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Parks Canada
Asset Management Process

Recapitalization
Management
Process

Operations
Manual
& Trainer's Toolkit

RMP, the Operations Manual, accompanying video, trainer's toolkit, PC RMP and PC AMP software were developed by Architecture and Engineering for Parks Canada, Public Works and Government Services Canada.



Canadian Heritage
Parks Canada

Patrimoine canadien
Parcs Canada

Canada

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Processus de gestion de la recapitalisation
Manuel d'utilisation

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Introduction

1.0 Using The Manual

1.1 General

This operations manual contains details for the full implementation of the Recapitalization Management Process (RMP). The manual deals with the updating of asset condition data obtained from the Phase I implementation of RMP in 1992, and the evaluation of new assets or assets not previously inspected. It is intended to be used by Parks Canada's general works staff, architects and engineers.

The RMP establishes a consistent approach for recording the condition of assets and identification of resource requirements. It depends to a great extent on the experience and asset/site knowledge of the general works staff who are applying the process. This manual is designed to be used as reference material and covers in detail the completion of forms and how to rate assets and their components through the use of rating guides. This section titled "Using the Manual" describes the various parts of the manual, their application and use.

1.2 Part A - Overview

Part A outlines the background and objectives of RMP and the general approach to its application. It also includes definitions for all RMP terminology which is used in Part A and is essential to an understanding of the process.

1.3 Part B - RMP Procedures

Part B explains the process in detail and covers the specific information requirements for the following:

- inventory updating
- condition assessment
- completion of the rating report
- RMP standard reporting forms.

It also includes all RMP terminology which is used in Part B and is essential to an understanding of the information requirements of the process.

1.4 Part C - RMP Rating Guides

Part C contains detailed component condition rating guides for each of the asset categories. These guides are designed to be stand-alone units so that they can be removed and taken on site when an inspection is done. Each guide contains the following detailed information:

- asset-specific data definitions
- asset-specific rating guides
- asset component rating guides
- an overall asset condition rating guide
- component rating tables
- asset and component life span tables.

1.5 Index

An alphabetical list is supplied to help the user locate a particular RMP term within the manual.

1.6 Appendices

1.6.1 A - Replacement Cost Guide

This guide is provided to assist Parks Canada's technical staff in determining asset replacement costs. It offers one approach, and recognizes that other methods may be more suited to individuals or situations.

With this guide, the user will be able to establish consistent estimates of replacement costs for buildings, grounds, roads and utility systems within Parks Canada's parks, sites or canals. The remaining asset categories are unique in nature; they may require special knowledge to determine the replacement cost or they may have known values from existing data bases.

1.6.2 B - RMP Forms

Blank copies of the RMP Component Inspection Form and RMP Asset Summary Form are appended. These can be copied and used for asset inspection and rating. Complete details on how to complete these forms are contained in Part B.

1.6.3 C - DRPU-LDU Numbers

Every Parks Canada park, site or canal is assigned a unique Directory of Federal Real Property — Land Designator Unit (DFRP-LDU) number. These numbers are required in the asset inventory section of the rating report. If there are any questions regarding these numbers, please contact regional Realty Services or A&E Asset Management.

1.6.4 D - Primary Service Numbers

Service numbers are required to permit a correlation to be made between the fixed asset focus of RMP and the service focus of other Parks Canada functions. Park staff assign these service descriptors to their assets based on this list. For mixed use assets it is possible to apportion a percentage split to multiple service numbers.

1.6.5 E - Generic Rating Matrices

These generic matrices can be used in place of the more detailed rating guides contained in Part C. They would be used when the inspector chooses to assess the condition of an asset or its components, using his or her knowledge of the asset or professional experience.

1.6.6 F - RMP Asset Category Structure and Codes

The RMP asset category structure is summarized onto 2 sheets for quick field reference when inspecting an asset. At the back of the manual is a laminated copy which can be removed for field use.

2.0 Technical Support

The RMP project team is available to assist the user of this manual, if necessary. The service hours for this technical support are from 07:30 a.m. to 5:00 p.m. (EST). One of the following persons will be available:

John McBain, Project Manager (819) 997-9330
Mike Chettleburgh (819) 997-0510
Bob McAllister (819) 997-6292

For regional assistance the user may also contact the Regional Chief of Asset Management.

Atlantic

Sandy Hogan (902) 426-7506

Quebec

Robert Marcotte (418) 649-8149

Ontario

Tim Kirkby (613) 938-5972

Prairie

Peter Mayberry (204) 984- 3483

Western

Marty Martinson (403) 292-4708

Trainer's Toolkit

Trainer's Toolkit

A guide for Training and Orientation to RMP

1.0 Introduction

To simplify the implementation of the Recapitalization Management Process (RMP), a training program has been developed to assist Parks Canada staff in obtaining an understanding of the process. The training program is to include:

- 1) an overview of the Asset Management Process (AMP);
- 2) an instructional video entitled *The Way to Go with RMP*, which covers in detail the process of RMP;
- 3) a hands-on case study of a simple building; and
- 4) an Operations Manual.

2.0 Background

This training program was developed with input from General Works' staff in Point Pelee and Kouchibouguac National Parks. Their valuable insight and suggestions during the pilot sessions on RMP training helped determine the content of the instructional video and the approach to RMP training.

The following points highlight the main findings of the RMP pilot training.

The participants favoured the hands-on approach, using experienced staff as opposed to stand-up lectures.

The participants preferred a team approach for the learning process.

The participants suggested the use of a trainer for the instructional sessions with the video used as a support tool. The video would also be ideal as a self-study resource.

It was recommended that a case study of an asset be used to demonstrate the process before RMP is implemented in the field.

It was recommended that a full walk through be conducted of RMP documentation.

3.0 Objective of Toolkit

The objective of this toolkit is to assist the trainer in the delivery and use of the materials to convey an understanding of the process RMP.

Special Note: The material is designed to assist the user(s) in obtaining an understanding of the process of RMP: how RMP functions, the steps required for its implementation, and how the forms work. Orientation and training in the use of the software of RMP in PC-AMP will be found in the PC-AMP manual, along with the training schedule established to orient users to the software.

4.0 Contents of Toolkit

The contents of this toolkit are intended to guide the trainer in the delivery of training to groups. It includes presentation material which can be used for producing overheads for use in the training. The instructional video *The Way to go with RMP*, is also to be made available for the individual to use at work or at home as a self-study.

In addition to the video, the toolkit includes:

- key points to remember for group presentations;
- suggestions on the curriculum to follow for orientation training;
- the important features of RMP;
- how to apply RMP; and
- how to use the Operations Manual.

5.0 Group Presentations

The following points should be taken into account when planning a group training session.

- Ensure that the room is of adequate size, and has sufficient seating to accommodate the number of persons attending the session,
- Check that the TV monitor is large enough to accommodate viewers in the back of the room.

Ensure that there are sufficient numbers of manuals, forms, reports and guides for handouts. Also have on hand a supply of clipboards and pencils for the case study.

Have a list of resource people in your site or region, with phone numbers preprinted for distribution, who will be available to the participants should they require help later during implementation.

Ensure that the trainer's toolkit (i.e., Operations Manual and Video) is readily available to staff in order for them to have on going access to the material: identify a central storage location with log-in and log out procedures if necessary.

Ensure the support of General Works Manager for implementation and continued use of RMP.

It is important to schedule the training to start as close as possible to the implementation of the RMP, as the participants will tend to forget information over time. Training staff will not be worthwhile without the positive reinforcement of putting into practice what has been learned.

5.0 Curriculum

Based on the findings from the pilot sessions on training, the following curriculum is suggested for a one day orientation training session.

5.1 Introduction

Allow 10 minutes for this session. All participants in the training session should identify themselves, and give a brief explanation of their duties. The objectives of the training should be explained in detail, along with the proposed curriculum. A list of names and telephone numbers of Headquarters and Regional resource staff should be prepared and given to participants.

Emphasize that at the end of the day's session all participants should feel confident that they will be able to apply RMP procedures to assets in their park.

5.2 AMP Overview

Allow 20 minutes for this session. It is anticipated that either a Headquarters or Regional resource person will be present to make this presentation. However the trainer will be made fully conversant with the Asset Management Process, in the event that the resource person is not available.

The overview will cover the following points.

- Why AMP?
- What is it?
- Why call it a process?
- What does AMP contain?
- What are the tools of AMP?
- What are the benefits of AMP?
- Why it is required now?

Recommended presentation material for this session is contained at the end of this toolkit.

5.3 Orientation Video

While the video has a running time of 35 minutes, allow 60 minutes for this session. The video is divided into seven sections covering various topics and information about the RMP process. It is recommended that the entire presentation be viewed at least once. A review of the individual sections can then be made. Keep in mind, the video can be stopped at any point during the presentation for group discussion or to answer any questions. It is recommended that participants be encouraged to ask questions as they arise. The video should be stopped and rewind as necessary before continuing.

The seven sections of the video have been divided below and referenced by both video counter and real time, to enable fast forwarding to the topic which most interests the user. The sections are identified as follows. Be sure to reset the counter to zero at the start of the video.

Counter		Real time	Section
008-038	or	00:00 - 01:00	Quick Tour - Overview
040-203	or	01:00 - 05:05	Background on RMP
204-294	or	05:05 - 07:20	AMP - The Unifier
295-344	or	07:20 - 08:40	RMP - The Process
345-923	or	08:40 - 24:00	How RMP Works
924-1159	or	24:00 - 30:35	Field Trip - A Case Study
1160-1312	or	30:35 - 34:55	Review
1313-1318	or	34:55 - 35:30	Where to Contact for More Information

A Manager's Overview video (9 mins) has also been prepared which is excerpted from the overall RMP video. It is a quick overview useful for application to nontechnical users, to orient them to the concept and content of RMP. If you require a copy, please contact Chief, Asset Management, A&E National Office, at (819) 997-0481.

5.4 Coffee Break

Allow for a 30 minute working coffee break to have an informal demonstration of the RMP computer software.

5.5 Operations Manual and Applying RMP

Allow 60 minutes for this session. A cursory review of the four sections of the manual should be carried out, to familiarize the participants with its contents.

A full walk through should then be carried out of all documentation pertaining to the evaluation and condition rating of assets. The following material contained in the manual should be reviewed in detail:

- The four possible paths to follow in implementing RMP.
- Asset Condition Report
- RMP Component Inspection Form
- RMP Asset Summary Form
- Rating Matrices
- Field Guides

5.6 Case Study

Allow 30 minutes for preparation. For the case study a simple building, easily accessible, should be selected. Participants should be divided up into teams with care taken to ensure that each team has a good mix of persons with differing work expertise. Ensure that each team has the correct forms and supporting literature.

At the start each team should be assigned a different component of the building to evaluate, however the whole asset is to be covered by each of the teams. Allow 90 minutes for the evaluation session.

5.7 Debriefing and Summary

The balance of the day should be used for debriefing, analyzing the results and summarizing the day's events. A general question period should be held before ending.

5.8 Resource Material

Overheads for the AMP presentation, (contact your regional office of A&E).
Other overheads can be made from literature contained in the Operations Manual.

Part A: RMP Overview

Part A - Overview

1.0 Introduction

1.1 Background

Parks Canada has a fixed asset inventory of more than 10,800 individual assets, with a replacement value of approximately \$ 6 billion (\$ 1992). These assets range widely in age and location. Site managers are responsible for maintaining the assets in a cost effective manner by forecasting the appropriate resources and actions. It is widely recognized that site managers and their staff are meeting these responsibilities through their dedication and commitment.

To support management decision making and forecasting, particularly at the site level, Parks Canada is implementing the Recapitalization Management Process (RMP). RMP is one of four components of the Asset Management Process (AMP). This process combines maintenance and recapitalization information for the technical management of Parks Canada's fixed assets. The other three components within AMP are the following:

- Maintenance Management System
- Equipment Management Information System
- Energy Data System.

1.2 Objective

RMP is designed specifically to help managers oversee, manage, and forecast the capital funds management of park fixed assets. Data on assets is collected by RMP to answer five basic questions:

- What is the extent of the fixed asset inventory?
- What condition are the assets in?
- How urgent is the need to carry out the repair work?
- How much money is needed to put these assets into satisfactory condition?
- In what year will money be required to carry out the work?

It gives site managers and their staff the ability to *simply and effectively* express the condition of their assets and specify their funding needs for the recapitalization of assets.

RMP can also help in the partnership management of assets by clearly communicating condition information and funding requirements to each party of the partnership.

With RMP, one source of technical information is used for management decision making, project justification, and multi-year planning. In effect, the use of RMP multi-year planning, permits the creation of forecasts that provide a clear picture of what lies ahead.

The day-to-day management, storage and retrieval of information can also be done simply and easily.

Asset condition information is used for decision making throughout the organization. With RMP, this information can be communicated to and shared with each part of the organization, from park to region, from region to national office, and to central agencies, such as Treasury Board.

1.3 Limitations

RMP is limited to the recapitalization of major components and does not identify inconspicuous safety hazards, design deficiencies, capacity problems, obsolescence, the ability of an asset to serve its current versus its originally intended purpose. These problems constitute a separate demand for capital dollars than recapitalization projects that are intended to repair component deterioration.

Another limitation is that the ratings compare only the condition of the asset to its original condition and not to current standards. It is assumed that routine maintenance will repair minor problems.

2.0 Definitions

Asset Management Process

This is a method through which Parks Canada can effectively manage its fixed assets. As a management tool, it integrates maintenance and recapitalization along with energy and equipment management.

Component

Components are those portions of an asset which, for reason of function, material or construction methodology (e.g., building components: foundation, structure and roofing), are definable subassemblies of the complete asset.

Fixed Asset

An immovable, constructed, physical object, such as a road or building, which is made up of components.

Recapitalization

For contemporary assets, it is the replacement with a contemporary equivalent or the reconstruction of the asset or its components.

For built heritage assets, it is the stabilization and limited restoration of undeveloped assets, or the periodic renewal and reconstitution of components to ensure the preservation of the asset's historic form, material and integrity, as required by program policy.

Major or complete recapitalization is work that represents a substantial percentage (according to the asset category) of the asset's replacement cost, or work that increases the asset's life span. The option to remove or reconstruct the asset would generally be considered when a major or complete recapitalization project is considered.

Replacement Cost

This is a class "C" estimate or better, in current year dollars. For contemporary assets, it is the total estimated cost to replace or reconstruct an existing component or asset with a contemporary equivalent, according to applicable codes and standards. It includes all costs to complete the work on site (e.g., mobilization and removals) in current year dollars, including architectural and engineering costs. It does not include new initiatives or expansion of the existing components or assets.

For heritage built assets, it is the total estimated cost to reconstruct or replace the existing asset of its components with a replica that conforms to the shape, material, and appearance of a specific period. It includes all costs to complete the work on site, including architectural and engineering design and supervision costs. It does not include new or expanded visitor services, interpretive media or facilities.

Detailed asset-specific replacement cost definitions are contained in Part C.

Estimate Classification

Replacement costs prepared in accordance with this manual are considered to be class "C" level, as defined by Treasury Board Manual - Information and Administrative Management, Procurement and Project Management, Appendix A - Definitions, Class C cost estimate (91-07-01)'

The scope of this estimate covers the life-cycle costs of the preliminary solution to the statement of requirements, including a preliminary analysis, in consultation with appropriate common service organizations, of sources of supply and production and technological readiness. It must be sufficiently accurate to justify investment decisions.

3.0 RMP Process

3.1 General Approach

RMP establishes a consistent approach for the inspection and identification of the capital needs of assets, based on their condition. This approach of inspection and condition assessment uses basic rating criteria which apply to all categories of fixed assets. It is performed on a regular basis, and with increasing frequency as an asset's condition deteriorates.

It provides site managers with the following:

- a process with which to maintain accurate, consistent and up-to-date information on asset condition in a common format
- a method and medium by which to record and forecast aspects such as work required funds required and timing, and to contribute to historical and trend analysis.

RMP gives site managers access to asset condition information which can be used for the following purposes in Parks Canada's program planning:

- to state the case of needs for funds
- to make suitable and sound operations and investment decisions for short-, medium- and long-term planning
- to provide field input to program decisions.

RMP uses three types of inspection to collect condition data on any component of an asset or on the asset as a whole. A condition rating level is assigned to each of the rating criteria. These ratings are then used to determine the overall asset condition.

3.2 Inspections

There are three types of RMP inspection for condition rating. All new assets or existing assets not previously inspected will initially have a type "1" inspection. Existing assets previously inspected will also have a type "1" unless recommendations for a higher type were made at the time of inspection.

- Type 1 The sole responsibility of General Works.
- Type 2 Performed by Architecture and Engineering specialists and General Works.
- Type 3 Considered unique in nature, it requires special knowledge, training or equipment.

General Works staff will participate in all inspections. Complete details on these types will be found in Part B of this manual.

3.3 Rating Criteria

There are four basic rating criteria for RMP which are used to rate the condition of components and the overall condition of an asset. Inspectors assign one of 4 ratings (good, fair, poor or closure) to each criteria. A description of the criteria is as follows.

Health and Safety (H&S)

This rating indicates the stability and performance of an asset or its components, as well as their condition and any potential threat they pose to the safety and health of the user or employee.

Risk to Asset (RTA)

This rating measures the consequences to the rest of the asset or adjacent assets if the condition of an asset or its components is not addressed.

Level of Service (LOS)

This rating indicates the ability of an asset or its components to perform the role for which it was designed and to the level or quantity of use for which it was intended.

Urgency (URG)

This rating is an indicator of the urgency of the asset's condition rating for one or more of the other three criteria.

Detailed "generic" descriptions of these rating criteria are found in Part B. Detailed asset-specific detailed descriptions are found in Part C. Generic rating matrices are found in Appendix E.

3.4 Condition Assessment

To assess the condition of an asset or its components, a rating method has been developed which consists of rating guides. There are two types of guides and four rating levels for each of the rating criteria. Use of the guides will produce consistent condition ratings on a system-wide basis.

Asset Rating Guides

These guides contain basic criteria that briefly describe, for each rating level, the condition and defect characteristics which apply to all asset categories. Detailed descriptions of these generic criteria are found in Part B.

Component Rating Guides

These guides are asset specific (i.e. separate for buildings, grounds, roads etc.) and contain details on the component defects for each asset category and rating level. They cover only those defects normally found in the component. If a defect is not covered in the guide, the generic rating guides found in Appendix E are to be used.

3.5 Recapitalization Cost

The total repair costs to an asset are determined from the individual component recapitalization forecasts. These forecasts are based on known component repair costs or on the component's life span in years and its percentage of the total overall asset replacement cost. The timing of recapitalization work is established from the condition ratings assigned to either the asset or the component. For further details, see Part B.

3.6 Asset Replacement Cost

These costs can be determined by updating case histories or data from the facility evaluation completed in 1982. The replacement Cost Guide can also be used. This guide consists of unit costs based on Toronto, with tables containing geographic, project and site-specific indices to allow for adjustment to specific sites. The guide is contained in Appendix A.

3.7 Reports

The data obtained from an RMP inspection is input into the AMP/RMP software, from which recapitalization reports are produced. Reports can be prepared which tabulate condition and recapitalization needs and costs by year. They can be produced by asset category, by component or by management structure. Reports can also be produced to suit the specific needs of an asset manager.

Please consult the AMP Software Manual for further direction.

Part B: RMP Procedures

Part B - RMP Procedures

1.0 Definitions

Health and Safety (H&S)

A rating criteria used to measure the stability and performance of an asset's components, the condition they represent and any potential threat they pose to the safety and health of the user or employee. Potential threats include dangerous conditions created by asset deterioration or damage, e.g., walkway structures and health hazards such as bacteria or asbestos.

Risk to Asset (RTA)

A rating criteria used to measure the consequences to the rest of the asset or to adjacent assets if the condition of a component is not addressed. For example, a leaking roof will damage insulation, drywall and electrical components.

Level of Service (LOS)

A rating criteria used to indicate the ability of a component or asset to perform the role for which it was designed and to the level or quantity of use for which it was intended. The rating is to serve as an indicator of an asset's capacity when its' rating for H&S and RTA is less than "normal".

Urgency (URG)

A rating criteria used to indicate the urgency of the condition in which the asset has been rated in one or more of the other three criteria ranges.

Overall Asset Condition (OAC)

This is the rating assigned to an asset, based on the H&S, RTA and LOS rating criteria.

Major Recapitalization

This is work carried out on a major component or a portion of an asset that resulted in a change of form, or use, or substantially increased the asset's life span.

2.0 Asset Inventory

Update the RMP inventory before starting the asset inspection and rating. Since new assets are continually being added to the park system and existing ones being modified, it is essential to work with up-to-date information.

Phase I, the partial implementation of RMP, used an inventory generated from the asset inventory contained within PC-MMS. In addition, the scope of Phase I required evaluating only assets that totalled 80% of the replacement cost of the asset base. For full system implementation, the General Works Managers have the option of expanding their inventory to include all assets.

3.0 Condition Assessment

3.1 General Comments

For RMP implementation, an asset is considered to consist of components which are to be rated according to the four basic criteria of Health and Safety, Risk to Asset, Level of Service and Urgency. In Part C of this manual, the major components for each asset category have been identified. However, when rating an asset, it is not necessary for the site managers to include all the components, but only those that they wish to track, or those that do or will require capital funds.

3.2 Inspection Types

Type 1

This type of inspection is the sole responsibility of site managers or their staff. Inspections are visual, with any testing to be minor in nature and requiring simple equipment, e.g., penknife. The identification of any possible serious H&S and RTA issues are to be referred to Type 2 for further inspection. Changes to the frequency of inspections cannot be made. Inspectors should have either a relevant trade certificate or sufficient experience to ensure competence.

Type 2

This type of inspection is carried out by designated A&E specialists along with site managers or their staff. Inspections are mainly visual, but simple material testing equipment may be needed. Possible H&S and RTA issues are resolved with the input of A&E specialists. Recommendations to shorten the time between inspections can be made, if based on H&S or RTA issues. Resources for doing the work may come from A&E regional or national office, PWC or consultants.

Type 3

This type of inspection is considered unique, with inspectors needing specialized qualifications or training. Specialized equipment may be required, e.g., remote cameras for utility system assessment and Dynaflex for pavement strength. The need for this type of inspection and the use of any specialized equipment is to be determined by A&E specialists in consultation with the site managers. Resources for doing the work may come from A&E regional or national office, PWC or consultants.

3.3 Inspection Criteria

To be cost effective, the type and frequency of inspections should be based on the following criteria.

1) Condition

Assets or their components that are in good condition require less frequent inspections than those in fair or poor condition.

2) Inspection Type

The use of professional or a specialist's evaluations is appropriate to identify defects beyond the skills of field staff. Type 2 & 3 inspections should be carried out with General Work's participation.

3) Regulated Inspections

Inspections required to meet federal or provincial regulations. For an asset to receive a C or D rating, it must receive either a Type 1 or 2 inspection. Type 3 inspections are done either as result of a Type 2 inspection or as mandated by an authority. An example would be pressure vessels.

3.4 Rating Criteria

These basic criteria apply to all asset categories and are considered to be generic, as they briefly describe an asset's condition for each of the four rating levels.

More detailed asset-specific rating criteria has been developed in the form of component rating guides which give details on individual component defects.

These guides are found in Part C of this manual and are designed to stand alone in that they can be removed and taken on site when an inspection is performed.

Copies of the generic rating matrices can be found in appendix E.

3.4.1 Health and Safety Rating

A Good or Normal Risk

There is no exposure to hazards or injuries other than day-to-day risk associated with normal operation.

B Fair or Minor Risk

There is a low probability of exposure to hazards or accidents that could result in non-disabling injuries.

C Poor or Significant Risk

There is a high probability of exposure to hazards or accidents that could result in non-disabling injuries.

D Closure or High Risk

There is a definite probability of exposure to hazards or accidents that could result in disabling injuries. A closure rating requires Parks Canada's personnel to take immediate action.

3.4.2 Risk to Asset Rating

A Good or Normal Maintenance

There is normal wear and tear with no noticeable reduction in stability or performance. The asset is maintained through routine procedures.

B Fair or Minor Deterioration

There is a slight loss of stability or performance, which will increase if corrective work is not done.

C Poor or Significant Deterioration

There is a significant loss of stability or performance. The original design standards are no longer being maintained. If corrective work is not done, rapid deterioration will occur.

D Closure or Major Deterioration

There is a critical loss of stability or performance. Operation of the asset is substandard and should be suspended. Other assets and components are exposed to an increased rate of deterioration or prone to failure as a result of this condition.

3.4.3 Level of Service Rating

A Good or Normal Operation

The asset is functioning and performing as designed.

B Fair or Reduced Operation

The asset has minor restrictions and operates at only 75% capacity. The asset is still capable of fulfilling its function even with minor disruptions and despite some annoyance.

C Poor or Restricted Operation

The asset has major restrictions and operates at less than 50% of its capacity.

D Closure or Non-operational

The asset or component is inoperable or unacceptable for operation, or the asset is not operating to an acceptable capacity.

It is important to note that ratings of this category do not address increased demand or changing needs.

3.4.4 Urgency**A Good or No immediate Requirements**

Normal O&M procedures are required to maintain an acceptable condition in the near future.

B Fair

The required work should be carried out within 3 to 5 years.

C Poor

The required work should be carried out within 1 to 2 years.

D Closure or Immediate Action Required

The work should be carried out immediately. The operation of the asset is lost due to failure or closure.

3.4.5 Overall Asset Condition

The OAC is determined from the ratings assigned to an asset or its components for the H&S, RTA and LOS rating criteria. Generally the worst condition of a major component determines the rating for the asset however guidelines for determining the OAC for each asset category are found in the rating guides contained in Part C.

3.5 Inspection and Rating Frequency

The following table of inspection frequencies are recommended for RMP use.

Table A: Inspection and Rating Frequencies

Asset Category	Type 1 (time between inspections)	Type 2 (time between inspections)
Buildings	If OAC is A: 5 years	If OAC is B: 3 years
Grounds	If OAC is A: 5 years for surfaces, structures, campsites and class B bridges, and 3 years for turf areas, boardwalks, site furniture, planted areas, fences and drainage If OAC is C or D: Every year for all assets	Determined by site
Utilities	If OAC is A: 5 years for above ground sections, and 10 years for buried sections, with TV inspections every 10 years If OAC is B: 3 years for above ground sections, and 5 years for buried sections If OAC is C or D: Every year for all assets	Determined by site
Roads	Every year for all roads	PMS survey every 2 years for paved roads
Marine	If OAC is A - 5 years If OAC is B - 3 years If OAC is C or D - Every year	Determined by site
Bridges	Every year for fixed bridges	Every year for moveable bridges If OAC is B: Every year for fixed bridges. (TYPE 3: Every 3 years if OAC is C or D)
Fortifications	If OAC is A: 5 years for all assets If OAC is B: 3 years for all assets If OAC is C or D: Every year for all assets	Determined by site
Monuments and Plaques	If OAC is A: 3 years If OAC is B: Every year	If OAC is C or D

4.0 RMP Process

4.1 Implementation

There are four possible paths for the site managers to follow in implementing RMP for an individual asset. The four paths are shown graphically in figures 1 and 2. Which path is followed depends on whether or not the asset is in the database, and on the site manager's decision to inspect, rate condition and forecast requirements at the component level of detail, or simply for the overall asset.

Path 1 - Figure 1

These steps are to be followed for an asset which is in the database and is to be rated by components.

1. Obtain the latest printout of the "Asset Condition Report" (see fig. 3 - Asset Condition Report) from the database, using PC RMP software.
2. Determine the level of detail for the inspection (i.e., by component).
3. Identify those components to be inspected.
4. Inspect the components, rate their condition and determine the overall asset condition, entering the data on the "RMP Component Inspection Form" (see section 5.0 Forms Completion).
5. Enter the information into the database using PC RMP software.

Path 2 - Figure 1

These steps are to be followed for an asset which is in the data base and is to be rated as an asset.

1. Obtain the latest printout of the "Asset Condition Report" (see fig. 3 - Asset Condition Report) from the database, using PC RMP software.
2. Inspect the asset, rate its condition and determine the OAC. Changes to the existing asset data are to be made on the "Asset Condition Report".
3. Enter the changes into the database using PC RMP software.

Figure 1

Flow chart for the implementation of RMP for assets previously rated (e.g. RMP Phase 1):

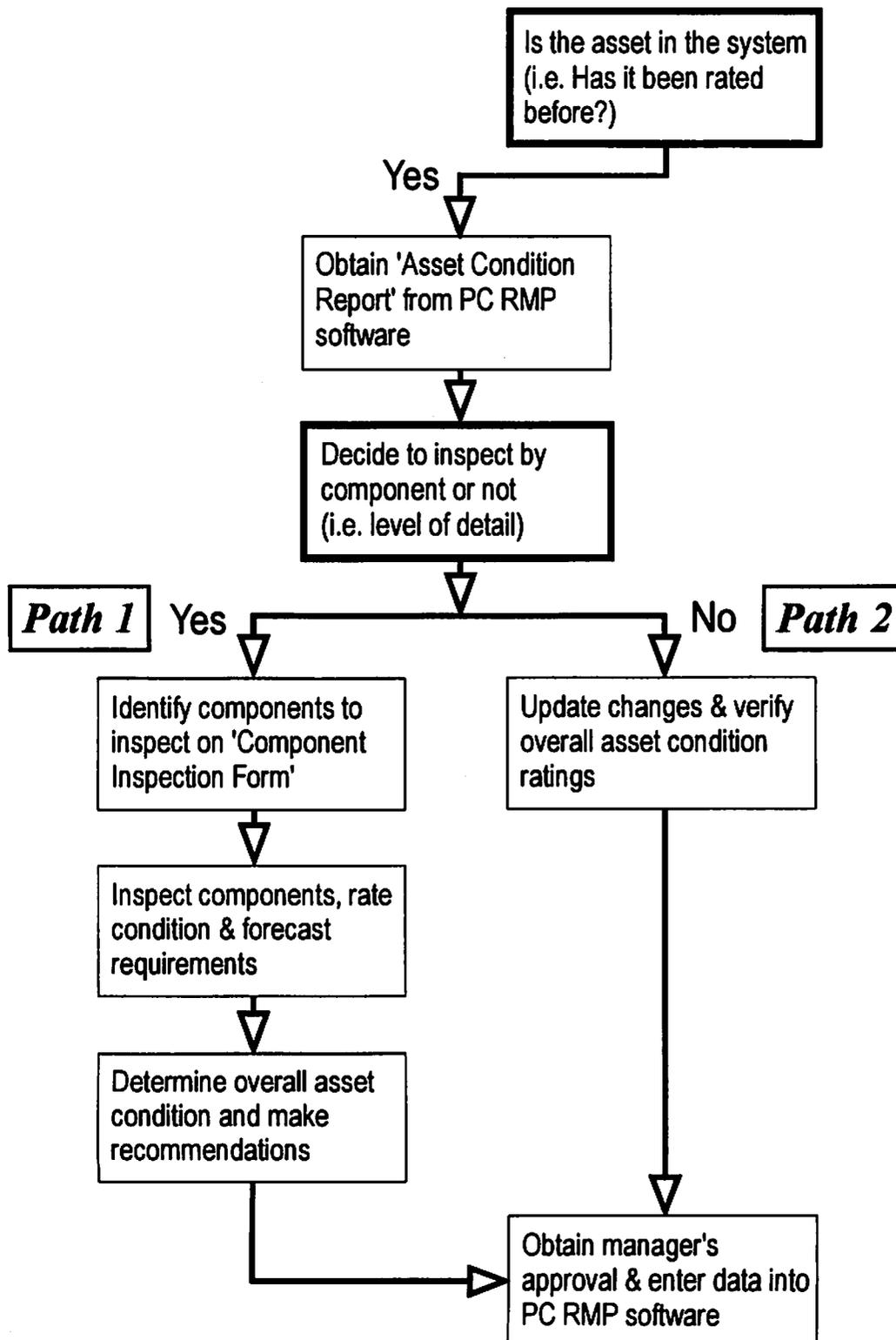
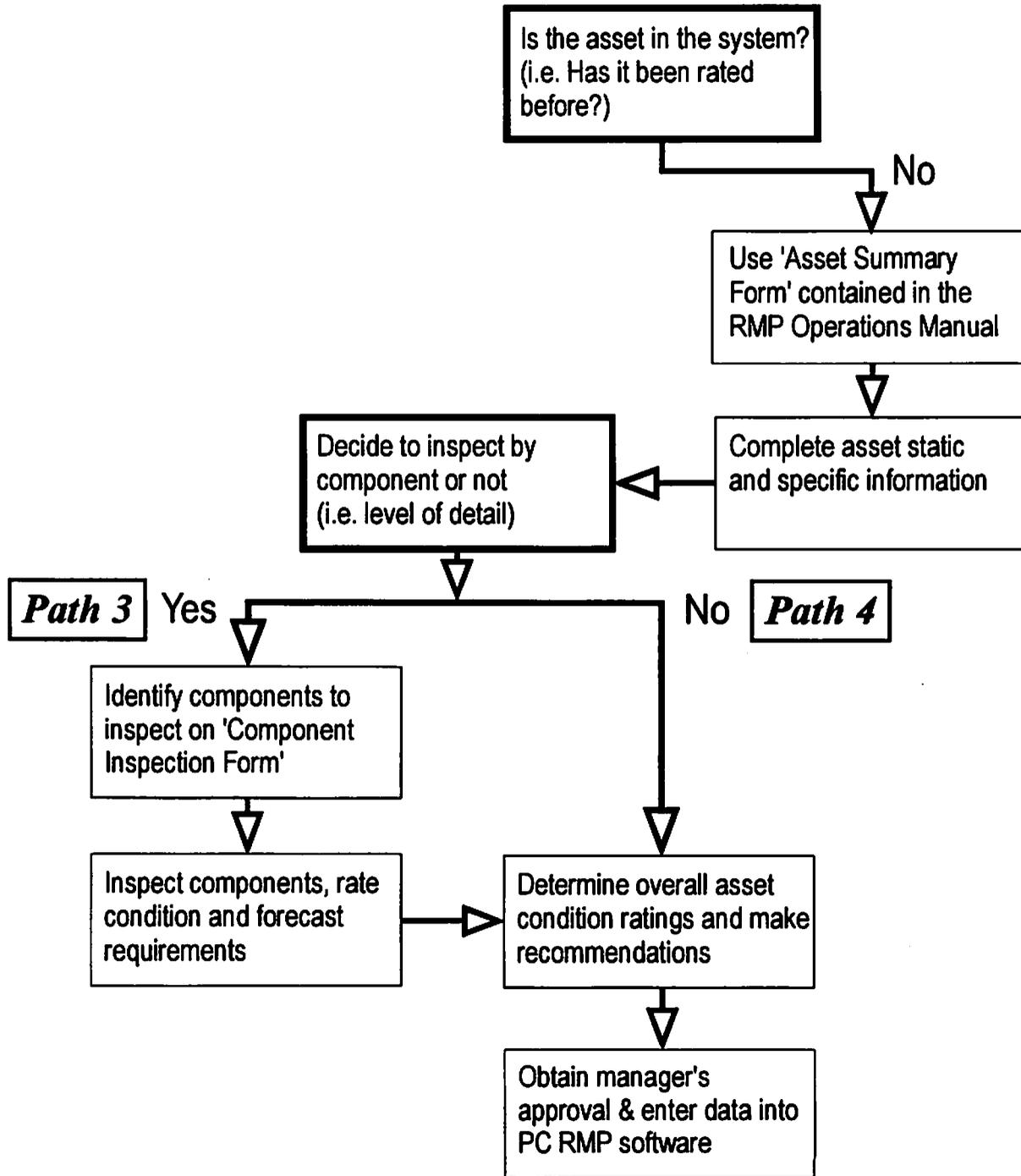


Figure 2

Flow Chart for the implementation of RMP for new or unrated assets:



Recapitalization Management Process
Asset Condition Report

Asset Inventory	
Park/Site/Canal : 8620	POINT PELEE Active
Asset: 11001	VISITOR CENTRE BUILDING
Category: A Buildings	
Type : D	Public Use
Sub_type: B Visitor Centers	
Year of Construction: 1966	() Actual () Estimated
Year of Acquisition :	
Replacement Cost (K\$): 1,560	Year: 1993 Class of Estimate: C
Related Facility Name: VISITOR CENTRE	
CAIS Code : 8620-11000	Management Unit: 1000
FRP/LDU No.: 10667	Cultural Resource Category:
Park Management Plan Zone:	Primary Service Number:

Asset Condition Rating													
<table style="width: 100%;"> <tr> <td style="text-align: center;">Rating</td> <td style="text-align: right;">yy/mm/dd</td> </tr> <tr> <td>Health & Safety : A</td> <td style="text-align: right;">Date : 92/01/06</td> </tr> <tr> <td>Risk to Asset : A</td> <td></td> </tr> <tr> <td>Level of Service : A</td> <td style="text-align: right;">Life Span : 50</td> </tr> <tr> <td>Urgency : A</td> <td></td> </tr> <tr> <td>Overall Asset Condition : A</td> <td></td> </tr> </table>	Rating	yy/mm/dd	Health & Safety : A	Date : 92/01/06	Risk to Asset : A		Level of Service : A	Life Span : 50	Urgency : A		Overall Asset Condition : A		
Rating	yy/mm/dd												
Health & Safety : A	Date : 92/01/06												
Risk to Asset : A													
Level of Service : A	Life Span : 50												
Urgency : A													
Overall Asset Condition : A													
Rated By : FRANK AND LARRY AND BOB	Type: 1												
Reviewed By : BRUCE HORAN													
Date (yy/mm/dd): 93/12/09													
Recommended Date of Next Inspection: 98/06/01	Type: 1												
Base on Asset Condition, Complete Asset Repl. Recommended: () Yes () No													
PIP #:	Cost (K\$): 0												

Asset Specific Information		Buildings
Gross Floor Area :	0 m ²	Volume : 0 cu. m
Number of floors :	0	
FHBRO Report # :		FHBRO Designation :

OAC comments:
SEE INDIVIDUAL COMMENTS IN COMPONENTS.

Major Additions & Renovations				
PIP #	Cost (K\$)	A/E	Year	Description

Fig. 3: Asset Condition Report

Path 3 - Figure 2

These steps are to be followed for an asset which is not in the database and is to be rated by components.

1. Obtain a copy of the "RMP Asset Summary Form" (see 5.0 Forms Completion).
2. Complete the "Asset Inventory" and "Asset Specific Information" portions of the form.
3. Determine the level of detail for the inspection (i.e., by component).
4. Identify those components to be inspected.
5. Inspect the components, rate their condition and determine the OAC, entering the data on the RMP Component Inspection Form.
6. Complete "Asset Condition Rating" portion of the "RMP Asset Summary Form".
7. Enter the information into the database using PC RMP software.

Path 4 - Figure 2

These steps are to be followed for an asset which is not in the data base and is to be rated as an asset.

1. Obtain a copy of the "RMP Asset Summary Form".
2. Complete the "Asset Inventory" and "Asset Specific Information" portions of the form.
3. Determine the level of detail for the inspection (i.e., by asset).
4. Inspect the asset, rate its condition and determine the overall asset condition, entering the data in the "Asset Condition Rating" portion of the "RMP Asset Summary Form".
5. Enter the information into the database using PC RMP software.

5.0 Forms Completion

There are two RMP forms, the "RMP Component Inspection Form" and the "RMP Asset Summary Form" (see Appendix B). The Component Inspection Form is used to record asset component data when they are initially entered into the database or for updating existing asset data at the component level. The Asset Summary Form is used to record summary asset data when they are initially entered into the database.

5.1 RMP Component Inspection Form

This form is used to inspect and rate an asset by components. Remember, the type and number of components to be inspected is optional. The site manager must determine which components will be inspected, rated and have recapitalization requirements forecasted.

Select the components from the asset inventory structure contained in the manual or as shown on the "Asset Category Structure & Codes Field Guide", enter the codes and record the results of the inspection. It is also important to note that the component codes are unique; no two are alike. Therefore, it is possible to mix components from different categories, for example, '2010 - Turf Areas' can be combined with building components, to allow you to tailor the inspection record to match the way you manage your assets.

To explain the use of this form, the completed form in figure 4 " RMP Component Inspection Form" is used as an example. Using a fictitious park and building asset and the component "1040 - Roofing", the form is completed as follows.

1: Park/Site Canal

Park, site or canal name and the four-digit identifier number.
Example entered as: [8720 Caribou N.P.]

2: Asset

The five-digit asset number along with the name by which the asset is commonly known. Note that if an asset is divided into sections, for example, Quebec fortification walls, each section should be treated as an asset.

Example entered as: [01605 Trade Shop]

3: Replacement Cost (K\$)

This estimate is obtained from the Asset Condition Report or the Asset Summary Form; it is expressed in thousands of dollars. To indicate a \$70,000 replacement cost, enter 70.0. If not available determine replacement cost estimate in accordance with appendix A "Replacement Cost Guide", or using case histories and/or A&E input

Example entered as: [70.0]

Fig. 4: RMP Component Inspection Form

Component		L.S. Year	R.C. %	Insp. Type	Ratings				Prev. Recap.		Forecast		Defects/Comments
Code	Description				H&S	RTA	LOS	URG	Year	K\$	Year	K\$	
1040	ROOFING	25	5	1	A	B	A	B	1970	1.0	1999	3.5	SLIGHT CURLING OF ASPHALT SHINGLES WITH SOME LOSS OF GRANULAR SURFACE
2060	PARKING LOT	30	10	1	A	A	A	A	1990	10.0	-	-	GRAVEL PARKING LOT PAVED IN 1990
					14				TOTAL RECAP:		15		16
OVERALL ASSET RATINGS:					A	B	A	B			3.5		OVERALL ASSET CONDITION: B
Rated by: 17 JOHN DOE												Date of Inspection: 93/0/5	

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4: Year of Construction

This date is taken from the same source as 'Replacement Cost', or the user's estimate of the actual year of construction for the entire asset.

Example entered as: [1945]

5: Component Code

Taken from the manual or field guide, the code is a unique identifier for each component type, and must remain unique to permit roll-up reporting for your park or site. For example, '1040' indicates 'Roofing'. It is possible to record more than one component of the same type for an asset. Use the same code for each duplicate component type. Refer to 'Component Description' for more information.

Example entered as: [1040]

6: Component Description

Enter the name of the component to match the component code. You may also add 30 characters of descriptive text that will be recorded in the software database. In this way, it is possible to record more than one component of the same type for an asset. For example, you may wish to record "1040 ROOFING - Asphalt shingle" and "1040 ROOFING - Cedar shakes" for an asset with mixed roofing materials. This capability may also prove useful for utilities and road assets.

Example entered as: [Roofing]

7: Life Span Years or L.S. Yrs.

This estimates the number of years between the original construction or last recapitalization, and the next anticipated recapitalization. Estimated life spans included in the manual and field guide are shown only as guides based on industry standards. Users are requested to revise this number to suit local conditions and past history. In this way, RMP can be customized to match your local environment. This number can be used as a general indicator when forecasting future recapitalization. Refer to Forecast Year for more information.

Example entered as: [25]

8: Replacement Cost Percentage or R.C. %

The percentage of the total asset replacement cost attributable to that component. This is used as a guide to develop class C cost estimates for recapitalization. Refer to Forecast Year for more information. General percentages are shown in the individual asset guides and on the field guide e.g., 1040 - Roofing - 5%. Once again, due to site conditions, asset variables and the complexity of some assets, inspectors are asked to adjust or determine these percentages on site.

Example entered as: [5]

9: Inspection Type or Inspection

Type: Indicate level 1, 2 or 3, in accordance with the level definitions described in the manual. Most site manager or staff inspections are Type 1.

Example entered as: [1]

10: Rating: H&S, RTA, LOS and URG

Assign an A, B, C or D rating for each condition rating criteria (Health and Safety, Risk to Asset, Level of Service, and Urgency), as described in the component rating guides contained in the section for each asset category in the Operations Manual. These ratings all 'flow' from the generic rating guide described earlier; the inspector may choose simply to use the generic guide and refer to the component rating guides for specific interpretations and problem solving.

The codes are: A - Good B - Fair, C - Poor, D - Closure

Example entered as: [A | B | A | B]

11: Prev. Recap. / Year / K\$

The previous recapitalization of the component is recorded here. In this example, the asset was built in 1945, re-roofed after 25 years, in 1970, at a cost of \$1,000. This information is useful as an aid to record the history of the asset, and the component performance, and to transfer knowledge from one employee to the next.

Example entered as: [1970 | 1.0]

12: Forecast Year / \$

Based on the condition of the component, the inspector may forecast when recapitalization is required. In this example, the rating for RTA and URG is B, which indicates that recapitalization will be required in 3 to 5 years (the time frame for urgency rating is shown in section B 3.4.4, or in Part C Component Rating Guides). Since the roof is 24 years old and the life span is approximately 25 years, the forecast is that it will require re-roofing in 1999, which is in accordance with the

observed condition of the roof. If roofing costs are not known, the replacement cost percentage of 5% of total replacement cost can be used, giving a figure of \$3,500.

Example entered as: [1999 | 3.5]

13: Defects/Comments

Any relevant comments on the component's condition and what recapitalization work is required may be entered. The size of the comments section that is contained in the database expands to meet whatever quantity of information is required. For example, it is possible to record contractor information, phone numbers and warranty information in this area as well as detailed comments about the condition.

14: Overall Asset Rating

The overall rating for the asset is determined using ratings assigned to each component for each criteria. Asset- and component-specific instructions are contained in the manual for each asset category.

Generally, the worst condition of a major component determines the rating for that criteria for an asset. For example, a 'C' rating for RTA for the Exterior Walls component would give an asset an overall rating of C for RTA. This may vary depending on the asset type and component. Please review the Operations Manual for your areas of specialization to ensure that you are familiar with this aspect of the ratings.

In this example, there is only one component included so its ratings become the overall ratings, if, in the inspector's opinion, these ratings give a true indication of the overall condition of the asset.

Example entered as: [A | B | A | B]

15: Total recapitalization

The total of all recapitalizations forecast is entered, which in this case is \$3,500.

Example entered as: [3.5]

16: Overall Asset Condition

This is determined using the rating guides or professional opinion. Please consult the manual for directions specific to each asset category. In general terms, OAC is determined by the worst rating of the primary criteria (H&S, RTA and LOS), and should represent the inspector's opinion of the overall condition of the asset.

Example entered as: [B]

17: Rated by and Date of Inspection

The inspector signs and dates the form.

5.2 Asset Summary Form

This form is used to inspect and rate an asset when it is initially entered into the database. To explain the use of this form, the completed form in figure 5 "RMP Asset Summary Form" is used as an example. It shows the same building asset as used in Section 5.1, but is inspected and rated as a whole asset.

5.2.1 Asset Static Information**1: Park/Site/Canal**

Park, site or canal name and the four digit identifier number.

Example entered as: [8720 Caribou N.P.]

2: Active

An asset is active if it is in use or currently being maintained.

Example entered as: [Y]

3: Asset

The five-digit asset number along with the name by which the asset is commonly known. Note that if an asset is divided into sections, for example, Quebec fortification walls, each section should be treated as an asset.

Example entered as: [01605 Trade Shop]

4: Category

The appropriate code for the asset category is shown on the rating guide.

Example entered as: [A | Building]

5: Type

Enter the asset type and appropriate code. A list of asset types is in the appropriate rating guide.

Example entered as: [C | General Works and Utilities]

6: Sub-type

If an asset type is subdivided in subtypes, enter the name and code. A list of asset subtypes is in the appropriate rating guide.

NOTE: Not all asset types have subtypes. If this is the case, leave the field blank.

Example entered as: [C | Trade Shops]

RMP Asset Summary Form		Buildings
Asset Inventory		
Park Site/Canal 8720 1 CARIBOU N.P.	2 Active <input checked="" type="checkbox"/>	
Asset 01605 3 TRADE SHOP	Category A 4 BUILDING	
Type C 5 GENERAL WORKS	Sub-type C 6 TRADE SHOPS	Class of Estimate E
Year of Construction 7/1945 A/E E	Year of Acquisition 8 -	Replacement Cost (K\$) 9 70.0 Year 1993
Related Facility Name 10 MAINTENANCE COMPOUND	Management Unit 11 1000	
LDU No 12 11667	Park Management Plan Zone 5 13	Cultural Resource Category 3 14 Primary Service Number 15 801-00
Asset Specific Information - Buildings		
No of Floors <input type="checkbox"/>	Gross Floor Area <input type="text"/> m ²	Vol. <input type="text"/> m ³
FHBRO Report No <input type="text"/>	FHBRO Designation <input type="checkbox"/>	
Asset Condition Rating		
Rated by 16 JOHN DOE	Type 1 Date 93/015	Total Recap Forecast 3.5
Reviewed by 17 FRED SMITH	Date 93/020	18 Next Inspection 94/0901 Type 1
RATINGS Health and Safety A Risk to Asset B Level of Service A Urgency B OVERALL B		
Comments 20		
21 Complete asset replacement req'd? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> PIP# <input type="text"/> Cost (K\$) <input type="text"/>		
Major Additions and Renovations		
PIP No <input type="text"/>	Cost (K\$) <input type="text"/>	A/E <input type="text"/> Year <input type="text"/>
22 Description <input type="text"/>		

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Fig. 5: RMP Asset Summary Form

7: Year of Construction

Enter the year in which the construction of the asset was completed, with an indication as to whether the date is actual or estimated.

Example entered as: [1945 | E]

8: Year of Acquisition

If different from the year of construction, enter the year that the asset was acquired through system expansion, such as new park development.

Example has no entry: [i.e. Blank]

9: Replacement Cost/Year/Class of Estimate

Indicate the estimated cost to replace the asset, rounded off to the nearest thousand, along with the year of the estimate and the estimate level (class C or better).

Example entered as: [70.0 | 1993 | C]

10: Related Facility Name

If the asset is part of a facility, enter the facility name, e.g., road or building asset within a campground facility.

Example entered as: [Maintenance Compound]

11: Management Unit

Enter this four-digit number which is assigned by the site managers and used when more control in asset management is required. Since this is a discretionary code, some assets may not have one.

Example entered as: [1000]

12: LDU No.

Enter the Federal Real Property Land Designator Unit number, which is assigned to all parks, sites and canals. A complete list of LDU numbers is found in Appendix C.

Example entered as: [11667]

13: Park Management Plan Zone

Enter the appropriate code. The Park Management Plan divides the park into management zones, which should be reviewed if there are any doubts as to which zone an asset falls into.

Example entered as: [5]

14: Cultural Resource Category

Enter the Cultural Resource Management classification level assigned to all assets. The regional historian is responsible for identifying all levels and should be consulted if there are any questions. The levels are: 1. National Historic Significance, 2. Historic Value and 3. Not of historic value.

Example entered as: [3]

15: Primary Service Number

Enter the five-digit number assigned by Parks Canada to cross reference RMP with the service reporting requirements of Parks Canada. Some assets may have more than one number. This occurs when an asset serves more than one function, such as a front-country hiking trail that is used for winter cross-country skiing. A complete list of primary service numbers is found in Appendix D.

Example entered as: [801-00]

5.3 Asset Specific Information

This information is specific to each asset category, and is required for other management or inventory systems, such as the pavement management system and the bridge inventory, which are served by the Asset Information DataBase. It consists of information such as the gross floor area of buildings, lengths of roads or trails, and the overall span of bridges. Details of the individual requirements are in the individual rating guides.

5.4 Asset Condition Rating**16: Rated by/Type/Date**

The person doing the rating must enter their names, along with the code denoting the inspection type and the date of the inspection.

Example entered as: [John Doe | 1 | 94/02/13]

17: Reviewed by/Date

All asset inspections are to be reviewed by the asset managers or their designates. The reviewer will check the form for completeness, and indicate their concurrence with its contents by signing and entering the date of their review.

Example entered as: [Fred Smith | 94/02/16]

18: Next Inspection/Type

When a recommendation is made to change the frequency of inspection or the inspection type, enter the recommended date of the next inspection and the type.

Example entered as: [95/06/15 | 1]

19: Ratings

Enter the overall ratings for H&S, RTA, LOS, URG for the entire asset and the OAC. If the asset is inspected and rated by components, these ratings will be taken from the Component Inspection Form.

Example entered as: [A | B | A | B | and B]

20: Comments

Enter any relevant notes on asset condition or recommendations on specific work required as a guide for future recapitalization planning and estimating.

21: Complete Asset Replacement Required

If the overall condition of the asset is such that the inspector recommends total reconstruction, enter the appropriate recommendation. After the PIP is generated, the rating report is updated to show the PIP number and dollar amount.

5.5 Major Additions and Renovations**22: PIP No./Cost(K\$)A/E/Year/Description**

Enter the PIP number of any existing or previous recapitalization projects, along with an updated, actual or estimated cost, the year of the project and a description of the work.

6.0 RMP Form and Standard Reports

For the purposes of RMP, forms are used to record the results of inspections and asset information updates, whereas reports are presentation of data generated by the PC AMP/PC RMP software

6.1 RMP Forms

Blank copies of the RMP "Asset Summary Form" and "Component Inspection Form" are included in appendix B of this manual. Make copies of the blank forms to record information for new assets or assets not previously inspected and part of the RMP database.

The Asset Summary Form is used to record overall information about the asset including a brief description along with codes, asset name and number, as well as the Overall Asset Condition which gives a summary indication of the state of the asset.

The Component Inspection Form is used to record detailed information about the components which a manager wishes to track, record condition, and forecast future requirements. It includes a "Comments" section which can expand to include as lengthy a description as necessary.

6.2 RMP Reports

This section of the manual includes some sample reports generated by the PC AMP/PC RMP software. These reports are grouped by type and presentation format. The software includes a report generator to facilitate printing these types of reports. Please consult the PC AMP/PC RMP software manual for specific information on printing RMP reports in the format suitable for your purposes

Sample reports include:

- Report by Asset
- Report by Component
- Report by Asset Category
- Report by Management Structure

Recapitalization Management Process
Asset Condition Report

94/03/23

Asset Inventory

Park/Site/Canal : 8620	POINT PELEE	Active
Asset: 01001	GARAGE BUILDING	
Category: A	Buildings	
Type : C	General Works & Utilities	
Sub_type: A	Garages	
Year of Construction: 1955	() Actual	(v) Estimated
Year of Acquisition :		
Replacement Cost (K\$): 722	Year: 1993	Class of Estimate: C
Related Facility Name: MAINTENANCE COMPOUND		
CAIS Code : 8620-01000	Management Unit: 1000	
FRP/LDU No.: 10667	Cultural Resource Category:	
Park Management Plan Zone:	Primary Service Number:	

Asset Condition Rating

Rating		yy/mm/dd
Health & Safety : A		Date : 92/01/02
Risk to Asset : A		
Level of Service : B		Life Span : 25
Urgency : B		
Overall Asset Condition : B		
Rated By : FRANK, LARRY, BRUCE, BOB		Type: 1
Reviewed By : BRUCE HORAN		
Date (yy/mm/dd): 93/12/09		
Recommended Date of Next Inspection: 95/06/01		Type: 1
Base on Asset Condition, Complete Asset Repl. Recommended: () Yes (v) No		
PIP #:	Cost (K\$): 0	

Asset Specific Information

Gross Floor Area :	862 m ²	Volume :	0 cu. m
Number of floors :	1	FHBRO Designation :	
FHBRO Report # :			

OAC comments:
REPLACE METAL QUONSET HUT ROOF

Major Additions & Renovations

PIP #	Cost(K\$)	A/E	Year	Description
53567	44.00	A	1987	Addition

Asset: 01001 - GARAGE BUILDING

Facility: MAINTENANCE COMPOUND

Component Code	Description	Rating			Assessed Recap Requirements (in 93-94 dollars)K\$						Theoretical Replacement Year	K\$	
		H&S	RTA	LOS	URG	93-94	94-95	95-96	96-97	97-98			98-99
1030	Exterior Walls	A	C	B	C			****.*					
1100	Heating Systems	A	B	B	B						****.*		
1120	Plumbing Systems	A	C	C	C			****.*					
Total for (01001 - GARAGE BUILDING)													
												****.*	****.*

Asset: 01001 - GARAGE BUILDING

Last Inspection : / /

Code	Component Title/Field Description	L.S. Yrs	R.C. %	Insp. Type	Rating				Prev. Year	Recap. K\$	Forecast		Defects/Comments
					H&S	RTA	LOS	URG			Year	K\$	
1030	Exterior Walls	40	15	1	A	C	B	C		0.0	1995	10.0	SIDING IS DETERIORATING
1040	Roofing	25	5	1	A	A	A	A	1985	3.0		0.0	REPLACE EXISTING METAL WITHIN 1 TO 2 YEARS. SECTIONS OF METAL ARE
1040	Roofing	25	2	1	A	A	A	A	1993	5.0		0.0	
1100	Heating Systems	30	1	1	A	B	B	B		0.0	1998	4.5	
1120	Plumbing Systems	40	5	1	A	C	C	C		0.0	1995	15.0	DETERIORATION OF WHEEPING TILE AND TANK
1130	Electrical Systems	40	7	1	A	A	A	A		0.0		0.0	

**Recapitalization Management Process
Component Condition Report**

94/03/18

Asset number: 8620-01001

Asset name: GARAGE BUILDING

Component code: 1030 - Exterior Walls
Field descriptor: Exterior Walls

Life Span Years	%	---- Rating ---				Previous Recap		Forecast Recap	
		H&S	RTA	LOS	URG	Year	K\$	Year	K\$
40	15	A	C	B	C			1995	10.0

Defect:
SIDING IS DETERIORATING

Rated by: LMFI Rating type: 1 Inspection date: 93/12/09 yy/mm/dd

Component code: 1040 - Roofing
Field descriptor: METAL ROOFING

Life Span Years	%	---- Rating ---				Previous Recap		Forecast Recap	
		H&S	RTA	LOS	URG	Year	K\$	Year	K\$
25	5	A	A	A	A	1985	3.0		

Defect:

Rated by: LMFI Rating type: 1 Inspection date: 93/12/09 yy/mm/dd

8620 - POINT PELEE
Asset Component Recapitalization - 5 Year Forecast

Asset Code	Name	Component	Insp. Year	Forecast years				
				93-94	94-95	95-96	96-97	97-98
8620-01001	GARAGE BUILDING	Exterior Walls	1993			10.0		
		Roofing	1993					
		Roofing	1993					
		Heating Systems	1993					
		Plumbing Systems	1993			15.0		
		Electrical Systems	1993					
		Total for 8620-01001					25.0	
8620-01003	GARAGE LUNCH TRAILER	Roofing	1994					3.0
		Roofing	1994					
		Total for 8620-01003						3.0
8620-01101	TRANSIT MAINTENANCE BUILDING	Roofing	1993					
		Plumbing Systems	1993					
		Total for 8620-01101						
8620-01200	WARDENS BUILDING	Roofing	1993					
		Heating Systems	1993					
		Total for 8620-01200						
8620-01306	TRADES SHOP ELECTRICAL SUBSTN.	Electric Power Distribution	1993					
		Total for 8620-01306						
8620-01401	STORES BUILDING	Foundations	1993					
		Structures	1993			30.0		
		Exterior Walls	1993			30.0		
		Roofing	1993			8.0		
		Doors	1993					
		Windows	1993					
		Heating Systems	1993			15.0		
		Total for 8620-01401						

Asset No. Name	OAC	Last Inspection		Next Inspection		Action or remarks
		Type	Date	Type	Date	
01001 GARAGE BUILDING	B	1	/ /	1	95/06/01	REPLACE METAL QUONSET HUT ROOF
01002 MAINTENANCE COMPOUND YARD	A	1	/ /	1	98/06/01	
01003 GARAGE LUNCH TRAILER	B	1	/ /	1	94/06/01	
01004 RADIO TOWER	A	1	/ /	3	94/06/01	
01005 POINT PELEE NURSERY	A	1	/ /		98/06/01	INSTALLED #6 WIRE INTO PANEL, 60 AMP SUB-PANEL, 6 OUTLETS, CONTRACTOR: FLOYD CACCIAVILLANE, GREEN HOUSE, INSTALLED 1/2" WATER LINE.
01006 COLD FRAME	A	2	/ /	1	95/06/01	#6 WIRE INTO PANEL, 60 AMP SUB-PANEL, 60 OUTLETS, CONTRACTOR: FLOYD CACCIAVILLANE, GREEN HOUSES, @ \$7.0, INSTALLED 1 WATER LINE. REPLACE PLASTIC WALLS EVERY 3 TO 5 YEARS.
01101 TRANSIT MAINTENANCE	A	1	/ /	1	98/06/01	
01200 WARDENS BUILDING	A	1	/ /	1	96/06/01	
01301 MAINTENANCE TRADES SHOP	C	1	/ /	1	94/06/01	
01302 WARDENS SHED #171	A	1	/ /	1	96/06/01	UPGRADED IN 1993 WHICH INCLUDED INSTALLATION OF NEW OVERHEAD DOOR
01303 WARDENS SHED #172	A	1	/ /	1	96/06/01	UPGRADED IN 1993 WHICH INCLUDED INSTALLATION OF NEW OVERHEAD DOOR

Facility name: MAINTENANCE COMPOUND

Asset		Rating				Assessed Recap Requirements (in 93-94 dollards)K\$						Theoretical Replacement		PIP
No.	Description	H&S	RTA	LOS	URG	93-94	94-95	95-96	96-97	97-98	98-99	K\$	Year	#
01200	WARDENS BUILDING	A	C	B	C			****.*				6.0		
Total for facility: MAINTENANCE COMPOUND								****.*						

Facility name: TRADES SHOP

Asset		Rating				Assessed Recap Requirements (in 93-94 dollards)K\$						Theoretical Replacement		PIP
No.	Description	H&S	RTA	LOS	URG	93-94	94-95	95-96	96-97	97-98	98-99	K\$	Year	#
01301	MAINTENANCE TRADES SHOP	A	C	B	C			****.*				6.0		
Total for facility: TRADES SHOP								****.*				6.0		

Facility name: MAINTENANCE COMPOUND

Asset		Rating				Assessed Recap Requirements (in 93-94 dollards)K\$						Theoretical Replacement		PIP
No.	Description	H&S	RTA	LOS	URG	93-94	94-95	95-96	96-97	97-98	98-99	K\$	Year	#
01303	WARDENS SHED #172	A	C	B	C			****.*						
Total for facility: MAINTENANCE COMPOUND								****.*						