



Raft Creek Rating District 2021-2024 Asset Management Plan

West Coast Regional Council

388 Main South Road
Greymouth
7805

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1.0 Purpose of this Document

The purpose of this document is to summarise the management philosophy that is applied to the Raft Creek Rating District including the infrastructure assets and services. This approach ensures that acceptable levels of service are provided in the most cost-effective manner and contribute to the achievement of the community outcomes identified in the West Coast Regional Council's Long-Term-Plan (LTP).

This AMP defines the objectives and performance standards of the Raft Creek Rating District for which the West Coast Regional Council bears the maintenance responsibility, including providing a basis upon which the effectiveness can be measured. The key purposes of this AMP are to:

- Provide a history of the Raft Creek drainage scheme.
- Convey the long-term strategy for the management of the Raft Creek Rating District.
- Provide a tool to assist with management assets in a cost effective and sustainable manner.
- Manage the environmental, service delivery and financial risks of asset failure.
- Demonstrate that the service potential of the rivers and drainage assets is being maintained.

2.0 Asset Management Objectives

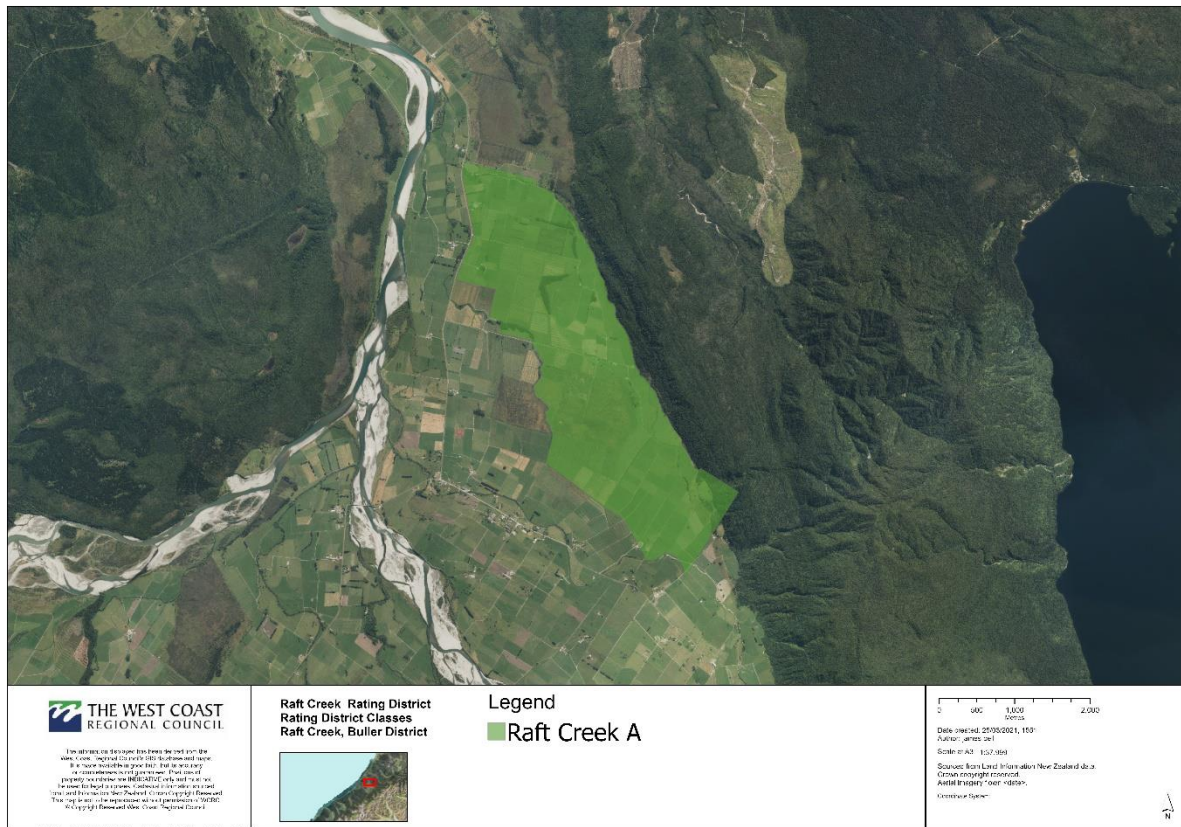
West Coast Regional Council recognises that the Raft Creek Asset Management Plan is the fundamental driver of drainage and infrastructure for the scheme. This AMP has been developed in accordance with the Local Government Act 2002, with the first AMP completed in 2003 with three yearly updates or earlier where information indicates a significant change from what is stated in the current AMP.

In order to fulfil the outcomes, vision, goals and objectives of these assets, the West Coast Regional Council have adopted a systematic approach to the long-term management of its assets and services on the Raft Creek Rating District by preparing this AMP.

West Coast Regional Council is committed to best appropriate practice asset management in order to achieve the following key objectives:

- Meet the service expectations of the Raft Creek community.
- Ensure maintenance activities achieve efficient results with optimal benefits.
- Demonstrate Council's approach to managing risk and meeting growth requirements towards a sustainable future.
- Comply with all statutory requirements.

3.0 Raft Creek Rating District



4.0 Raft Creek Rating District Background

In 1959 the Westland Catchment Board was investigating the drainage of the swampy area Lower Kokatahi surrounding Raft Creek. Originally it was proposed to develop a scheme to drain the whole area, including the deep peat swamp in the middle. However, an economic report prepared by the Department of Agriculture suggested the deep peat swamp areas would not be economic for dairying.

The estimated cost of the whole scheme had been \$35,200; while the partial scheme opted for was costed at \$22,200. The scheme classification was adopted by the Westland Catchment Board on 26 September 1960.

The original creek channel was designed at the annual flood level. The design flow for the lower section of the creek was 23.48 cumecs.

In November 1961, the major excavation of Raft Creek was completed. This involved 62,500 m³ of excavated material and cost \$12,776. In 1962, 23,000 cubic metres of excavated material was removed. In September 1962, the Commissioner of Crown Lands requested an extension to the existing scheme. In 1963 further drainage construction took place, involving 61,000 cubic metres.

Minor clearing works were carried out between 1963 and 1981.

At a Special Meeting of the Rating District held in April 2002, a new classification based on land area, was presented to all ratepayers. It was resolved: "That a new Raft Creek Rating District classification, based on a land area basis, as presented, covering the maintenance of the main Raft Creek channel, be adopted." The Council ratified this decision on 10 July 2002.

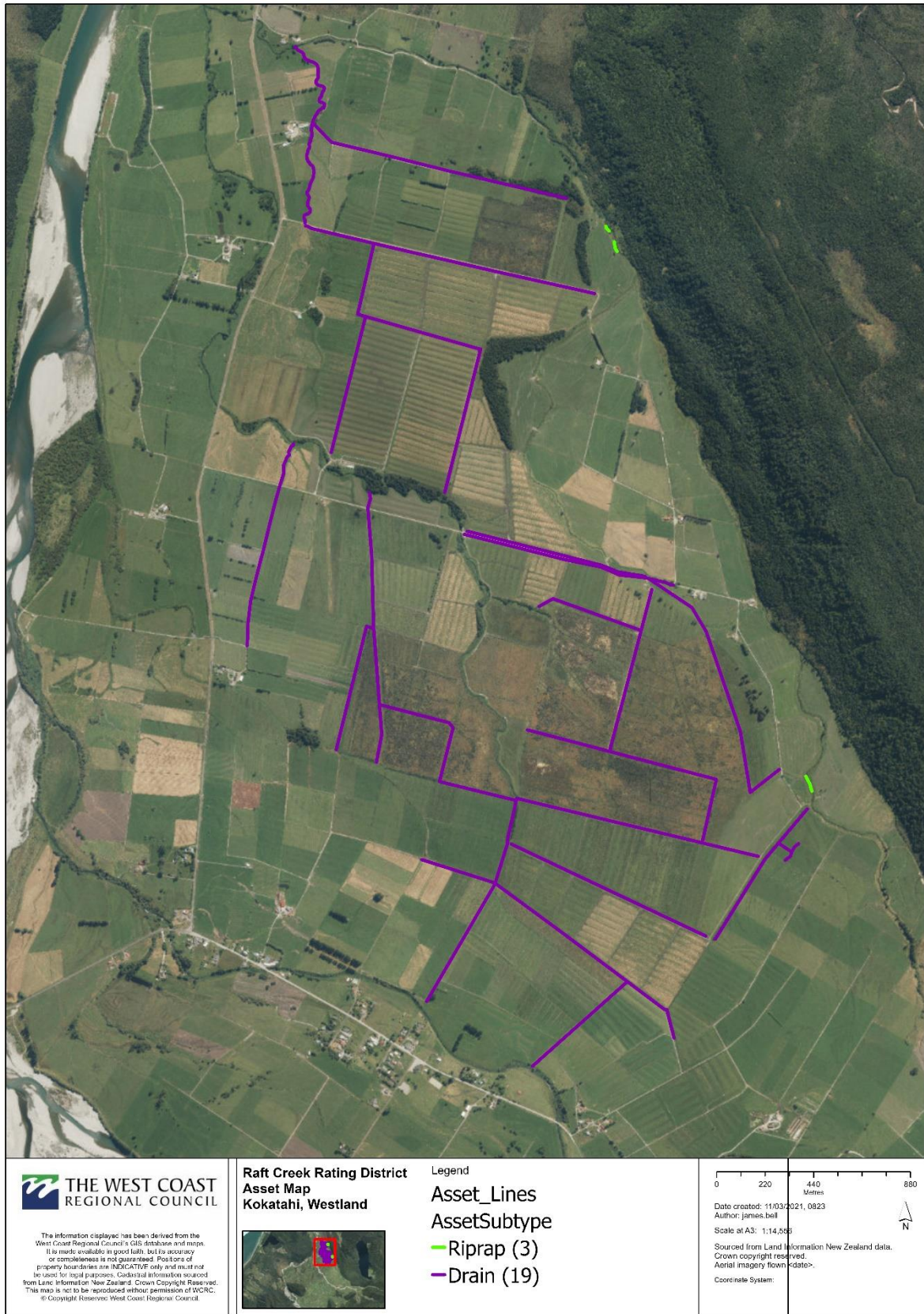
5.0 Description of Assets

Asset	Quantity	Unit	Rate
Rubble	3,179	Tonne	\$25.00
Drain	119,420	m ³	\$2.00
Asset Value			\$301,540.00
<i>Contingencies</i>			<i>\$30,154.00</i>
<i>Resource Consents</i>			<i>\$6,633.88</i>
<i>Emergency Work Conditions</i>			<i>\$30,154.00</i>
Total Asset Value			\$368,481.88
As of 1 July 2020			

5.1 Physical Assets

Asset Type	# Of Assets	Asset Components	Quantity	Rate	Value	Total Value
Drain	19	Drain	119420 ³	\$2.00	\$238,840.00	\$238,840.00
Riprap	4	Rubble	2508T	\$25.00	\$60,500.00	\$62,700.00
Total						\$301,540.00

5.2 Asset Map



Note: Not all assets have been added to the asset map due to having no spatial data to represent them at this current time.

6.0 Existing Standard

The sections of creeks built in 1960 were designed to contain a flood of 23.5 cumecs at that time estimated to be a 50-year return flood. No updates of this information have occurred since.

The rating district has decided that they do not wish to have any flood flow analysis undertaken to quantify the flood flow capacity of the creeks and drains. Given that there has been no analysis carried out the scheme structures will be maintained to the dimensions that they were originally constructed.

6.1 Service Level

The Levels of Service represented in this AMP are described and aligned with community values including affordability, quality, safety, community engagement, reliability, and sustainability. The scheme structures will be maintained to the dimensions that they were originally constructed.

Councils in New Zealand will generally adopt one of three methods for determining the level of service provided by a scheme:

- Agreeing on a scope of physical works with the community without reference to a target capacity or return period (low risk schemes)
- Providing physical works with a level of performance provided in terms of a target capacity (medium risk schemes)
- Providing physical works with a level of performance in terms of a target return period (high risk schemes)

Each of the three methods for determining the level of service may be suitable for a given scheme, provided that communities understand event likelihood, scheme and property vulnerability, potential consequences, and residual risk.

Where council staff have recommended physical works or analysis that did not proceed due to community resistance to cost, then councils are only able to track their service delivery through measures around maintenance works programmes or a general description of channel condition.

The objective of the Raft Creek Rating District is to maintain existing creeks and drains included in the scheme to their original design specifications.

6.2 Maintenance Programme

An annual maintenance report is prepared each year in consultation with the Raft Creek Rating District to adoption by the Council for inclusion in its annual budgets.

In preparing the annual maintenance report the following will be considered:

- An inspection to identify works requiring immediate repair.
- Works anticipated as being required given a 'normal' season.
- Flexibility to meet unbudgeted damages.

An annual report will be presented to the Rating District outlining the condition of the scheme assets and maintenance works and expenditure required for the coming financial year.

The maintenance of the Raft Creek Scheme can be broken into two areas: Creek Maintenance and Drainage Maintenance.

Creek Maintenance

Creek maintenance includes the excavation of creek bed build up, and the removal of vegetation from within and around waterways to allow the fast passage of flood flows to prevent overtopping of creek banks.

Drain Maintenance

Drains are required to be cleaned out on a regular basis to maintain their original design capacity as per the plan specifications as well as the repair of any damage to bank batters.

6.3 Damage and Exposure

Erosion works are constructed in a very high energy environment with the purpose of resisting and absorbing some of that energy. It is considered that no matter what the standard of maintenance carried, it is likely that damage will occur from time to time.

An assessment of maximum damage potential was estimated as below:

Event size (AEP)	Value	Damage ratio	Damage exposure	Prudent Reserve	Prudent reserve contribution
10%	\$368,481.88	5%	\$18,424	\$18,424	100%
5%	\$368,481.88	10%	\$36,848	\$25,794	70%
2%	\$368,481.88	20%	\$73,696	\$36,848	50%

It has been deemed, within reason, that all Rating Districts have a prudent reserve target balance that contributes to at least 100% of the damage exposure for a 10% AEP event, 70% for a 5% AEP event and 50% for a 2% AEP event. These percentages define what is an appropriate and acceptable level of risk for Council and the community.

6.4 Prudent Reserve

Why do we need a prudent reserve?

- Minimise the financial impact of unplanned works, such as those caused by weather events
- Ensure the rating district is able to contribute funding that is sustainable and affordable
- Ensure Council's debt level is managed, and that borrowing is still available when required
- Ensure the debt levels of the rating district do not exceed the ability to fund the repayments

This target balance for the 'prudent reserve' for this rating district is \$25,000 as agreed by council. This prudent reserve is immediately available. It is likely the current reserve will only cover a portion of the actual cost of the potential damage that could occur.

If an event were to occur and the prudent reserve does not cover the full repair and rebuild cost of the assets, it is understood by the community that the remaining costs will be paid by loan, or the rating district accounts will be in overdraft. In the instance of extreme weather events, NEMA funding and the Council's private insurance will be accessed for cost recovery if the criteria are met. The West Coast Regional Council's insurance policy has a \$400,000 excess. 40% of eligible rebuild costs will be met by this policy.

Below are the key criteria that needs to be met to access the NEMA funding, which can cover up to 60% of eligible rebuild costs

The provisions for government financial support to local authorities apply whether or not a state of emergency is, or has been, in force

Government assistance will not normally be available for assets which receive a subsidy from any other source, unless:

- *the local authority has adequately protected itself through asset and risk management including mitigation, where appropriate, and the proper maintenance of infrastructure assets, or*
- *the local authority has made sound financial provisions (such as the provision of reserve funds, effective insurance, or participation in a mutual assistance scheme with other local authorities) to a level sufficient to ensure that the local authority could reasonably be expected to meet its obligation to provide for its own recovery*

Threshold

Threshold for reimbursement; As with other response claims, Government policy is to reimburse 60 percent of the combined eligible costs (response and essential infrastructure costs), above the following thresholds:

- *0.0075 percent of the net capital value of the city council, district council or unitary authority involved*
- *0.002 percent of the net capital value of unitary authorities where the assets in question are of a type that ordinarily are managed by regional councils, or*
- *0.002 percent of net capital value in the case of regional councils*

7.0 Funding

7.1 Maintenance

Maintenance is funded by targeted rates, the level of rating being determined each year in the Annual Plan process. This involves:

- a) Preparation of an annual works programme and corresponding budget.
- b) Adoption of the annual works programme and budget.
- c) Discussion of the works report and budget with the ratepayers.
- d) Adoption of final budget in the Council's Annual Plan.

The aim of maintenance is to ensure the infrastructure assets are kept at a standard where they can always perform to their service level. Where rock is required to be placed on an existing infrastructure under direct attack from the sea, the protection required to maintain the existing infrastructure at its same service potential would be charged to the scheme maintenance account.

Capital works are generally defined as works which increase the service level of the scheme. Such work would include increasing the design standard or the area covered by a scheme and works to increase security or performance of an erosion control system or structure over and above that identified in the asset plan.

7.2 Damage Repairs

Routine damage repairs are funded by a combination of:

- a) Carrying out work as scheduled in annual works programme.
- b) Reprioritising works identified in the annual works programme.
- c) Use of financial reserves.

Major damage repairs would be funded by loans raised by the Council and repaid by targeted rating over a number of years.

7.3 Financial Reserves

Financial reserves are held within the rating district account to provide the following:

- a) Meet the costs of unscheduled works.
- b) Enable an immediate response to flood damage repairs.
- c) Prevent major fluctuation in rating levels annually.

The levels of financial reserves held in the rating account are determined by the estimated damage exposure and the likely need for un-programmed works.

7.4 Depreciation

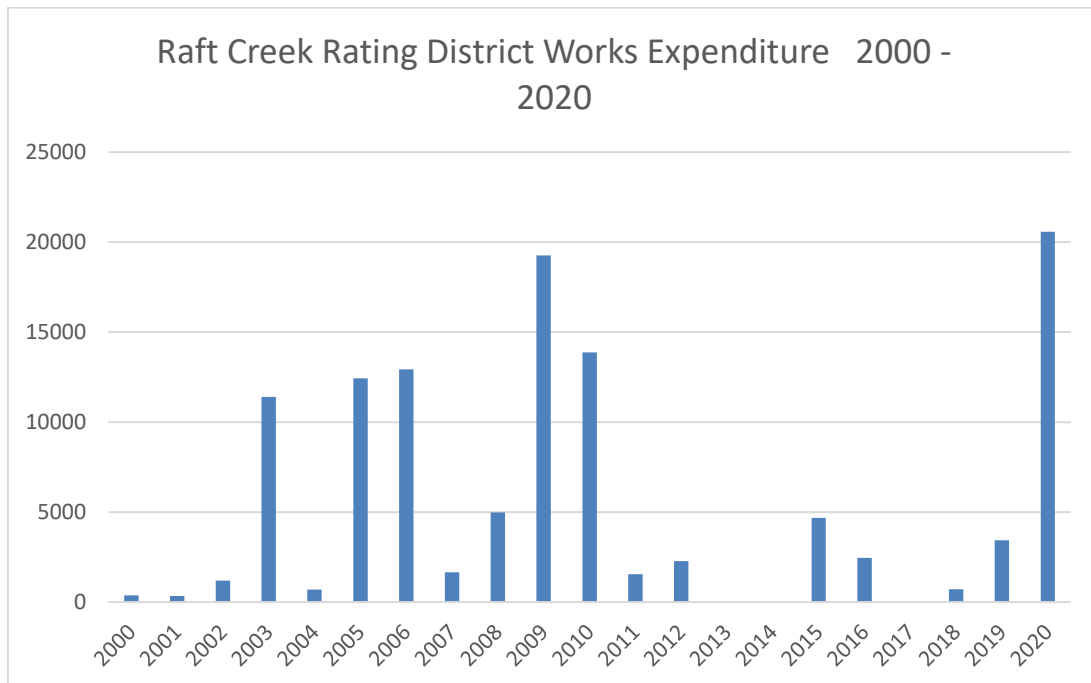
River and erosion control schemes are designed to be maintained in perpetuity by constantly repairing and replacing component parts which are damaged by floods or by the constant wear and tear encountered in a river environment.

The performance measure is that the infrastructure assets are maintained to meet their service levels at all times.

As there is a constant cycle of replacement of elements of the infrastructure as necessary, depreciation of the value of the assets is not appropriate and funding of depreciation is not necessary. This approach is consistent with the NZ Infrastructure Asset Valuation and Depreciation Guidelines, Section 5.4.4.

7.5 Works Expenditure

This chart reflects the construction costs of infrastructure assets on the Raft Creek Rating District. This chart **does not** reflect the total annual expense incurred by the Raft Creek Rating District. Please refer to the annual works and financial report for the total expenses.



Expenditure 2000 - 2020	
Total expenditure	\$131,657
Average expenditure	\$6,269
Total asset value	\$368,481

8.0 Performance Measures

The following procedures may be adopted to ensure the adequacy of maintenance.

Period	Procedure	Performance Measure
Annually	Produce annual works report for the rating district assets to include type of work to be undertaken, quantities, location, and costs.	No reports of channel or creek requiring repairs without an agreed programme of remedial work in progress. Asset maintenance is current as per level of service.
	Organise contracts for agreed scheme work, oversee contract completion and report to Council.	
	Report on works undertaken during the previous financial period to the rating district ratepayers and Council.	
Triennially	Re-measure cross section river profiles to determine whether the riverbed is stable, or aggrading, and to identify management issues or options. – If Required.	Report to Council and ratepayers on revaluation of assets and the Plan review.
	Revaluation of the asset schedule to include any additional excavation and channel clearance and bank protection works over the three-year period.	
	Review this Asset Management Plan	
10-yearly	Flood modelling will be undertaken to identify a range of level of services.	Report to council and ratepayers.

8.1 AMP Review and Monitoring

This plan is a living document, which is relevant and integral to daily activity. To ensure the plan remains useful and relevant the following on-going process of AMP monitoring and review activity will be undertaken:

- Formal adoption of the AMP by the West Coast Regional Council.
- Review and formally adopt Levels of Service to comply with the Rating District committee
- Revise this AMP three yearly prior to Long Term Plan (LTP) to incorporate and document changes to works programmes and outcome of service level reviews.
- Quality assurance audits of asset management information to ensure the integrity and cost effectiveness of data collected.
- Peer review and external audits will be undertaken to assess the effectiveness with which this plan meets corporate objectives. Periodic internal audits will be undertaken to assess the adequacy of asset management processes, systems and data and external audits will be undertaken to measure asset management and performance against 'best practice'.