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# MEMORANDUM

**Policy Title:** Strategic Asset Management Plan

**Date Submitted:** 9 November 2020

**Purpose:** The purpose of this policy is to outline principles, objectives, roles and responsibilities, and key aspects of the Public Works Asset Management Plan. By understanding plan principles and objectives, management and staff will better understand the asset management program and how to set about improving asset inventory, accountability, maintenance, and surplus or replacement activities.

**Effective Date:** Immediately

**Vision:** The Director of Public Works seeks to improve the departments' knowledge and ability to visualize what we own (or should own); and, in turn, develop strategies that: maximize the life-cycle of assets; or, replenish depleting stocks by means of accurate accounting and decision-making.

**Scope:** The asset management plan outlined below is comprehensive to all assets managed by the Public Works department, to include: physical infrastructure systems, capital items, training aids, non-issued uniform/PPE stocks, software, and support equipment (e.g. small tools, IT).

**Major Operating Principle:** The department should be equipped and have certain items of inventory on hand in order to conduct its daily mission of maintaining public parks, highways, and facilities. These operational and material requirements influence what we should own and have available. We should not seek to own more than we need to meet these operational requirements. We should seek to own equipment and tools that meet those requirements but do not exceed requirements. Frequent analysis of on hand inventory use should be conducted with the aim of balancing operational requirements with budgets and procurement strategies.

**Risk.** Another critical factor in understanding the major components of policy principles and objectives is the concept of risk. In short, risk is a leader's tolerance for uncertainty or failure in light of maximizing effectiveness and efficiency (e.g. cost effectiveness). With respect to equipment and material shortfalls the Director is willing to assume increased risk, albeit mitigated by: improved maintenance, leadership oversight; individual ownership (or sense of ownership) of equipment; and, finding and using what we have on-hand or in inventory before procuring something new.

**Supporting Plans, Procedures and Regulations:** Additional information on asset management principles, objectives, and processes may be found by referencing the below documents.

- Facilities Master Plans
- Campus Master Plan (TBP)
- Facilities / Building Assessments
- Bi-Annual Bridge Assessments
- Bi-Annual Highway Assessment & Supporting Highway Maintenance Strategy
- Parking Lot Plan (TBP)

- Administrative Procedure 2-104 *County Fleet Maintenance*
- Administrative Procedure 2-105 *Facilities Master Plan Processes and Standards*
- Administrative Procedure 2-111 *County Access Control*
- Administrative Procedure 2-112 *Parks, Grounds and Green Space Management*
- Administrative Procedure 2-602 *Utility Accommodation*
- Walworth County Ordinances, Chapter 16 *Public Property* & Chapter 42 *Parks and Recreation*.
- Wisconsin Administrative Code NR208 Compliance Maintenance Annual Report (CMAR)
- Wisconsin Highway Maintenance Manual (HMM)
- Wisconsin Highway Infrastructure System (HSI)
- Department of Agriculture, Trade and Consumer Protection (ATCP) Regulation 93.510(2) Leak Detection Requirements
- ATCP Inventory System: [https://mydatcp.wi.gov/Home/ServiceDetails/4a171523-04c7-e611-80f6-0050568c4f26?Key=Services\\_Group](https://mydatcp.wi.gov/Home/ServiceDetails/4a171523-04c7-e611-80f6-0050568c4f26?Key=Services_Group)

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**Principles & Objectives:** Asset Management involves many aspects and concerns, to include: inventory, maintenance, replacement, procurement, planning and development of quantifiable data for analysis. Public Works Asset Management policy principles include:

<b>Principle 1.</b> Our most critical asset is the men and women of Public Works.	
<ul style="list-style-type: none"> <li>○ Objective 1: Supervise personnel safety and manage personnel requirements daily. Act when required.</li> <li>○ Objective 2: Establish an accident investigation policy or procedure that identifies and mitigates root causes.</li> <li>○ Objective 3: Ensure all employees are properly trained on equipment prior to use.</li> <li>○ Objective 4: Hold people accountable to a job-related standard.</li> <li>○ Objective 5: Retain quality assets; invest in people.</li> </ul>	<p>P: All</p> <p>P: AM/OA S: Flt Foreman</p>
<b>Principle 2.</b> All physical infrastructure systems, capital items, training aids, non-issued uniform/PPE stocks, and support equipment (e.g. small tools) shall be inventoried and inspected annually NLT December.	
<ul style="list-style-type: none"> <li>○ Objective 1: Newly installed or constructed infrastructure will be added to the asset inventory within 2 months of conveyance and acceptance by the organization.</li> <li>○ Objective 2: Capital assets will be inspected, inventoried, monitored, and maintained at the lowest level possible in the organization.</li> <li>○ Objective 3: Capital assets will be built into AssetWorks with condition reports, item details, and maintenance schedules, when applicable.</li> <li>○ Objective 4: Maximize use of technology for inventory management.</li> <li>○ Objective 5: Annually sign off on County inventory Form 1-410-C <i>Capital Asset Inventory</i>.</li> </ul> <p>NOTE: All maintenance hours on items will be document for labor hours, materials, an actions taken.</p>	<p>P: Finance (PW) S: AM/OA (Oversight)</p> <p>P: AM/OA S: Finance (PW)</p> <p>P: Supervisors S: AM/OA (Sets up Hand-Receipt Process)</p> <p>P: AM/OA S: Supervisors</p>
<b>Principle 3.</b> Physical infrastructure (transportation) will be supported by available engineering data to manage inventory and condition reports.	
<ul style="list-style-type: none"> <li>○ Objective 1: Identify and define what we own...</li> <li>○ Objective 2: Initiate collection and database develop of Parks, Grounds, Roads, and other major capital items site survey data.</li> <li>○ Objective 3: Buildings, roads, and parking lots should have on-hand hard and soft copy design details in an engineer record management system.</li> <li>○ Objective 4: Ultimately, data should be placed in the Geographic Information System (GIS) or similar system, e.g. HSI/WISLR.</li> <li>○ Objective 5: Develop culvert inventory, conduct 20% annual condition and inventory inspection (5 year rotation).</li> </ul>	<p>P: Engineers S: Project Mgrs</p>
<b>Principle 4.</b> All equipment will be inspected prior to use; to include training aids.	
<ul style="list-style-type: none"> <li>○ Objective 1: Equipment is used in a safe and effective manner.</li> <li>○ Objective 2: Personnel using equipment report and document deficiencies.</li> <li>○ Objective 3: Maintenance personnel have opportunity to repair equipment prior to procurement of replacement items.</li> </ul>	<p>P: AM/OA S: Safety Compliance Officer</p>

<b>Principle 5.</b> All uniforms/PPE will be inspected prior to issuance.	
<ul style="list-style-type: none"> <li>○ Objective 1: Individual uniform items are recorded on hand-receipts.</li> <li>○ Objective 2: Stockage levels are updated in system.</li> <li>○ Objective 3: Individuals are provided safe &amp; useable equipment.</li> <li>○ Objective 4: Maintain minimal stockage on hand.</li> <li>○ Objective 5: Publish and post-PPE and Safety information in a high traffic area.</li> </ul>	<p>P: Supervisor – Hwy (Spt) / Fac. Foreman S: AM/OA (Oversight)</p>
<b>Principle 6.</b> All physical infrastructure will be covered by a Master Facilities Plan or other strategic documents which outline sustainment and replacement windows.	
<ul style="list-style-type: none"> <li>○ Objective 1: Document long-term replacement or repair costs and strategies.</li> <li>○ Objective 2: Input maintenance schedules into AssetWorks to inform critical repair, replacement, and inspection windows.</li> <li>○ Objective 3: Develop physical infrastructure and equipment inspection schedules.</li> <li>○ Objective 4: Associate total costs of repairs of vehicles and equipment (asset-based) in AssetWorks.</li> <li>○ Objective 5: Capture wastewater system in GIS and PMs in Assetworks.</li> <li>○ Objective 6: Data in AssetWorks and other IT systems is analyzed annually, and, provides meaningful reports by which management can update strategic plans with influence upon CIP and procurements.</li> </ul>	<p>P: Engineers S: Deputies</p> <p>P: Engineers S: Facilities</p> <p>P: AM/OA S: Deputies</p>
<b>Principle 7.</b> Minimize total life-cycle cost of assets by means of proper maintenance.	
<ul style="list-style-type: none"> <li>○ Objective 1: Proactively identify risk levels based on assets criticality to operations; empowering risk management at the lowest level.</li> <li>○ Objective 2: Maximize the life-cycle of assets based on ability to maintain or repair item, find parts, and other relevant factors.</li> </ul>	<p>P: Fleet Foreman S: Deputies</p> <p>P: Fleet S: AM/OA</p>
<b>Principle 8.</b> Management objectives or strategies shall be established for all physical infrastructure, capital items, and support equipment that costs more than \$5000 to replace or repair.	
<ul style="list-style-type: none"> <li>○ Objective 1: Document all Public Works fleet equipment on the 10-Year [Highway] Equipment Plan.</li> <li>○ Objective 2: Identify condition assets on equipment reports.</li> <li>○ Objective 3: Develop a 10-Year Facility Management Plan based on recent facilities assessment reports.</li> <li>○ Objective 4: Develop 5-Year Parks Management Plan(s) for each park.</li> <li>○ Objective 5: Develop an inventory for county turf and prairies.</li> <li>○ Objective 6: Department will consider total cost of ownership prior to procurement of capital items.</li> </ul>	<p>P: Deputies S: AM/OA</p> <p>P: Fleet Foreman P: Engineer S: PMs P: Asset Mgr S: Parks Foreman</p>
<b>Principle 9.</b> Resources associated with asset management shall be fully utilized in a cost-effective manner. All costs associated with maintenance should be tracked against the asset or facility.	
<ul style="list-style-type: none"> <li>○ Objective 1: Document all maintenance and operational use of equipment.</li> <li>○ Objective 2: Analyze annual utilization and maintenance data published by finance. Reports should inform and influence 10-Year equipment plan.</li> <li>○ Objective 3: Develop a means to assess maintenance and costs associated with MEP systems in facilities.</li> </ul>	<p>P: Operator S: Supervisors</p> <p>P: AM/OA S: Directors</p> <p>P: Asset Mgr(s) S: PMs</p>

<b>Principle 10.</b> Asset management activities shall assess social and environmental goals.	
<ul style="list-style-type: none"> <li>○ Objective 1: Continue fleet transition from salt to salt/brine or mixed-fleet distribution capabilities.</li> <li>○ Objective 2: Seek opportunities to put small load infrastructure on solar.</li> <li>○ Objective 3: Improve road maintenance operations by considering environmental and social influences, e.g. habitat preservation.</li> <li>○ Objective 4: Consider alternative fleet procurements to improve environmental impacts.</li> </ul>	P: Deputies S: Director P: Engineers S: PMs P: Deputies S: Supervisors
<b>Principle 11.</b> All capital vehicles will be assessed and their utilization documented for use, repairs, costs, and condition.	
<ul style="list-style-type: none"> <li>○ Objective 1: Develop condition assessments to inform replacement timings.</li> <li>○ Objective 2: Develop inspection preventive maintenance checklists in AssetWorks.</li> </ul>	P: Fleet Foreman S: Asset Mgr(s)
<b>Principle 12.</b> All parks will have a 5-year sustainment and improvement plan. Plans will be reviewed bi-annually to include inventory (trees, turf, and amenities “man-made structures”).	
<ul style="list-style-type: none"> <li>○ Objective 1: Identify and capture potential costs of park management.</li> <li>○ Objective 2: Develop strategies for most affordable maintenance strategy.</li> <li>○ Objective 3: Maintain intergovernmental, interdepartmental, and inter-communal engagement with likeminded and interested community partners.</li> </ul>	P: Asset Mgr S: Park Foreman
<b>Principle 13.</b> All park capital assets will be documented on capital asset inventory or a similar bi-annual inventory (P12 above). A condition report will be in AssetWorks.	
<ul style="list-style-type: none"> <li>○ Objective 1: Improve park maintenance by capturing routine requirements in automation systems.</li> </ul>	P: Asset Mgr S: Park Foreman
<b>Principle 14.</b> All County owned utility system as-built documents should include a unique identifier number for point of orientation and termination, and for other physical features. Use of GIS is encouraged, meanwhile, capture assets in AssetWorks for maintenance strategy.	
<ul style="list-style-type: none"> <li>○ Objective 1: Improve department inventory documentation and utility maintenance.</li> <li>○ Objective 2: Develop preventive maintenance checklists for utility assets.</li> </ul>	P: Engineers S: Project Mgrs P: Fac. Foreman
<b>Principle 15.</b> A biennial bridge inventory and condition assessment will be used to inform future bridge maintenance and repair plans.	
<ul style="list-style-type: none"> <li>○ Objective 1: Document bridge conditions, maintenance history, and design details in Wisconsin’s Highway Structures Information system and, potentially, GIS.</li> <li>○ Objective 2: Develop annual bridge maintenance &amp; repair strategy to complement State efforts in the County.</li> <li>○ Objective 3: Maintain bridge sufficiency ratings outlined in Chapter 16 of Walworth County Ordinances.</li> </ul>	P: Cty Engineer  P: Cty Engineer S: DCHC P: Cty Engineer S: DCHC

<b>Principle 16.</b> A biennial highway inventory and condition assessment will be used to inform future road maintenance and repair plans. Documenting road conditions, maintenance history, and design details in Wisconsin Information System for Local Roads (WISLR) and other automation systems is encouraged.	
○ Objective 1: Document road or highway conditions, maintenance history, and design details in WISLR.	P: DCHC
○ Objective 2: Develop annual road or highway maintenance & repair strategy to complete state efforts in the County.	P: DCHC S: Cty Engineer
○ Objective 3: Maintain highway sufficiency ratings outlined in Chapter 16 of Walworth County Ordinances.	P: DCHC S: Cty Engineer
<b>Principle 17.</b> All training aids, support equipment (tools), select capital equipment, will be hand-receipted down to individual level.	
○ Objective 1: All unassigned inventory will be centrally monitored, controlled, and inventoried by either crew level leadership, section leadership, or the Asset Manager(s) NLT December 2022.	P: Asset Mgr(s) S: Super – Hwy Operations (Spt)
○ Objective 2: All items of inventory outlined in Objective 1 are built into Asset Works	
○ Objective 3: Annual County inventory spreadsheets and methodologies are streamlined into a singular report.	P: AM/OA
<b>Principle 18.</b> Inventory and conduct condition assessment on tools and equipment.	
○ Objective 1: As part of annual capital inventory, equipment will be assessed for functionality (condition). All non-functional or unsafe equipment will be added to surplus and / or disposal lists, respectively.	P: AM/OA S: Supervisors
○ Objective 2: Individual ownership of equipment will be reviewed and updated during annual capital inventory.	

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**Summary Roles and Responsibilities:** Department staff will:

Division Director	Maintain Plans and Objectives. Supervise inventory, maintenance, documentation (database updates), and accountability activities.
Section Lead (Supervisor/Foreman)	Hand-Receipt equipment assigned to section. Monitor and track equipment maintenance, inspections, and accountability. Report equipment/material deficiencies to Division Directors.
Fleet Foreman	Supervise shop procurement and maintenance operations. Ensure condition reports are loaded into AssetWorks for all equipment / fleet inspections.
Facility Foreman	Order facilities-related materials and support equipment (e.g. small tools). Ensure procurements are necessary. Ensure condition reports of inspected items are loaded into AssetWorks.
Superintendent – Hwy Operations (Support)	Supervise, monitor, and develop Highway procurement of capital items, construction materials, and support equipment. Ensure procurements are necessary. Ensure all Asset Condition (Route Reconnaissance) reports are loaded into AssetWorks.
Senior Maintenance Technician/Assistance Superintendent – Highway	Hand-Receipt equipment assigned to primary facilities (SMT) or Highway Crew. Inspect and maintain assigned equipment. Perform and supervise inventory activities. Advise leadership on equipment faults. Upload equipment maintenance and condition reports into AssetWorks.
Mechanic/Highway Maint. Worker/ Maintenance Technician	Hand-Receipt equipment assigned. Inspect and maintain assigned equipment. Inventory equipment, as directed. Advise leadership on equipment faults.
Fleet Inventory Specialist	Hand-receipt support equipment in the shop. Order fleet parts and equipment. Maintain automation systems. Ensure procurements are necessary. Perform annual parts, fuel, tank, and fluid inventory systems.
Asset Manager	Manages uniform/PPE items, training aids and devices, and software. Oversees Asset Management policy compliance, hand-receipt processes and updates to automation systems. Maintain 10-YR equipment plan. Supervise data entry and generate management reports for annual budgeting processes.
Engineers	Manage and monitor bridge, highway, and wastewater management database information, reporting/inventory processes, and plan updates, when applicable. Convert reports (data) into contract or internal maintenance recommendations.

**Critical Resources:** In order to properly manage assets the department primarily relies on the AssetWorks software suite. Other software for asset management includes: KeyValet, Keystone, Munis, HIS, WISLR, GIS and other software systems.

**Road Map (Major Objectives):** The following is a guide for program development of inventory management processes using hand receipts.

<b>CATEGORY</b>	<b>JAN-JUN 2021</b>	<b>JUL-DEC 2021</b>	<b>JAN-JUN 2022</b>	<b>JUL-DEC 2022</b>	<b>JAN-JUN 2023</b>
<b>Capital; Physical Infrastructure</b>	Identify Section Ownership; Develop Software Accommodation	Develop Section Hand Receipts; Inventory and Sign	Identify Facility or Crew Ownership	Develop Crew Hand Receipts; Inventory and Sign.	Develop Individual HR; Inventory and Sign.
<b>Uniforms (Stock); Training Aids</b>	Consolidate location for inventory	Implement inventory control			
<b>Support Equipment</b>	Identify Section Ownership; Develop Software Accommodation	Develop Section Hand Receipts; Inventory and Sign	Identify Facility or Crew Ownership	Develop Crew Hand Receipts; Inventory and Sign.	Develop Individual HR; Inventory and Sign.

**Communication and Process Flow:** For implementation success personnel need to frequently communicate and leadership must set and observed milestones. Therefore, the Asset Management Plan will be supported by a quarterly working group led by the Asset Manager(s). Key participants in this process will include (list below is not inclusive):

**Asset Management Working Group – Road Map Support.**

<b>TITLE</b>	<b>ROLE</b>
Asset Manager (AM)	Provides overall leadership to the group in order to implement all aspects of the plan.
Asset Manager / Operations Analyst (AM/OA)	Provide oversight hand receipt processes; management milestone management; supervises software/IT accommodations for future program analysis (reports) and efficiency; lead hand receipt development and asset with data management/development.
Superintendent – Highway Operations (Support)	Assist AM/OA with hand receipt development, Asset Management upload into AssetWorks;
Fleet Foreman	Develop, sustain and provide equipment condition reports, as requested.
Administrative Secretary / Maintenance Technician	Assist AM/OA with hand receipt development, Asset Management upload into AssetWorks;
Fleet Inventory Specialist	Assist AM/OA with hand receipt development, Asset Management upload into AssetWorks;



**Policies Supporting Inventory, Condition Assessment, and Inspection Processes**

Asset	Guiding Plans & Policy <sup>a</sup>	Inventory System	Condition Reporting System	Inventory Frequency
Facilities 1. Occupied 2. Unoccupied	AP 2-108 Public Property Maintenance;	AssetWorks	AssetWorks	Varies by Asset – See AP 2-108.
Equipment / Fleet 1. Vehicles 2. Tanks 3. Tools & Equip. 4. Parts 5. Fuels & Liquids	AP 2-104 Fleet Management <sup>1,3</sup> and AP 1-410 Capital; ATCP 93.500 <sup>2</sup> ; Asset Mgmt Policy <sup>3</sup>	CHEMS (S) <sup>1</sup> ; AssetWorks (P); Form 1-410-C	AssetWorks	Annual Services & PMCS <sup>1,3</sup> ; Annual St. Insp. <sup>2</sup> ; 15% Quarterly Inspections <sup>3</sup> ; Annually <sup>4,5</sup>
Parks & Grounds 1. Trees 2. Turf 3. Amenities & Structures	AP 2-112 Grounds, Parks & Greenspace <sup>1,2</sup> ; Park Plans	AssetWorks	AssetWorks	Biennial; Annual for Capital Assets
Wastewater 1. Building 2. Pumps 3. Pipes 4. Components	NR 208	SWAMP <sup>b</sup> ; GIS	CMAR Form; AssetWorks <sup>c</sup>	Annual (CMAR); 20% Annually System Maintenance
Transportation 1. Pavement 2. Bridges 3. Culverts <sup>d</sup>	HMM; Transportation Policy (TBP)	WISLR <sup>1</sup> ; HSI <sup>2</sup> ; AssetWorks / GIS <sup>3</sup>	WISLR <sup>1</sup> ; HSI <sup>2</sup> ; AssetWorks / GIS <sup>3</sup>	Biennial; Biennial w/Quarterly Inspection <sup>3</sup>
Traffic Control 1. Signs 2. Signals 3. Markings	HMM; Transportation Policy (TBP)	AssetWorks (County)	AssetWorks; Route Recon. Rpt	Biennial w/Quarterly Inspection <sup>d</sup>

<sup>a</sup> All Assets are referenced in this plan regarding inventory & condition assessment requirements.

<sup>b</sup> DNRs Wastewater Management System

<sup>c</sup> AssetWorks only used for maintenance management, other systems used for inventory.

<sup>d</sup> Traffic Control Devices and Culverts. All Assets along two County routes will be inventoried and applicable assets assessed quarterly.