

Vadnais Lakes Area Water Management Organization
Drainage Management Policy

INTRODUCTION

The Vadnais Lakes Area Water Management Organization (VLAWMO) is a joint powers organization tasked with managing water resources in a 25 square mile area within Ramsey and Anoka Counties. On September 22, 1986, Ramsey County transferred to VLAWMO its responsibility over two public drainage systems: Ramsey County Ditch (CD) 13 and CD 14. See **Figure 1** for the location for these systems. As VLAWMO is neither a County nor a Watershed District, VLAWMO must manage these public drainage systems using its authorities as a Watershed Management Organization described within Minnesota Statute 103B.

Given VLAWMO's unique role in managing public drainage systems under its M.S. 103B authorities, the roles, responsibilities, and operational methods in managing the systems are not well defined. The purpose of this document is to establish a set of policies and principles for guidance in future decisions by the VLAWMO Board and for management activities completed by VLAWMO staff.

MANAGEMENT PURPOSE, GOALS, AND STRATEGIES

CD 13 and 14 were originally established in 1916 to drain wetlands and reduce flooding to enable various forms of agricultural production (likely hay and pasture). As the area urbanized, the function and utility of the systems changed from agricultural drainage to serving as a regional outlet for municipal stormwater facilities. With this transition, the capacity of the systems is most relevant to large rainfall events (e.g., 10-year and 100-year rainfall). In addition, several impoundments have been built along the systems for the purpose of water quality, ecological habitat, and flood management. Management of the system must now consider multiple purposes, functions, and interests.

The following are the primary goals of VLAWMO's management of the CD 13 & 14 public drainage systems:

- Manage the public drainage systems pursuant to its authorities under M.S. 103B.
- Maintain and/or restore drainage function in the systems to the as-constructed and subsequently improved condition¹ (ACSIC) of the drainage systems, when feasible. Determination of feasibility includes, but is not limited to, overall cost and conflict with other program goals/interests
- Provide for a capacity of at least a 10-year, 24-hour rainfall without overtopping municipal roadway infrastructure
- Provide for a capacity of at least a 100-year, 24-hour rainfall without inundating existing permanent buildings.
- Maintain and/or modify the grade, cross-section, and capacity of the systems to preserve and/or enhance water quality, ecological habitat, and flood storage functions of the system and its adjacent wetlands

¹ For the purposes of this document, the ACSIC includes both documented and non-documented modifications to the drainage system, including impoundments and excavation.

These goals are accomplished through the following strategies:

- Inspect the systems on a coordinated schedule and upon notification of deficiencies.
- Complete schedule maintenance activities on the drainage system to enable continued access and reduce the frequency of reconstruction
- Collaborate with VLAWMO partners (including municipalities and DNR) to achieve common interests while minimizing costs
- Engage adjacent landowners in advance of repair activities and modifications to the system to inform them of the extent, purpose, and management of the systems and receive input on adjacent property interests and their relationship to the proposed work
- Complete early coordination with regulatory interest prior to repair and/or modification of the public drainage systems. Regulatory coordination will consider the policies described herein and the exemptions provided for public drainage systems under M.S. 103E, M.S. 103G and the Wetland Conservation Act.
- Adopt (via a Board action and after due process) a maintenance profile on each segment of the public drainage system prior to completing maintenance or major repair work on that segment. The maintenance profile may or may not be the as-constructed and subsequently improved condition of the system.

These goals and strategies may not be achievable in their entirety in all locations. VLAWMO will balance the multiple functions and interests to maximize the overall value and utility of the system.

PUBLIC DRAINAGE INSPECTION PROGRAM

MS 103E requires drainage authorities to inspect public drainage systems at an interval no greater than every 5 years. Although VLAWMO is not subject to the requirements of MS103E, inspection of CD 13 and 14 at scheduled intervals is necessary for the management of the systems.

The following are inspection frequency protocols for various components of the drainage system:

System Component	Type of Inspection	Minimum Frequency	Primary Responsible Entity
Open Ditch and right-of-way (accessible areas)	Walk-through	Every 5 years	VLAWMO
Open Ditch and right-of-way (inaccessible areas)	Drone flight	Every 5 years	VLAWMO
Open Ditch and right-of-way	Field survey of ditch bottom	Every 20 years and following major repairs	VLAWMO
Roadway culverts	Site visit	Every 5 years and following significant (>3") rainfall events	Road Authority
Private culverts	Site visit	Every 5 years and following significant (>3") rainfall events	VLAWMO
Stormsewer	Site inspection of intakes and outfalls	Every 5 years	VLAWMO
Stormsewer	Televising	Every 20 years	Municipality
Weirs/dams	Site visit	Every 5 years	VLAWMO

Miscellaneous	Response to landowner complaint	Within 14 days of complaint	VLAWMO
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All inspections should be documented and filed within VLAWMOs filing system.

MINOR (ROUTINE) MAINTENANCE IMPLEMENTATION

Completing routine maintenance along the systems in a timely manner will extend the life of the system and decrease the frequency of more substantial repair efforts. For the purposes of this policy document, “minor” maintenance is work on the system with an estimated cost of less than \$30,000 requiring minimal regulatory coordination or engineering assistance. Examples of maintenance activities include mowing and/or spraying of right-of-way access corridors; removal of deadfalls and nuisance trees; removal of beaver dams; limited dredging of sediments; channel erosion repairs, and cleanout of culvert/stormsewer intakes.

The following is the general process for addressing minor maintenance;

- a) Need for maintenance is identified (either via scheduled inspection or landowner complaint)
- b) Inspect the site and verify scope and potential for damage
- c) Prioritize maintenance with respect to other VLAWMO activities and schedule the work to be completed. Prioritization shall consider (but is not limited to)
 - a. Size/scale of work
 - b. Potential for damages to property/infrastructure if work is not completed
 - c. Potential for further deterioration of the ditch system if work is not completed
 - d. Availability of staff to address the concern
 - e. Availability of contractors to complete the work
 - f. Overall cost
- d) Contract with a contractor to complete the work. This may consist of a direct hire on a time and materials basis, or a receipt of quotes from one or multiple contractors
- e) Execute the work and observe construction. Observation generally to be completed by VLAWMO staff.
- f) Document maintenance work in the VLAWMO file system

Annual maintenance costs will vary. A budget of \$2,000 per ditch mile annually may be used an initial starting point. The budget should be reevaluated annually to determine its effectiveness in meeting system needs.

MAJOR REPAIR IMPLEMENTATION

Over time, restoration of the drainage systems will require reconstruction of a significant portion of a system. This work generally exceeds \$30,000 for single project and may require engineering development. For the purpose of this policy, these are referred to as “major” repairs. Examples of major repair activities include reestablishment of right-of-way corridors via tree clearing; dredging of open channel and/or erosion repair over extended portions of the system; replacement of stormsewer; replacement of weir structures; and other work requiring regulatory permitting.

The following is the general process for major repairs;

- a) Need for repair is identified via an inspection report, completed by VLAWMO staff or a consultant

- b) Present the inspection report to the VLAWMO board and provide a preliminary opinion on the cost of repair and prioritization of work.
- c) Prioritize and schedule the work within the VLAWMO CIP. Prioritization shall consider (but is not limited to)
 - a. Size/scale of work
 - b. Potential for damages to property/infrastructure if work is not completed
 - c. Potential for further deterioration of the ditch system if work is not completed
 - d. Relative urgency and value of work compared to other scheduled CIPs
 - e. Likelihood of work to provide benefit in achieving multiple VLAWMO goals
 - f. Complexity and likely duration of project development
 - g. Overall cost
- d) Between 1 to 2 years prior to scheduled work completion, prepare a Repair Report. Repair report shall include:
 - a. Conceptualization and evaluation of multiple alternatives for repair
 - b. Quantification of the benefits of repair
 - c. Description of potential damages from repair and how they may be mitigated
 - d. Opinion of probable construction cost
 - e. Summary of likely regulatory engagement requirement including permitting. Early coordination with regulating entities may be necessary at this step
- e) Present the repair report to the VLAWMO board and confirm prioritization, schedule, and budgeting with regard to VLAWMOs current CIP plan and yearly budget.
- f) Complete a public meeting with landowner to inform them of planned activities and receive input on specific preferences and interests on their property
- g) Develop preliminary and final construction plans and specifications
- h) Contract with a contractor to complete the work. This will require a receipt of quotes from multiple contractors, or use of a public bid process
- i) Execute the work and observe construction. Observation generally to be completed by the project engineer.
- j) Complete an as-built survey.
- k) File project documentation in the VLAWMO file system

Note that the above process does not specify coordination with VLAWMO's municipal partners. Such coordination is a critical component throughout the repair process.

REQUESTS TO MODIFY THE DRAINAGE SYSTEM

VLAWMO may receive requests from landowners or district municipal partners, or initiate its own request, to modify the public drainage system from the as-constructed and subsequently improved condition. These modifications may include a combination of one or more of the following:

- realignment;
- partial abandonment;
- impoundment;
- improvement (making the cross-section larger or deeper); and
- constructing a new outlet to the system.

As VLAWMO does not administer their drainage systems under MS 103E, the procedural requirements specified under M.S. 103E for these modifications are unnecessary and, in many cases, inappropriate. To

achieve effective management of the public drainage systems using its MS 103B authorities, the following is VLAWMO's procedure for considering requests to modify the system:

- a) Receive a written request from the applicant. The request must include:
 - a. The scope and nature of the proposed modification, including alignment, grade, cross-section, and right-of-way
 - b. A statement of the overall need and benefit of the modification
 - c. A hydrology and hydraulic model of existing and proposed conditions
 - d. A summary of the upstream and downstream effects of the modification for the 2-, 10-, and 100-year rainfall events
 - e. Low opening elevations for structures adjacent to portions of the current or proposed system that may be potentially impacted by the modification
 - f. A summary of potential impacts (flooding, water quality and ecological habitat) potentially resulting from the modification and how they are to be mitigated
 - g. A description of permits required for the proposed change and status of permit acquisition
 - h. Identification of long-term maintenance responsibilities for the modified portions of the system
- b) VLAWMO staff will distribute the request to VLAWMO's legal counsel and engineering consultant for review. The engineering review shall consider and summarize:
 - a. The completeness of the application. The review may require multiple iterations of submittal from the applicant to demonstrate completeness
 - b. Whether the modification is in the best interests of landowners served by the system and of VLAWMO
 - c. Conditions that should be placed on the applicant
- c) Upon receipt of the engineering review, VLAWMO Board shall consider the request at the next regularly scheduled Board meeting. At the meeting, the Board shall:
 - a. Deny the request if the modification is not in the best interests of the landowners served by the system or of VLAWMO;
 - b. Approve the request if the modification is in the best interests of the landowners served by the system. The approval may include one or more conditions.
- d) If approved, the requestor shall inform VLAWMO staff prior to beginning construction of the modification to facilitate inspection of the modification.
- e) The requestor shall provide as-built records of the modification following construction completion.

ROLE OF VLAWMO PARTNER CITIES IN PUBLIC DRAINAGE SYSTEM MANAGEMENT

VLAWMO's municipalities are a critical partner in managing the public drainage systems. While they are engaged in many aspects of the public drainage system, their primary role with the systems consists of three primary aspects: 1) management of roadway culverts; 2) point of contact with landowners; 3) acceleration of capital projects; and 4) transferee of portions of the drainage system. The following paragraphs describe each in greater detail.

Management of Roadway Culverts

While roadway culverts are integral to the function and management of the public drainage system, they are not components of the system managed by the drainage authority. Rather, management and

maintenance of the roadway culverts are solely the responsibility of the roadway authority. Given the culverts' ability to affect the function of the drainage system, VLAWMO and the road authorities (primarily cities) work closely to monitor conditions, identify efficiencies, and plan for repairs and modifications of the culverts to maintain and enhance efficiency in the system.

Point of Contact with Landowners

Municipalities by their nature are most often the first point of contact for landowners regarding any public project, regardless of whether the project is initiated by the municipality. For this reason, VLAWMO relies upon its member cities to assist in landowner engagement at all stages of public drainage management, particularly with landowners most affected by drainage management activities.

Acceleration of Capital Projects

Based on their engagement with their constituents, municipalities may have an interest in accelerating the implementation of capital projects to restore drainage function on portions of the public drainage system, beyond the timeframes feasible for VLAWMO within their prioritization and budget. In such cases, the municipalities may undertake repairs to the public drainage system at their own expense, if VLAWMO determines that the proposed work is of benefit to the public drainage system. Generally, the procedure is similar to the process described under *Major Repair Implementation* above, with the following modifications/inclusions:

- Prior to repair report development, the City shall make a written request to VLAWMO to collaborate on the acceleration of drainage management restoration in the targeted area. VLAWMO will provide the City with available documentation related to the public drainage system of interest, and provide for technical staff to assist in guidance on drainage management strategies and VLAWMO's drainage policy
- Development of the inspection and repair report will be the responsibility of the City and its consultants;
- City will coordinate with VLAWMO during each phase of project development including repair report development, regulatory engagement, final plan development, construction initiation, and project closeout
- Recommended repair and final plans must be approved by VLAWMO prior to proceeding to subsequent phases

Following the City-led repair efforts, VLAWMO will retain its management authority and responsibility over all portions of the public drainage system, except where formally transferred to the City (see below)

Transferee of Portions of the Public Drainage System

Although the public drainage system is in most cases best managed as a single system by a single entity (VLAWMO), there may be circumstances where it may be advantageous to transfer management and responsibility of the upper portion of the system branches to a municipality. Such circumstances may include where the system is:

- Located entirely within City property interests (right-of-way, easement, or fee-title property);
- Located primarily under City streets;
- Consisting of stormsewer; and/or
- Within City-maintained ponds or other stormwater management features.

These circumstance most often are associated with a requested modification of the drainage system. Under no circumstances shall a portion of the public drainage system be transferred when upstream portions of the system remain the responsibility of VLAWMO.

Transference of any portion of the public drainage system must be initiated by the transferee, via a written request to VLAWMO. VLAWMO staff will review the request and provide a recommendation to the Board. If the Board determines that the transference of management of the portion of drainage system is in the best interests to the management of the system, it will make an order to transfer the portion of the system. VLAWMO will then coordinate the delivery of available documentation related to that portion of the system to the transferee, including known easements.

INTERCONNECTION WITH VLAWMO WATERSHED MANAGEMENT PLAN

VLAWMO's Comprehensive Water Plan provides some description of its role as the drainage authority for CD 13 and 14, particularly in Section 3.5 of the plan (Regulatory Program). This section states:

VLAWMO plans to continue its Drainage Authority role and will actively look for opportunities to use its unique abilities and authorities under 103B and 103E to implement water quality improvement projects concurrently with ditch maintenance and repair projects.

However, the plan does not specify repair projects necessary to restore function to the drainage systems, nor does it specifically indicate funding for this purpose. Implementation of this policy will occur through an amendment to the VLAWMO watershed management plan. Such an amendment will include:

- Clarify VLAWMOs authorities over the drainage system are provided for under MS 103B (and not MS 103E);
- Identify dedicated funding toward annual inspection and maintenance of the systems;
- Identify future capital projects to restore function to the drainage system, including implementation budgeting; and
- Reference or attach this policy document.

Vadnais Lakes Area Water Management Organization

Public Drainage Management Policy

INTRODUCTION

The Vadnais Lakes Area Water Management Organization (“VLAWMO”) is a joint powers organization tasked with managing water resources in a 25 square mile area within Ramsey and Anoka Counties. VLAWMO has its own staff and is managed by a board of directors (“Board”). On September 22, 1986, Ramsey County transferred to VLAWMO its responsibility over two public drainage systems: Ramsey County Ditch (CD) 13 and CD 14. See **Figure 1** for the location for these systems. The transfer occurred under Minnesota Statutes, section 112.65, subdivision 2, which directed the repair and maintenance of the transferred ditches were to be in accordance with Minnesota Statutes, sections 106A.005 to 106A.811. In 1990, the provisions of Minnesota Statutes, chapter 106A were revised and moved into Minnesota Statutes, chapter 103E.

Under Minnesota Statutes, section 103E.812, subdivision 8(a), the effect of transferring all of a drainage system to a water management authority (VLAWMO) is that “the drainage system ceases to be subject to regulation under this chapter” Furthermore, the “water management authority may manage water within its jurisdictional boundaries according to whatever law controls the function of the water management authority. The transferred drainage system shall become a work and a responsibility of the transferee water management authority.” The joint powers agreement creating VLAWMO recognizes the transfer and Section VI, Subd. 5 of the agreement indicates ditches are to be managed “in accordance with the powers and procedures set forth in Minnesota Statutes, Chapters 103B and other applicable law, and must be in conformance with the Watershed Management Plan adopted pursuant to Minnesota Statutes, Chapters 103A through 103H.” Which means VLAWMO is required to manage CD 13 and CD 14 in accordance with its authority under Minnesota Statutes, chapter 103B. Nothing in this document is to be construed as VLAWMO agreeing to be bound by the procedures set out in Minnesota Statutes, chapter 103E.

Understanding VLAWMO’s unique role in managing public drainage systems under its Minnesota Statutes, chapter 103B authorities, the specific roles, responsibilities, and operational methods in managing the systems are not well defined. Therefore, the purpose of this document is to establish a set of policies and principles for guidance in future decisions by the VLAWMO Board, for management activities completed by VLAWMO staff, and to establish procedures informative to VLAWMO’s local government partners.

MANAGEMENT PURPOSE, GOALS, AND STRATEGIES

CD 13 and 14 were originally established in 1916 to drain wetlands and reduce flooding to enable various forms of agricultural production (likely hay and pasture). As the area urbanized, the function and utility of the systems changed from agricultural drainage to serving as a regional outlet for municipal stormwater facilities. With this transition, the capacity of the systems is most relevant to large rainfall events (e.g., 10-year and 100-year rainfall). In addition, several impoundments have been built along the systems for the purpose of water quality, ecological habitat, and flood management. Management of the system must now consider multiple purposes, functions, and interests.

The following are the primary goals of VLAWMO's management of the CD 13 & 14 public drainage systems:

- Manage the public drainage systems pursuant to its authorities under Minnesota Statutes, chapter 103B;
- Maintain and/or restore drainage function in the systems to the maintenance profile which may or may not be equivalent to the as-constructed and subsequently improved condition¹ (ACSC) of the drainage systems when feasible. Determination of feasibility includes, but is not limited to, overall cost and conflict with other program goals/interests;
- Provide for a capacity of at least a 10-year, 24-hour rainfall without overtopping municipal roadway infrastructure;
- Provide for a capacity of at least a 100-year, 24-hour rainfall without inundating existing permanent buildings; and
- Maintain and/or modify the grade, cross-section, and capacity of the systems to preserve and/or enhance water quality, ecological habitat, and flood storage functions of the system and its adjacent wetlands

These goals are accomplished through the following strategies:

- Inspect the systems on a coordinated schedule and upon notification of deficiencies;
- Complete schedule maintenance activities on the drainage system to enable continued access and reduce the frequency of reconstruction;
- Collaborate with VLAWMO partners (including local governments and DNR) to coordinate activities and to achieve common interests while minimizing costs;
- Engage adjacent landowners in advance of repair activities and modifications to the system to inform them of the extent, purpose, and management of the systems and receive input on adjacent property interests and their relationship to the proposed work;
- Complete early coordination with regulatory interest prior to repair and/or modification of the public drainage systems. Regulatory coordination will consider the policies described herein and the exemptions provided for public drainage systems under Minnesota Statutes, chapter 103G, the Wetland Conservation Act, and any other exemptions which may apply; and
- Adopt (via a Board action) a maintenance profile on each segment of the public drainage system prior to completing maintenance or major repair work on that segment. The maintenance profile may or may not be the as-constructed and subsequently improved condition of the system.

These goals and strategies may not be achievable in their entirety in all locations. VLAWMO will balance the multiple functions and interests to maximize the overall value and utility of the system. As deemed necessary by the VLAWMO Board, this Policy can be reviewed and or updated as needed.

PUBLIC DRAINAGE INSPECTION PROGRAM

VLAWMO desires to establish a schedule for the inspection of CD 13 and 14 as part of its management of the systems. The following are inspection frequency protocols for various components of the drainage system:

¹ For the purposes of this document, the ACSIC includes both documented and non-documented modifications to the drainage system, including impoundments and excavation.

System Component	Type of Inspection	Minimum Frequency	Primary Responsible Entity
Open Ditch and right-of-way (accessible areas)	Walk-through	Every 5 years	VLAWMO
Open Ditch and right-of-way (inaccessible areas)	Drone flight	Every 5 years	VLAWMO
Open Ditch and right-of-way	Field survey of ditch bottom	Every 20 years and following major repairs	VLAWMO
Roadway culverts	Site visit	Every 5 years and following significant (>3") rainfall events	Road Authority
Private culverts	Site visit	Every 5 years and following significant (>3") rainfall events	VLAWMO
Stormsewer	Site inspection of intakes and outfalls	Every 5 years	VLAWMO
Stormsewer	Televising	Every 20 years	Local government
Weirs/dams	Site visit	Every 5 years	VLAWMO
Miscellaneous	Response to landowner complaint	Within 14 days of complaint	VLAWMO

All inspections should be documented and filed within VLAWMOs filing system.

MINOR (ROUTINE) MAINTENANCE IMPLEMENTATION

Completing routine maintenance along the systems in a timely manner will extend the life of the system and decrease the frequency of more substantial repair efforts. For the purposes of this policy document, “minor” maintenance is work on the system with an estimated cost of less than \$30,000 requiring minimal regulatory coordination or engineering assistance. Examples of minor maintenance activities include, but are not limited to, mowing and/or spraying of right-of-way access corridors, removal of deadfalls and nuisance trees, removal of beaver dams, limited dredging of sediments, channel erosion repairs, and cleanout of culvert/stormsewer intakes.

The following is the general process for addressing minor maintenance.

- a) Need for maintenance is identified (either via scheduled inspection or landowner complaint).
- b) Inspect the site and verify scope and potential for damage.
- c) Prioritize maintenance with respect to other VLAWMO activities and schedule the work to be completed. Prioritization shall consider, but is not limited to, the following:
 - a. Size/scale of work;
 - b. Potential for damages to property/infrastructure if work is not completed;
 - c. Potential for further deterioration of the ditch system if work is not completed;
 - d. Availability of staff to address the concern;
 - e. Availability of contractors to complete the work; and
 - f. Overall cost.
- d) Obtain approval from the Board for the work if required.
- e) Contract with a contractor to complete the work. This may consist of a direct hire on a time and materials basis, or a receipt of quotes from one or multiple contractors.

- f) Execute the work and observe construction. Observation generally to be completed by VLAWMO staff.
- g) Document maintenance work in the VLAWMO file system

Annual maintenance costs will vary. A budget of \$2,000 per ditch mile annually may be used as an initial starting point. The budget should be reevaluated annually to determine its effectiveness in meeting system needs.

MAJOR REPAIR IMPLEMENTATION

Over time, restoration of the drainage systems will require reconstruction of a significant portion of a system. This work generally exceeds \$30,000 for single project and may require engineering development. For the purpose of this policy, such projects constitute “major” repairs. Examples of major repair activities include, but are not limited to, reestablishment of right-of-way corridors via tree clearing, dredging of open channel and/or erosion repair over extended portions of the system, replacement of stormsewer, replacement of weir structures, and other work requiring regulatory permitting.

The following is the general process for major repairs.

- a) Need for repair is identified via an inspection report, completed by VLAWMO staff or a consultant.
- b) Present the inspection report to the VLAWMO Board and provide a preliminary opinion on the cost of repair and prioritization of work.
- c) Prioritize and schedule the work within the VLAWMO CIP. Prioritization shall consider, but is not limited to, the following:
 - a. Size/scale of work;
 - b. Potential for damages to property/infrastructure if work is not completed;
 - c. Potential for further deterioration of the ditch system if work is not completed;
 - d. Relative urgency and value of work compared to other scheduled CIPs;
 - e. Likelihood of work to provide benefit in achieving multiple VLAWMO goals;
 - f. Complexity and likely duration of project development; and
 - g. Overall cost.
- d) Between 1 to 2 years prior to scheduled work completion, prepare a Repair Report. Repair report shall include:
 - a. Conceptualization and evaluation of multiple alternatives for repair;
 - b. Quantification of the benefits of repair;
 - c. Description of potential damages from repair and how they may be mitigated;
 - d. Opinion of probable construction cost; and
 - e. Summary of likely regulatory engagement requirement including permitting. Early coordination with regulating entities may be necessary at this step.
- e) Present the repair report to the VLAWMO Board and confirm prioritization, schedule, and budgeting with regard to VLAWMOs current CIP plan and yearly budget.
- f) Complete a public meeting with landowner to inform them of planned activities and receive input on specific preferences and interests on their property.
- g) Develop preliminary and final construction plans and specifications.
- h) Obtain any additional approvals required for the project from the Board.

- i) Contract with a contractor to complete the work. This will require a receipt of quotes from multiple contractors, or use of a public bid process, as may be required by law.
- j) Execute the work and observe construction. Observation generally to be completed by the project engineer.
- k) Compete an as-built survey.
- l) File project documentation in the VLAWMO file system

Note that the above process does not specify coordination with VLAWMO's local government partners. Such coordination is a critical component throughout the repair process.

PARTNER COMMUNITY REQUEST FOR A DRAINAGE SYSTEM PROJECT

A local government may determine it has a direct interest in undertaking a project within the public drainage system. Without limiting the potential scope of such projects, they may include:

- Realignment;
- Partial abandonment;
- Impoundment;
- Improvement (making the cross-section larger or deeper); or
- Constructing a new outlet to the system.

Local governments are encouraged to discuss proposed projects with VLAWMO staff before formally proposing a project to VLAWMO. If a local government determines to proceed with a formal request for a project, it must submit it in writing to the Board that describes the specifics of the proposed project.

The Board will consider any such requests as part of its policy setting process to update its CIP plan and priorities. Whether the proposed modification is added to the CIP plan and, if so, how it is prioritized will depend, in part, on the level of the partner community's proposed involvement in the proposed project.

As part of the process to consider a request, VLAWMO may require from the requesting local government that it supply the following information regarding the proposed project:

- a) The scope and nature of the proposed modification, including alignment, grade, cross-section, and right-of-way;
- b) A statement of the overall need and benefit of the modification;
- c) A hydrology and hydraulic model of existing and proposed conditions;
- d) A summary of the upstream and downstream effects of the modification for the 2-, 10-, and 100-year rainfall events;
- e) Low opening elevations for structures adjacent to portions of the current or proposed system that may be potentially impacted by the modification;
- f) A summary of potential impacts (flooding, water quality and ecological habitat) potentially resulting from the modification and how they are to be mitigated;
- g) A description of permits required for the proposed change and status of permit acquisition; and
- h) Identification of long-term maintenance responsibilities for the modified portions of the system.

ROLE OF VLAWMO PARTNER COMMUNITIES IN PUBLIC DRAINAGE SYSTEM MANAGEMENT

The local governments that formed VLAWMO are a critical partner in managing the public drainage systems. While they are engaged in many aspects of the public drainage system, their primary role with the systems consists of four primary aspects: 1) management of roadway culverts; 2) point of contact with landowners; 3) acceleration of capital projects; and 4) transferee of portions of the drainage system. The following paragraphs describe each in greater detail.

Management of Roadway Culverts

While roadway culverts are integral to the function and management of the public drainage system, they are not components of the system managed by the drainage authority. Rather, management and maintenance of the roadway culverts are solely the responsibility of the roadway authority. Given the culverts' ability to affect the function of the drainage system, VLAWMO and the road authorities (primarily cities) work closely to monitor conditions, identify efficiencies, and plan for repairs and modifications of the culverts to maintain and enhance efficiency in the system.

Point of Contact with Landowners

Local governments by their nature are most often the first point of contact for landowners regarding any public project, regardless of whether the project is initiated by the local government. For this reason, VLAWMO relies upon its member local governments to assist in landowner engagement at all stages of public drainage management, particularly with landowners most affected by drainage management activities.

Acceleration of Capital Projects

Based on their engagement with their constituents, local governments may have an interest in accelerating the implementation of capital projects to restore drainage function on portions of the public drainage system, beyond the timeframes feasible for VLAWMO within their prioritization and budget. In such cases, a local government may seek consent from VLAWMO to undertake the proposed project. If VLAWMO determines the proposed work is of benefit to the public drainage system and will not unreasonably interfere with any other portion of the public drainage system, it will enter into an agreement setting out the terms and conditions of the project to be constructed by the local government. Generally, the procedure is similar to the process described under *Major Repair Implementation* above, with the following modifications/inclusions:

- Prior to repair report development, the local government shall make a written request to VLAWMO to collaborate on the acceleration of drainage management restoration in the targeted area. VLAWMO will provide the local government with available documentation related to the public drainage system of interest, and provide for technical staff to assist in guidance on drainage management strategies and VLAWMO's drainage policy
- Development of the inspection and repair report will be the responsibility of the local government and its consultants;
- The local government and VLAWMO will enter into a joint powers agreement to set out the responsibilities of each regarding the project and its on-going maintenance;
- The local government will coordinate with VLAWMO during each phase of project development including repair report development, regulatory engagement, final plan development, construction initiation, and project closeout; and

- Recommended repair and final plans must be approved by VLAWMO prior to proceeding to subsequent phases.

Following the local government-led repair efforts, VLAWMO will retain its management authority and responsibility over all portions of the public drainage system, except where formally transferred to the local government (see below).

Transferee of Portions of the Public Drainage System

Although the public drainage system is in most cases best managed as a single system by a single entity (VLAWMO), there may be circumstances where it may be advantageous to transfer management and responsibility of the upper portion of the system branches to a local government. Such circumstances may include, but are not limited to, where the system is:

- Located entirely within local government's property interests (right-of-way, easement, or fee-title property);
- Located primarily under local government streets;
- Consisting of stormsewer; and/or
- Within local government-maintained ponds or other stormwater management features.

These circumstance most often are associated with a requested modification of the drainage system. Under no circumstances shall a portion of the public drainage system be transferred when upstream portions of the system remain the responsibility of VLAWMO.

Transference of any portion of the public drainage system must be initiated by the transferee, via a written request to VLAWMO. VLAWMO staff will review the request and provide a recommendation to the Board. If the Board determines that the transference of management of the portion of drainage system is in the best interests to the management of the system, it will enter into an agreement with the local government to accomplish the transfer. VLAWMO will then coordinate the delivery of available documentation related to that portion of the system to the transferee, including known easements.

INTERCONNECTION WITH VLAWMO WATERSHED MANAGEMENT PLAN

VLAWMO's Comprehensive Water Plan provides some description of its role as the drainage authority for CD 13 and 14, particularly in Section 3.5 of the plan (Regulatory Program). This section states:

VLAWMO plans to continue its Drainage Authority role and will actively look for opportunities to use its unique abilities and authorities under 103B and 103E to implement water quality improvement projects concurrently with ditch maintenance and repair projects.

However, the plan does not specify repair projects necessary to restore function to the drainage systems, nor does it specifically indicate funding for this purpose. Implementation of this policy will occur through an amendment to the VLAWMO watershed management plan. Such an amendment will include:

- Clarify VLAWMO's authorities over the drainage system are provided for under Minnesota Statutes, chapter 103B (and not Minnesota Statutes, chapter 103E);
- Identify dedicated funding toward annual inspection and maintenance of the systems;
- Identify future capital projects to restore function to the drainage system, including implementation budgeting; and
- Reference or attach this policy document.

Figure 1

