

# Appendix B: Standard treatment guidelines

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# 1. Introduction

Victoria's Natural Disaster Financial Assistance (NDFA) scheme is available to local councils, Catchment Management Authorities (CMAs) and state agencies (Delivery Agencies), to relieve some of the financial burden that may be experienced following a natural disaster, in accordance with the Australian Government's Disaster Recovery Funding Arrangements (DRFA).

Under the DRFA, the Australian Government will reimburse the states under an estimates-based model for the Reconstruction of Essential Public Assets (REPA) following an eligible disaster. To facilitate consistency and ease of estimation, an estimating tool for typical and common treatments undertaken in response to damage sustained from natural disasters has been developed.

The estimating tool includes twenty-four (24) standard treatments. The standard treatments can be customised to the applicant's local plant, labour and material rates, and specific arrangements. Where non-standard treatments are required, a first principles or itemised cost estimate can also be provided using the 'other' category in the cost estimating tool.

# 2. Purpose

The purpose of this guideline is to support the *Cost Estimation Guideline* by describing the twenty-four (24) standard treatments and the work activities and scope of works included in each of these treatments.

# 3. Scope

This guideline applies to REPA works undertaken following damage from natural disaster events activated under Category B, 4.3.2(d) of the DRFA.

Emergency works for essential public assets, immediate reconstruction works for essential public assets and counter disaster operations for the protection of the general public are reimbursed based on actual cost expended and are out of the scope of this guideline.

# 4. Standard treatments

Standard treatments most commonly used in Victoria's reconstruction activities have been collated. The use of common terminology and unit of measure aims to provide consistency across REPA works to:

- assist applicants during scoping;
- assist the review process; and
- audit of claims.

Twenty-four (24) standard treatments have been identified, with an 'other' category provided for non-standard treatments that are unique in nature. The standard treatments are detailed below.

**Table 1: Standard treatments**

| Category                       | No.  | Treatment   | Unit           |
|--------------------------------|------|---|----------------|
| Unsealed pavements             | ST1  | Light formation grading   | m              |
|                                | ST2  | Medium formation grading  | m              |
|                                | ST3  | Heavy formation grading   | m              |
|                                | ST4  | Gravel material supply  | m <sup>3</sup> |
|                                | ST5  | Gravel resheeting   | m <sup>3</sup> |
| Sealed pavement repairs        | ST6  | In-situ stabilisation – including additional material as required | m <sup>2</sup> |
|                                | ST7  | Granular overlay – overlay with imported material (≤150mm)        | m <sup>2</sup> |
|                                | ST8  | Reconstruct unbound granular pavement                             | m <sup>2</sup> |
|                                | ST9  | Patch repair – patch unbound pavement failure                     | m <sup>3</sup> |
|                                | ST10 | Pothole repair  | tonne          |
|                                | ST11 | Heavy shoulder grading  | m              |
|                                | ST12 | Shoulder reconstruction   | m              |
|                                | ST13 | Asphalt   | m <sup>3</sup> |
| Clearing and earthworks        | ST14 | Bulk excavate surplus material or debris and remove from site     | m <sup>3</sup> |
|                                | ST15 | Bulk fill   | m <sup>3</sup> |
|                                | ST16 | Rock protection   | m <sup>3</sup> |
|                                | ST17 | Reshape table drain   | m              |
| Road furniture and delineation | ST18 | Replace road signage  | each           |
|                                | ST19 | Replace roadside barriers   | m              |
|                                | ST20 | Replace guide posts or markers                                    | each           |
| Concrete                       | ST21 | Reconstruct reinforced concrete                                   | m <sup>3</sup> |
| Drainage structures            | ST22 | Repair drainage structure – excavate, repair and reinstate        | m              |
|                                | ST23 | Replace Reinforced Concrete Box Culvert (RCBC)                    | m              |
|                                | ST24 | Replace concrete pipe   | m              |
| Other                          | OT1  | 'Other' – including structures, retaining items                   | lump sum       |

## 5. Unsealed pavements

Treatment selection for the restoration of unsealed roads must be commensurate with the classification of the asset and its maintained condition prior to the disaster. Unsealed road assets are generally classified as either unformed, formed or gravelled.

### 5.1 Unformed road

An unformed road has no constructed or maintained formation, or surface drainage.

Unformed roads may have had vegetation intentionally cleared or may simply be the result of vehicles travelling the same path over time.

Generally, grading works (ST1, ST2, ST3) are ineligible on unformed roads, unless the asset owner can demonstrate an appropriate level of maintenance has occurred. The treatments applicable to a maintained unformed road are bulk excavate (ST14) and bulk fill (ST15).

### 5.2 Formed road

A formed road has a constructed formation and, in most cases, table drains with no gravel on the road surface.

As no gravel is generally imported for this road classification, the import of gravel is generally not eligible. Where scouring or loss of material has occurred, bulk fill (ST15) from within the road corridor should be used.

Where sufficient material remains on the road, but loss of shape has occurred, the treatment should be limited to a medium formation grading (ST2).

Where rutting and loss of shape is extensive, heavy formation grading (ST3) may be considered. The displaced formation material should be recovered from the table drains or within the road corridor.

### 5.3 Gravel road

A gravel road has had a layer of gravel imported (ST4) (from borrow pits or quarries), compacted and maintained atop the formation.

Where rutting, loss of shape and gravel displacement has resulted, a medium formation grading (ST2) should be undertaken, using gravel that is recoverable from the drainage lines.

Where the displaced gravel is non-recoverable or heavily contaminated and extensive damage to the roadway has resulted, import of material will likely be required.

All grading and resheet treatments (ST5) include the following work operations:

- establishment and disestablishment of all plant, labour and materials;
- provision for traffic control during the works;
- removing and reinstating roadside furniture such as guide posts, signs, etc. as required; and
- cleaning site and disposing of any waste or removed material in accordance with applicable Victorian Government legislation or local government by-laws.

## 5.4 ST1 – Light formation grading

Table 2: ST1 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• light trimming by grader of the existing roadway to restore rideability by filling holes and other depressions; and</li><li>• removal of waste trimmed from carriageway.</li></ul> |
| <b>Exclusions</b>      | Scarifying, compaction, import of water or material or table drain works.  |

## 5.5 ST2 – Medium formation grading

Table 3: ST2 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• roughening of top of road surface (approx. 50mm by grader);</li><li>• clearing and grubbing to remove light vegetation and grass;</li><li>• recovery of suitable material from table drains (by grader);</li><li>• incorporation of water and compaction; and</li><li>• grading to restore the road surface to pre-disaster profile and condition.</li></ul> |
| <b>Exclusions</b>      | No import of material.   |

## 5.6 ST3 – Heavy formation grading

Table 4: ST3 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• clearing and grubbing, and recovery of suitable material from table drains (by grader);</li><li>• tyne <math>\leq</math>100mm depth (150mm if supported by depth of rutting);</li><li>• reinstatement of formation and profile;</li><li>• incorporation of additional gravel or material; and</li><li>• trimming and compaction.</li></ul> |
| <b>Exclusions</b>      |  |

## 5.7 ST4 – Gravel material supply

Table 5: ST4 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m <sup>3</sup>   |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• supply of gravel or material to the work site; and</li><li>• imported gravel should be consistent with material in-place pre-disaster, or material the asset owner currently uses for maintenance in the area.</li></ul> |
| <b>Exclusions</b>      | Excludes all operations for placement, trimming and rolling.   |

## 5.8 ST5 – Gravel resheeting

Table 6: ST5 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | m <sup>3</sup>  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• addition of imported gravel or material to the roadway to reinstate the running surface and correct profile;</li><li>• preparation of the formation through heavy formation grading;</li><li>• supply and spreading of imported gravel or material to reinstate the running surface and correct profile; and</li></ul> imported material should be consistent with material in place pre-disaster or material the asset owner currently uses for maintenance in the area. |
| <b>Exclusions</b>      | Additional material required for inclusion in the heavy formation grading (prior to resheet) is not included. Any additional material should be included as gravel or material supply or bulk fill.   |

## 6. Sealed pavements

The width of treatments for sealed roads can generally be categorised as follows:

- **Part width** – where there has been damage to the outer wheel path or sealed shoulder. In this case a repair of approximately 2m (machine width) is considered eligible.
- **Half width** – where there has been damage to both the outer wheel path and inner wheel path on a single carriageway. In this case, the repair of the road to the centreline is considered eligible.
- **Full width** – where there has been damage to the outer and inner wheel paths in both carriageways. In this case, a repair of the full sealed width across both carriageways is considered eligible.

Consideration of the type of treatment to be adopted needs to include the condition of the underlying subgrade and usefulness of the in-situ granular pavement material. Where additional pavement strength is required and where still able to represent a value-for-money option compared to the use of pavement reconstruction, a granular overlay (ST7) may also be nominated.

All sealed pavement repair treatments include the following work operations:

- establishment and disestablishment of all plant, labour and materials;

- provision for traffic control during the works;
- removing and reinstating roadside furniture such as guide posts, signs etc. as required; and
- cleaning site and disposing of any waste or removed material in accordance with applicable Victorian Government legislation or local government by-laws.

Treatment selection for the restoration of sealed pavements should be appropriate to the road type, functionality, pre-disaster condition and value-for-money outcomes with reference to site-specific constraints.

## 6.1 ST6 – In-situ stabilisation – including additional material as required

Table 7: ST6 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m <sup>2</sup>   |
| <b>Description</b>     | <p>Where limited damage to the underlying subgrade has occurred, but loss of shape is extensive, in-situ stabilisation may be appropriate.</p> <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• pulverisation of existing road surface;</li> <li>• removal of material not suitable for stabilisation;</li> <li>• importation and spreading of unbound granular material to replace unsuitable material;</li> <li>• pulverisation;</li> <li>• supply and spreading of stabilising agents;</li> <li>• stabilisation of granular material;</li> <li>• compaction, trimming and curing of stabilised granular material; and</li> <li>• two coat bitumen seal.</li> </ul> |
| <b>Exclusions</b>      | All seal items.  |

## 6.2 ST7 – Granular overlay – overlay with imported material (≤150mm)

Table 8: ST7 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m <sup>2</sup>   |
| <b>Description</b>     | <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• preparation or scarification of existing road surface;</li> <li>• importation and spreading of unbound granular material to replace unsuitable material;</li> <li>• provision of onsite stockpiles (if required);</li> <li>• shaping and compaction, and trimming of granular material; and</li> <li>• two coat bitumen seal.</li> </ul> |
| <b>Exclusions</b>      | Treatment of in-situ material or preparation of sub-base and formation work in accommodation of extra pavement height.   |

## 6.3 ST8 – Reconstruct unbound granular pavement

Table 9: ST8 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | m <sup>2</sup>  |
| <b>Description</b>     | <p>Where extensive subgrade failure or material contamination has occurred, and the use of an overlay or stabilised layer cannot economically or suitably bridge the failure, removal and reconstruction of failed pavement will likely be required.</p> <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• removal of failed or damaged pavement material;</li> <li>• allowance for replacement of unsuitable subgrade material;</li> <li>• compaction of subgrade;</li> <li>• importation of granular material;</li> <li>• provision of onsite stockpiles (if required);</li> <li>• placement, compaction and trimming of unbound granular material in layers to match adjoining; and</li> <li>• two coat bitumen seal.</li> </ul> |
| <b>Exclusions</b>      |   |

## 6.4 ST9 – Patch repair – patch unbound pavement failure

Table 10: ST9 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | m <sup>3</sup>  |
| <b>Description</b>     | <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• removal and reconstruction of isolated pavement failures;</li> <li>• removal of failed pavement material;</li> <li>• reasonable allowance for replacement of unsuitable subgrade material</li> <li>• compaction of subgrade;</li> <li>• importation of granular material;</li> <li>• placement, compaction and trimming of unbound granular material in layers to match adjoining; and</li> <li>• two coat bitumen seal.</li> </ul> |
| <b>Exclusions</b>      |   |

## 6.5 ST10 – Pothole repair

Table 11: ST10 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | tonne   |
| <b>Description</b>     | <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• removal and reconstruction of isolated pavement failures;</li> <li>• removal of failed pavement material;</li> <li>• reasonable allowance for replacement of unsuitable subgrade material</li> <li>• compaction of subgrade;</li> <li>• importation of granular material;</li> <li>• placement, compaction and trimming of unbound granular material in layers to match adjoining; and</li> <li>• two coat bitumen seal.</li> </ul> |
| <b>Exclusions</b>      | Line marking.   |

## 6.6 ST11 – Heavy shoulder grading

Table 12: ST11 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | <p>Where loss of shoulder material or scour has occurred, a heavy grading of the unsealed shoulder should be carried out to reinstate the correct formation and profile.</p> <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• recovery of material from adjacent table drains where appropriate (by grader);</li> <li>• incorporation of additional top-up material (approx. 50mm). Where material additional to the included 50mm is required, include gravel or material supply;</li> <li>• tyne, compaction and trimming of material;</li> <li>• brooming of adjacent sealed surface; and</li> <li>• two coat bitumen seal.</li> </ul> |
| <b>Exclusions</b>      | Reshaping or cleaning of table drains – refer to ST17  |

## 6.7 ST12 – Shoulder reconstruction

Table 13: ST12 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• removal of failed shoulder pavement material;</li><li>• reasonable allowance for replacement of unsuitable subgrade material;</li><li>• compaction of subgrade;</li><li>• importation of granular material;</li><li>• placement, compaction and trimming of unbound shoulder granular material in layers to match adjoining;</li><li>• brooming of adjacent sealed surface; and</li><li>• two coat bitumen seal.</li></ul> |
| <b>Exclusions</b>      | Reshaping of table drains – refer to ST17 and works to sealed carriageway pavement.  |

## 6.8 ST13 – Asphalt

Table 14: ST13 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | m <sup>3</sup>  |
| <b>Description</b>     | Asphalt scope includes: <ul style="list-style-type: none"><li>• preparation of the existing surface;</li><li>• supply and application of tack coat;</li><li>• supply, laying and compaction of asphalt (&lt;50mm); and</li><li>• line spotting as required.</li></ul> Bitumen surface scope includes: <ul style="list-style-type: none"><li>• bitumen spray seal, two-coat to local applied standard (including prime) – preparation of the existing surface;</li><li>• supply, carting, heating and application of prime and spraying of bitumen seal (including cutter and additive);</li><li>• supply, carting, spreading, and rolling of prime and seal pre-coated aggregate, line spotting as required; and</li><li>• includes allowance for lapping of seal with existing sealed surface.</li></ul> |
| <b>Exclusions</b>      | Line-marking.   |

## 7. Clearing and earthworks

All clearing and earthworks treatments include the following work operations:

- establishment and disestablishment of all plant, labour and materials;
- provision for traffic control during the works; and
- cleaning site and disposing of any waste or removed material in accordance with applicable Victorian Government legislation or local government by-laws.

## 7.1 ST14 – Bulk excavate surplus material or debris and remove from site

Table 15: ST14 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m3   |
| <b>Description</b>     | Scope includes:<br>bulk excavation of surplus or unsuitable material;<br>loading and removal from site; and<br>any associated tipping and disposal fees. |
| <b>Exclusions</b>      | Reshaping of roadway or drainage lines.  |

## 7.2 ST15 – Bulk fill

Table 16: ST15 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m3   |
| <b>Description</b>     | Scope includes<br>bulk fill to localised scours:<br>to reinstate the road to natural surface level (for unformed roads)<br>for top of formation (for formed roads)<br>for top of road subgrade (for gravel and sealed roads or table drains);<br>sourcing and cartage of bulk fill material;<br>preparation of underlying material; and<br>placement, compaction and trimming. |
| <b>Exclusions</b>      | Purchase of bulk fill material is excluded unless consistent with the displaced or scoured material.   |

## 7.3 ST16 – Rock protection

Table 17: ST16 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | m3  |
| <b>Description</b>     | Scope includes:<br>preparation of work area including establishment of access tracks;<br>placement of geotextile (where required);<br>recovery of displaced rock;<br>importation of rock (as required); and<br>placement of rock. |
| <b>Exclusions</b>      | Pavement works.   |

## 7.4 ST17 – Reshape table drain

Table 18: ST17 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | m |
|------------------------|---|

|                    |   |
|--------------------|---|
| <b>Description</b> | Scope includes cleaning and reshaping of existing single longitudinal surface drain adjacent to the road formation. |
| <b>Exclusions</b>  | Exclusions include scarify, import of material, addition of water and compaction.                                   |

## 8. Road furniture and delineation

Road furniture is often damaged during natural disasters as a result of flood waters or debris impacts. Where damage has occurred to road furniture, the number of units replaced should be commensurate with the pre-disaster arrangements, however the current standard of the pre-disaster system or item should be used.

All road furniture works include the following work operations:

- establishment and disestablishment of all plant, labour and materials;
- provision for traffic control during the works;
- removing damaged road furniture and footings;
- reinstating roadside furniture and footings; and
- cleaning site and disposing of any waste or removed material in accordance with applicable Victorian Government legislation or local government by-laws.

Following restoration of sealed pavements, line marking is generally required. Line marking should be consistent with either the adjoining sections of road, or the pre-disaster arrangement.

Reinstate line marking includes the following work operations:

- establishment and disestablishment of all plant, labour and materials;
- provision for traffic control;
- spotting and setting out of line-marking; and
- applying marking material.

### 8.1 ST18 – Replace road signage

**Table 19: ST18 details**

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | each   |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"> <li>• removal and disposal of damaged road sign and footings (if unrecoverable); and</li> <li>• supply and installation of road sign.</li> </ul>        |
| <b>Exclusions</b>      | Any earthworks or further protection, seal works around road signage and additional road signage that did not exist prior to activated disaster event that may be a requirement of a project safety audit. |

## 8.2 ST19 – Replace roadside barriers

Table 20: ST19 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"> <li>removal and disposal of damaged roadside barriers and footings (if unrecoverable); and</li> <li>supply and installation of roadside barrier.</li> </ul> |
| <b>Exclusions</b>      | Any earthworks or further protection, seal works around roadside barrier.  |

## 8.3 ST20 – Replace guide posts or markers

Table 21: ST20 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | each   |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"> <li>removal and disposal of damaged guideposts or markers (if unrecoverable); and</li> <li>supply and installation of guideposts or markets.</li> </ul> |
| <b>Exclusions</b>      | Additional guideposts or markers that did not exist prior to activated disaster event that may be a requirement of a project safety audit.   |

# 9. Concrete

Damage to concrete may include scouring, undermining, structural cracking, or total loss as a result of large or intense rainfall events.

All concrete works treatments include the following work operations:

- establishment and disestablishment of all plant, labour and materials;
- provision for traffic control;
- provision for access to the work site or area; and
- cleaning site and disposing of any waste or removed material in accordance with applicable Victorian Government legislation or local government by-laws.

## 9.1 ST21 – Reconstruct reinforced concrete

Table 22: ST21 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m <sup>3</sup>   |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"> <li>demolish and remove existing concrete;</li> <li>prepare base, form and position reinforcing (if required);</li> <li>supply, pour concrete, cure (where required) and finish surface; and</li> <li>backfill adjoining surface (where required).</li> </ul> |
| <b>Exclusions</b>      | Revegetation and turfing, removal or realignment of utilities.   |



## 10. Drainage structures

Damage to drainage structures including scouring, undermining, debris impact, separation of units, silting or total loss can occur during large or intense rainfall events.

Where replacement of a drainage structure is required, replacement of concrete pipe or RCBC should be to the same size or arrangement as per pre-disaster. Where replacement to pre-disaster size and arrangement is not possible due to current requirements of cover, or not economical (due to obsolete sizes or combination of pipes) a concrete pipe or RCBC arrangement with a cross-sectional area equivalent to the pre-disaster arrangement should be nominated.

All drainage structure treatments include the following work operations:

- establishment and disestablishment of all plant, labour and materials;
- provision for traffic control;
- provision for access to the work site or area;
- removing and reinstating roadside furniture (e.g. guide posts, signs etc.) as required; and
- cleaning site and disposing of any waste or removed material in accordance with applicable Victorian Government legislation or local government by-laws.

### 10.1 ST22 – Repair drainage structure – excavate, repair and reinstate

Table 23: ST22 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Where separation of culvert cells has occurred, but no damage to the pipes eventuated, ST22 should be nominated.<br>Scope includes: <ul style="list-style-type: none"><li>• excavate, repair and reinstate drainage structure;</li><li>• backfill with suitable material; and</li><li>• reinstatement of pavement.</li></ul> |
| <b>Exclusions</b>      | Pavement seal and rock protection works.   |

### 10.2 ST23 – Replace RCBC

Table 24: ST23 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• excavate and dispose of existing RCBC culvert and end structures;</li><li>• prepare base, supply and install RCBC culvert;</li><li>• construct RCBC end structures; and</li><li>• backfill with suitable material.</li></ul> |
| <b>Exclusions</b>      | Pavement works and rock protection works.  |

## 10.3 ST24 – Replace concrete pipe

Table 25: ST24 details

|                        |  |
|------------------------|--|
| <b>Unit of measure</b> | m  |
| <b>Description</b>     | Scope includes: <ul style="list-style-type: none"><li>• excavate and dispose of existing pipe culvert and end structures;</li><li>• prepare base, supply and install RCBC culvert;</li><li>• construct pipe culvert end structures; and</li><li>• backfill with suitable material.</li></ul> |
| <b>Exclusions</b>      | Pavement works and rock protection works.  |

## 11. Other

### 11.1 OT1 – ‘Other’ – including structures, retaining items

Table 26: OT1 details

|                        |   |
|------------------------|---|
| <b>Unit of measure</b> | lump sum  |
| <b>Description</b>     | Where a treatment does not fit within one of the standard treatments listed above this treatment can be adopted. It is expected that this will include many works undertaken by Catchment Management Authorities (CMAs) as well as complex geotechnical works, bridge repairs, and works of a unique nature. It is important when estimating these works the scope of works is well established and documented. |
| <b>Exclusions</b>      | To be confirmed.  |

## 12. Document information

For the list of documentation related to cost estimation, refer to Appendix A: Cost estimation standard forms and templates.

### 12.1 Document details

| Criteria        | Details  |
|-----------------|--|
| TRIM ID:        |  |
| Document title: | GL-3 Appendix B: Standard treatment guidelines |
| Document owner: | Department of Treasury and Finance             |

## 12.2 Version control

| Version | Date     | Description             | Author |
|---------|----------|-------------------------|--------|
| V1.0    | 12 10 18 | Issued for IDC review   |        |
| V2.0    | 24 10 18 | Issued for IDC approval |        |
| V2.1    | 30 10 18 | Working document        |        |

## 12.3 Document approval

This document requires the following approval:

| Name | Title | Organisation |
|------|-------|--------------|
|      |       |              |

## 12.4 Reference material

| Attached references | TRIM ID/Location |
|---------------------|------------------|
|---------------------|------------------|

| Bibliography                                | Author                    | TRIM ID/Location |
|---|---------------------------|------------------|
| Disaster Recovery Funding Arrangements 2018 | The Australian Government |                  |

## 12.5 Acronyms

| Acronyms | Description                               |
|----------|---|
| CMA      | Catchment Management Authority            |
| DRFA     | Disaster recovery funding arrangements    |
| RCBC     | Reinforced concrete box culvert           |
| REPA     | Reconstruction of essential public assets |

## 12.6 Glossary of terms

| Terms                                       | Description  |
|---|--|
| Commonwealth                                | The Australian Government.   |
| Cost estimation                             | <p>The process of developing the estimated reconstruction cost for the reconstruction of essential public assets by building up the component elements including:</p> <ul style="list-style-type: none"> <li>scoping and defining the works required for reconstruction of the essential public asset;</li> <li>applying relevant assumptions and exclusions; and</li> <li>using available historical data of actual costs (that is, benchmark pricing) and/or supplier quotes to estimate the cost of reconstruction works.</li> </ul>  |
| Eligible disaster                           | <p>A natural disaster or terrorist act for which:</p> <ul style="list-style-type: none"> <li>a coordinated multi-agency response was required; and</li> <li>state expenditure exceeds the small disaster criterion.</li> </ul>   |
| Eligible undertaking                        | <p>A body that:</p> <ul style="list-style-type: none"> <li>is one of the following: <ul style="list-style-type: none"> <li>a department or other agency of a state government, or</li> <li>established by or under state legislation for public purposes (for example, a local government); and</li> </ul> </li> <li>in the operation of the asset provides services free of charge or at a rate that is 50 per cent or less of the cost to provide those services.</li> </ul>   |
| Emergency works                             | <p>Urgent activities necessary following an eligible disaster to temporarily restore an essential public asset to enable it to operate/be operated at an acceptable level of efficiency to support the immediate recovery of a community, and take place:</p> <ul style="list-style-type: none"> <li>prior to the state commencing essential public asset reconstruction works in accordance with these arrangements; or</li> <li>prior to or at the same time as immediate reconstruction works and where no essential public asset reconstruction works are required.</li> </ul> |
| Essential public asset                      | An asset which must be a transport or public infrastructure asset of an eligible undertaking which, the state considers and the department agrees, is an integral part of a state's infrastructure and normal functioning of a community.  |
| Essential public asset reconstruction works | Reconstruction works on an essential public asset directly damaged by an eligible disaster for which an estimated reconstruction cost has been developed.  |
| Estimated reconstruction costs              | The estimated cost of reconstruction of an essential public asset damaged by an eligible disaster and calculated in accordance with these arrangements.  |

| Terms                          | Description   |
|--------------------------------|---|
| Immediate reconstruction works | Immediate activities carried out to reconstruct an essential public asset to its pre-disaster function within three (3) months following damage by an eligible disaster.  |
| Natural disaster               | According to the DRFA, a natural disaster is one, or a combination of the following rapid onset events: Bushfire, earthquake, flood, storm, cyclone, storm surge, landslide, tsunami, meteorite strike or tornado.  |
| Pre-disaster condition         | Condition of an eligible asset prior to the occurrence of the disaster event.   |
| Project                        | For the purpose of defining a project, a project shall be considered one of the following: <ul style="list-style-type: none"> <li>• a single essential public asset, or</li> <li>• a group of related essential public assets which could be contracted jointly.</li> </ul>   |
| Public infrastructure          | An asset that is an integral part of a state's infrastructure and is associated with health, education, justice or welfare.   |
| Reconstruction                 | The restoration or replacement of an essential public asset.  |
| Small disaster criterion       | For the purposes of these arrangements, the amount of \$240,000 or an amount as published by the Australian Government.   |
| Standard treatment(s)          | Common or typical reconstruction or repair procedures undertaken in response to damage sustained from natural disasters.  |
| Terrorist act                  | <p>An action or a series of actions committed in Australia which the Australian Government Minister responsible for the DRFA (Minister) has determined is a terrorist act for the purposes of an eligible disaster under these arrangements.</p> <p>Without limiting the matters to which the Minister may have regard in determining whether the action or series of actions is a terrorist act, the Minister may have regard to:</p> <ul style="list-style-type: none"> <li>• the definition of a terrorist act under section 100.1 of the Criminal Code Act 1995, and if available, the advice of other Australian Government agencies. In the event of one or more acts, the Minister may determine two or more related acts to be a single terrorist act.</li> </ul> |

## Appendix A: Cost estimation standard forms and templates

| Item | Description  | Form/Doc ID |
|------|--|-------------|
| 1    | DRFA Victoria guideline 3 - Cost estimation for essential public assets  | GL-3        |
| 2    | DRFA Victoria fact sheet 3 – Cost estimation for essential public assets | FS-3        |
| 3    | Standard treatment guidelines for cost estimation                        | GL-3 App B  |
| 4    | DRFA Victoria cost estimation tool                                       | VT-CE       |

