

# MRTA MAINTENANCE STUDY RECOMMENDATIONS & PROGRAM GUIDE

## Summary of Key Recommendations

1. Implement Maintenance Program
2. Implement Refurbishment Program
3. Develop Trail Inventory and Map
4. Establish Maintenance and Refurbishment Endowment Fund

## Trail Refurbishment & Maintenance Priorities

- Priority 1: Provide for User Safety
- Priority 2: Preserve the Trail and Environment
- Priority 3: Provide for User Convenience

### Priority 1: Provide for User Safety

Safety elements may vary in terms of severity, but a common sense approach to prioritizing refurbishment projects would concentrate on correcting trail deficiencies that have an emergency dimension to them.

Emergency projects may put nearby trail users at severe risk. In many instances, these safety concerns may make the trail or sections of the trail unusable. Common safety considerations include:

- Repair of structures such as bridges and stairs
- Repair of impassable wash-outs
- Removal of storm damage
- Preventative measures such as cutting-down leaning trees

### Priority 2: Preserve the Trail and Environment

Preserving the trail and the environment equates to repairing and/or correcting issues that are contributing to significant trail damage and preserving the environmental quality that makes the trail attractive to users.

Improper planning, design and construction of a trail may lead to consistent, significant damage to trail sections. In these instances, rerouting may be the best option to correcting the problem. Other examples of maintenance measures towards preserving the trail and environment include:

- Correcting erosion/sedimentation problems
- Repairing deteriorated tread way (filling ruts, and patching pavement and/or crushed gravel)
- Preventing off-site trampling
- Addressing drainage issues

### Priority 3: Provide for User Convenience

Maintaining the trail in a manner that provides for user comfort may include maintenance aspects of Priorities 1 and 2. Providing for user convenience often requires, at minimum, the completion of annual maintenance or cosmetic improvements. However, many of the tasks involved within this priority are not excessively technical and can be accomplished by a group of volunteers. Some tasks include:

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- Maintaining and/or enhancing the landscape (ex. planting, mowing, brushing, trimming, etc.)
- Cleaning littered areas
- Repairing/replacing vandalized furniture, and/or signage
- Repairing/replacing decking or railings
- Repairing or maintaining amenities such as washrooms, garbage cans, picnic tables and benches

## **Maintenance**

Maintenance, or routine maintenance, consists of day-to-day or recurring activities undertaken to make the trail passable and enjoyable for users.

These activities tend to be much less technical and less costly than refurbishment projects, as volunteers can complete the majority of the work.

Routine maintenance activities are typically comprised of Priority 3 issues; however, in some instances routine maintenance concerns can include non-technical Priority 2 issues.

Examples include:

Priority 2 (Preserve the Trail and Environment)

- Filling/patching ruts on deteriorated tread way

Priority 3 (Provide for User Convenience)

- Maintaining the landscape
- Cleaning littered areas
- Repairing/replacing vandalized furniture and/or signage
- Repairing/replacing decking or railings

## **Refurbishment**

Refurbishment refers to repairing, reconstructing, replacing or restoring existing trail components that have been severely altered, damaged or destroyed either by way of neglect or catastrophic events.

With regard to the Priorities trail refurbishment projects are entirely comprised of Priority 1 or 2 concerns, particularly when these issues can make the trail unsafe and/or, especially, impassable.

Refurbishment projects are most likely to require a greater one-time initial investment to immediately correct the trail issue; this is due to the nature of the project and the possible requirement of technical/ construction expertise, coupled with anticipated less-capital intensive “routine maintenance” after development. Some examples would include:

Priority 1: Provide for User Safety

- Reconstruction of bridges and stairs
- Repair of impassable wash-outs
- Replacing culverts

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## Priority 2: Preserve the Trail and Environment

- Correcting erosion/sedimentation problems
- Repairing severely deteriorated tread way

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## **Trail Monitoring & Maintenance Reporting**

An integral aspect of most trail maintenance and management strategies is a reporting requirement known as “trail monitoring.” Trail monitoring is a method for trail leaders to communicate (through conducting a trail condition survey) the physical condition of the trail and take note of trail deficiencies that require maintenance in preparation for the following year’s maintenance activities.

The MRTA intends to develop a full inventory over the trail and its condition; associations will be expected to collaborate with the MRTA in the development of the inventory. As the inventory system is developed, submission of a satisfactory trail condition report will become a condition of funding.

At minimum, a trail condition survey should be conducted once a year (in the spring, prior to high use periods in the summer, or in the fall, after heavy usage). In most instances, trail conditions surveys will be submitted in conjunction with a summary report on the maintenance activities conducted by the trail association throughout the year.

Incorporating a monitoring system (through conducting trail condition surveys) is an integral component in identifying safety issues that are occurring along the trail that could encourage regular communication between the MRTA & Manitoba TCT associations.

Once trail conditions and previous maintenance activities are reported, trail managers/leaders can assess the trail’s overall condition and prioritize projects and maintenance activities to complete the following year.

Trail Condition surveys should include a map identifying the location of the survey, and should be completed and submitted to the MRTA on an annual basis in conjunction with a summary report on maintenance activities undertaken by the association or group and a plan for the next year’s activities.

## **Maintenance Leaders**

Each TCT association will require a maintenance leader.

Maintenance leaders would be responsible for:

- Overseeing maintenance and monitoring/reporting of their trail section
- Applying for refurbishment grants and maintenance funding
- Contacting appropriate parties responsible for maintenance concerns when issues are identified outside of regularly monitored areas
- Helping to develop a trail inventory
- Assisting with trail audit / inventory

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## MRTA TCT Maintenance & Refurbishment Program Guidelines

### Program Goal

To support the maintenance, management and refurbishment activities of Manitoba TCT associations in order to maintain the TCT in a manner that provides for a safe and enjoyable experience for TCT users.

### Eligible Applicants

Local trail associations responsible for maintaining the TCT in Manitoba. Sub-groups (responsible for the maintenance of trail portions within TCT association sections) may apply for assistance within their applicable TCT association application. Approved funding may be directed towards these sub-groups through the appropriate TCT association.

- Must be a member of the MRTA
- Trail associations and/or sub-groups must provide proof of insurance to be eligible for funding

## 1. MRTA MAINTENANCE PROGRAM

For most Manitoba TCT associations, routine maintenance activities such as mowing/brushing and signage replacement (especially resulting from vandalism) appear to consume most of the maintenance time and efforts of the responsible associations.

In many instances, trail associations are providing the maintenance services with little to no compensation for the machinery, machinery rental, or maintenance of the machinery (ex. gas).

Suggestions from these organizations as to how much money should be allocated often included providing an annual amount to the TCT organizations between approximately \$300-\$1,000 to pay for gas, machine rentals (including rental from municipalities), and materials.

### Funding Allocation Factors

Various issues will be considered in the review of funding applications, particularly if the demand for funds exceeds the cash available, including:

- Which trail organizations have the greatest number of higher priority issues that must be addressed?
- Which trail organizations have been the most active and/or motivated in maintaining the trail?
- Which trail organizations have the greatest portion of trail section to maintain with less trail maintenance commitment from other organizations?

Once the TCT is completed in Manitoba and upon the completion of a trail inventory the MRTA should refine and adjust the maximum allocations per category as required.

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## Maintenance Funding Guidelines

The following guidelines are recommended as a short-term (3-year) approach to allocating maintenance funding toward Manitoba TCT associations. Information gaps exist which need to be resolved, at which time these interim guidelines, categories, and funding rates should be reviewed and adjusted as required.

## Maintenance Funding Categories

All trails have unique conditions and unique maintenance requirements – these guidelines attempt to simplify the application process and administration requirements by identifying three broad categories of eligibility which are assigned to each trail segment using information gathered to date.

- Ownership
- Length
- Remoteness/capacity
- Trail characteristics
- Level of use

Category 1 (recommended maximum annual funding of \$1,000/year)

- Remote trail associations with significant portions of trail section not owned or maintained by various levels of government and/or other organizations
- Trail characteristics that make the trail more costly to maintain
- Potentially higher reliance on volunteer support
- Typically longer trail sections (i.e. approximately 70 kilometers or greater)

Category 2 (recommended maximum annual funding of \$500/year)

- Predominantly remote trail associations with some portions of trail section not owned or maintained by various levels of government and/or other organizations
- Trail characteristics that necessitate moderate maintenance costs
- Some reliance on volunteer support
- Typically mid-length trail sections (i.e. approximately 25 to 70 kilometers)

Category 3 (recommended maximum annual funding of \$250/year)

- Trail associations receiving exceptional levels of trail maintenance assistance from various levels of government or other organizations.
- Typically shorter trail lengths (approximately 25 kilometers or less) and
- Characteristics that make the trail easier to maintain
- The recommended maximum annual funding for these sections generally reflects the nature of the maintenance necessary for these trail sections which includes: replacing damaged/stolen TCT signs, and planting, mowing/trimming along noted trail sections

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**Special Category “A”** (the Rossburn Subdivision Trail) is located along an abandoned rail bed owned by the MRTA. This rural trail section is comprised of grass-covered ballast and over 30 trestle bridges that require regular inspection and maintenance. Currently, the Rossburn Subdivision Trail Association, private landowners, and the local municipalities all contribute to maintaining the trail. A recommended maximum annual maintenance funding of \$2,000/year reflects the trail section’s length and characteristics, including potential safety issues associated with the condition of the bridges, which will require regular purchasing of replacement materials (this maintenance budget is apart from the refurbishment considerations that include the refurbishment of some bridges along the trail).

**Special Category “B”** (the Crow Wing Trail) is unique because of the trail characteristics, such as length and predominantly rural nature of the trail, and the number of “sub” groups active in maintaining specific trail sections. The recommended maximum annual funding for this section is \$2,500/year, which would be dispersed as required among the sub-groups by the Crow Wing Trail Association.

**Special Category “C”** (Winnipeg) warrants special consideration because of the amount of use, the amount of signage, and potential damage/losses to trail infrastructure within this TCT section. Although trail maintenance is predominantly provided by City of Winnipeg, annual funding is foreseen to primarily cover signage replacement. The recommended maximum annual funding for this section is \$1,500/year, which would be dispersed as required by the Winnipeg Trails Association.

## Eligible Projects

Maintenance, or routine maintenance, consists of day-to-day or regular activities (Priority 2 and 3) undertaken to make the trail passable and enjoyable for users. Examples may include:

- Resurfacing/patching along deteriorated tread way
- Mowing, trimming, brushing
- Bridge, furniture, shelters and other structural maintenance/repair (ex. replacing rotten/damaged material; painting furniture and other structures, etc.)
- Signage replacement/repair

## Non-Eligible Projects

The following will not be considered for either refurbishment or maintenance funding:

- Trail development (assistance may be available through the existing Trail Development Program)
- Payment for volunteer labour
- Marketing
- Other uses that would not relate to the permitted uses outlined above

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## Eligible Maintenance Costs

- Materials for resurfacing or structural repair
- Fuel for maintenance equipment
- Plants (as related to trail repair and/or enhancement)
- Paint
- Equipment repair (for equipment owned by a trail association) and rental
- Other costs associated with routine maintenance that are deemed appropriate by the MRTA

## Ineligible Maintenance Costs

- Purchase of land, tools and equipment (it is expected that individual trail associations will raise money to purchase their own equipment)
- Legal fees
- Consultant's fees
- Finance charges, meals and travel costs
- Expenses incurred prior to the formal approval of funding for the project
- Volunteer labour

## Payment of Maintenance Funding

The MRTA will fund Manitoba TCT associations' maintenance activities to no more than the maximum annual eligible amount per trail association provided that Manitoba TCT associations submit the following:

- A 3-year maintenance plan/budget (identifying foreseen maintenance activities and costs over this 3-year period) to enable maintenance funding eligibility
- To be eligible to continue to receive annual maintenance funding the TCT trail associations must annually submit :
  - a brief maintenance report that includes:
    - A log of costs (supported by photocopied receipts);
    - Tasks completed over the course of the year;
    - Adjustments to the maintenance plan (if any)
  - a completed trail condition survey (of the whole length of trail within the association's jurisdiction)

Successful maintenance applications will be paid at 100% of the approved funding prior to the maintenance year.

Members of the Grants Committee may visit maintenance sections to review progress and verify that maintenance is being undertaken. Groups not complying with maintenance obligations may have subsequent applications withheld as determined by the Grants Committee.

The amount approved may be less than the amount requested by the applicant.

## Application Deadlines

Maintenance applications will be assessed annually applications must be submitted by January 31<sup>st</sup>.

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## 2. MRTA REFURBISHMENT PROGRAM

Considering the nature of most refurbishment projects reported and the general characteristics of the TCT in Manitoba as a whole, a reasonable allotment of annual funding towards refurbishment projects by the MRTA would be \$15,000. This level of funding is not intended to address all refurbishment concerns in a given year, but rather the funding should be allocated on a priority basis as determined by the MRTA.

### Refurbishment Considerations

- Which projects provide the greatest benefits to trail users, especially by reducing risks or hazards by improving trail safety?
- Which projects provide the best possible solution considering each trail's level of use?
- Which projects have the clearest planning and coordination prior to proposing the project and/or overall commitment to maintain the project once it's built?

Funding allocations will depend upon factors such as:

- Type(s) and total refurbishment applications received
- Available funding and ability to replenish refurbishment and maintenance funding

### Eligible Projects

Refurbishment refers to repairing, reconstructing, replacing or restoring existing trail components that have been severely altered, damaged or destroyed either by way of severe neglect or catastrophic event(s).

Refurbishment projects will correct trail conditions/facilities that compromise user safety (Priority 1) and/or compromise the condition of the trail (Priority 2) in such a manner that the trail is impassable.

Refurbishments are intended to correct deficiencies on existing, developed trail in a cost-effective, reasonable manner that would provide for a safe level of passage.

Examples may include:

- Repair/redesign of wash-out sections
- Reconstruction of bridges, culverts and other structures
- Trail reconstruction
- Removing fallen trees and debris (ex. from a storm)

### Eligible Refurbishment Costs

- Reasonable fees for technical services such as landscape architecture and engineering (up to a maximum of 10% of the total budget)
- Wages and benefits (ex. administration costs) directly related to the refurbishment project
- Materials and equipment rentals
- Mileage (billed at the current Provincial rate) directly related to trail refurbishment

### Ineligible Refurbishment Costs

- Purchase of land, tools and equipment
- Legal fees

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- Finance charges and travel costs (such as meals and hotels)
- Expenses incurred prior to the formal approval of funding for the project

## **Funding**

MRTA refurbishment grants should be used as a one-time financial allocation to correct refurbishment issues along the TCT in Manitoba.

Support through the MRTA/TCT Refurbishment Program will not exceed 75% of the eligible refurbishment costs provided that the project is located outside city boundaries. Projects within city boundaries will be provided up to 50% of eligible project costs.

Projects may include other provincial government funding sources and gifts in kind, but these are not eligible for cost sharing under the Program. The contributions of Crown Corporations, such as Manitoba Hydro, are eligible for matching.

The value of donated materials, loaned equipment and machinery and volunteer labour can be calculated into the applicant's share of the project costs, provided that a written estimate from an outside source substantiates the amount budgeted. Applicants are required to obtain all necessary approvals and permits and submit them with their application.

## **Payment of Refurbishment Grants**

- Successful projects will receive 50% of approved funds upon approval.
- The remaining 50% will be based upon project completion and a completed financial activity report, including cancelled cheques, receipts and gifts-in-kind and volunteer labour.

Members of the Grants Committee may visit each project to review progress and to verify that the project has been completed as claimed in the final report. Groups not complying with refurbishment obligations may have subsequent applications withheld as determined by the Maintenance and Refurbishment Committee.

The amount approved may be less than the amount requested by the applicant.

## **Application Deadlines**

- Applications for refurbishment projects can be submitted at any time.

## **Program Form: to be developed**

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## 3. TRAIL INVENTORY/TRAIL AUDITS

In the development of the maintenance study information gaps have been noted throughout the entire process. The MRTA intends to develop a full inventory over the trail and its condition; associations will be expected to collaborate with the MRTA in the development of the inventory.

### Trail Inventories

A detailed trail inventory provides information on the physical features and related facilities on or adjacent to the trail, located in meters or kilometers from the trail section start-point and indicated on a map. Trail inventories are used to identify and document the physical conditions of the trail and can be developed in conjunction with trail condition surveys. Physical characteristics or features provided in a trail inventory include:

- Trail classification (if applicable)
- Length
- Predominant surfacing
- Structures including:
  - Bridges
  - Facilities
  - Stairs
  - Boardwalks
  - Culverts
  - Rest areas and associated structures (benches, waste bins)
  - Safety concerns (wash-out or potential wash-out areas, cliffs)
  - Significant features (water bodies, archeological sites, historic sites)<sup>6</sup>

Trail inventories should be updated when inventoried features are modified. Updated and completed trail inventories provide trail managers with a detailed understanding of the trail, which can help when trying to quickly locate and address maintenance/ refurbishment issues.

A defined trail inventory will help the MRTA manage the trail over the long-term and make informed decisions towards allocating funding towards maintenance and refurbishment as trail resources, potential safety hazards and the extent maintenance by various parties will be better understood.

An approach to developing a trail inventory for the TCT in Manitoba would include having an independent trail expert evaluate the trail and catalogue key features using Global Positioning System (GPS) technology. Catalogued trail aspects and features could then be used in conjunction with existing information (i.e. base map information, land ownership information, information submitted to the MRTA from TCT associations such as trail condition surveys) to develop a GIS database and/or a series of maps that identifies the location of these features; the physical location of the TCT (road, sidewalk, etc.); and areas where the trail is actively maintained.

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## **Trail Audits**

A trail audit (or risk management audit) is a comprehensive inspection, encompassing the entire trail that is conducted to identify potential safety concerns in hopes of correcting the deficiency as soon as possible, thereby minimizing the risk to trail users. In instances where modern technologies, such as GPS inventorying of trail structures and/or safety concerns, have not been incorporated, comprehensive trail audits may be conducted approximately every 5 years and include photos of structures/deficiencies accompanied with detailed comments and carefully measured distances.<sup>9</sup> However, this process is time consuming and labour-intensive.

Although it may be necessary to do a comprehensive audit on occasion, modern technology has enabled trail organizations to have the ability to record some of this inventory information in more efficient manners. As a result, less detailed trail audits have been conducted while looking just at aspects of the trail that may pose safety hazards, while performing the audits more frequently (ideally every two years).

### **Incorporating Trail Audits along the TCT in Manitoba**

The extent and degree of a trail audit process for the TCT in Manitoba is dependent upon the completion of the trail inventory and the implementation of a monitoring program. Once it is clearly understood where there is oversight and general maintenance of the trail, the MRTA may decide it to be most effective to conduct a trail audit every 3-5 years in areas that do not receive regular maintenance or monitoring (gap areas), to ensure that these areas are free of potential safety hazards for future users. TCT associations could lead the trail audit process (within their respective trail sections) and apply for maintenance or refurbishment funding to help correct the unsafe conditions noted, or notify responsible organizations of the potential hazards.

## **4. ESTABLISH MAINTENANCE AND REFURBISHMENT ENDOWMENT FUND**

The MRTA is currently investigating the establishment of a maintenance and refurbishment endowment fund.