pursuing shoreline land acquisition and coastal wetland restoration at M-72/M-22

#### **Sequenced Timeline**

##### **Near-Term (2026-2027)**

- Adopt and implement Riparian Buffer Ordinance
- Continue implementing MS4 Permit requirements
- Initiate Stormwater Master Plan update
- Launch public-facing riparian buffer map
- Pursue MDNRTF shoreline acquisition grant exploration

##### **Mid-Term (2028)**

- Explore stormwater GIS inventory and assessment (RFP process)
- Integrate green infrastructure into major reconstruction projects
- Add seasonal erosion/stormwater inspection position (if approved)
- Begin coastal wetland restoration planning

### **Long-Term (2028-2031)**

- Implement shoreline stabilization and wetland restoration
- Expand green infrastructure improvements per updated Master Plan
- Monitor performance metrics and pollutant reduction outcomes

### **Funding Requirements + Potential Sources**

#### **Existing Resources**

- MS4 program funding
- Capital Improvement Program allocations

#### **Additional Needs**

- Stormwater GIS assessment (\$80,000–\$200,000)
- Seasonal inspection staff
- Shoreline land acquisition (~\$4M; \$1M local match)
- Shoreline/wetland development (~\$1M, design-dependent)
- Consultant support for design and monitoring

#### **Potential Sources**

- Stormwater Utility Fund
- MDNRTF grant exploration
- Brownfield funding (watermain integration)
- Federal/state resilience and coastal grant exploration
- General Fund (match requirements - if contribution approved)

### **Staffing / Operational Constraints**

- Engineering and Parks project workload
- Consultant management capacity
- Funding availability for non-programmed elements
- Project may require additional staff resources to expedite

### **Primary Staff**

- Engineering

- Parks & Recreation
- Department of Public Services
- Department of Municipal Utilities
- Planning
- Technology
- Finance

### **Commission Direction Needed**

- Finalize and adopt Riparian Buffer Ordinance
- Support Stormwater Master Plan update
- Approve pursuit of shoreline acquisition and restoration grant exploration
- Provide guidance on funding match commitments
- Approve additional inspection staffing (if desired)