GOVERNMENT OF WESTERN AUSTRALIA

DFES Department of Fire & Emergency Services

DRFAWA FACT SHEET

Evidence Requirements for Reconstruction of Essential Public Assets

Information for local governments and state government agencies

This fact sheet is for local government (LG) and state government agency (SGA) asset owners/operators. It provides guidance on the evidence requirements for the repair or reconstruction of essential public assets (EPA)(s) under the Disaster Recovery Funding Arrangements Western Australia (DRFAWA).

Why is evidence so important?

Under Category B of the DRFAWA, assistance is available for the reconstruction of disaster damaged EPA. The DRFAWA is an evidence-based system. Relevant and sufficient evidence is essential to meet the eligibility requirements for the reimbursement of funding to reconstruct EPA(s) through Emergency Works and Essential Public Asset Reconstruction-Lite (EPAR-Lite) or EPAR works. More information about key terms used in this document can be found at Appendix A.

Further information about the different categories of EPAR works can be found in the DRFAWA Fact Sheet: *Essential Public Assets – Categories of Reconstruction Works*.

To be successful for Category B EPA funding under the DRFAWA, applicants must provide evidence, primarily in the form of photographic visual evidence, that clearly demonstrate:

- the exact location, nature and extent of damage and each damaged asset component.
- the pre-disaster condition of the asset, to verify its pre-disaster function.
- the post-disaster condition of the asset, to confirm that the damage is a direct result of the eligible disaster.
- the proposed/completed reconstruction work activities, including treatments and quantities are required to reconstruct the asset to its pre-disaster condition and function.
- works have been fully completed, and in the case of EPAR, have been undertaken in accordance with the approved scope of works.

Evidence requirements for DRFA Category B Works

Applications for funding under all three sub-categories of EPA reconstruction works must include sufficient evidence to meet the relevant clauses under the DRFAWA, which are summarised in Table 1 below.

Before pursuing DRFAWA funding, it is essential that asset owners/operators determine whether they have all required evidence to proceed.

Table 1: Summary of evidentiary requirements for essential public asset(s) reconstruction options

	Emergency Works	EPAR-Lite	EPAR works
Definition	• Urgent activities necessary to temporarily restore an EPA to enable it to operate at an acceptable level of efficiency to support the immediate recovery of the community. • Emergency works are undertaken within 3 months from the date the damaged asset is accessible.	• Permanent EPA reconstruction works with a total cost of $5 million or less. • Works may commence immediately where asset owner/operator has submitted a detailed damage assessment, including a scope of works and estimated cost of reconstruction for all impacted assets and can verify all the evidentiary requirements for EPAR-Lite can be met. • Reconstruction works must be completed within 2-years from the end of the financial year in which the eligible disaster occurred.	• Permanent EPA reconstruction works with a with a total cost of more than $5 million. • An estimated reconstruction costs must be established with DFES Recovery Funding prior to reconstruction works commencing. • Reconstruction works must be completed within 2-years from the end of the financial year in which the cost estimate is established.
Asset eligibility and location	• Asset is owned/operated and maintained by an eligible undertaking. • Asset is an integral part of a state's infrastructure and normal functioning of a community. • Location of the asset.	• Asset is owned/operated and maintained by an eligible undertaking. • Asset is an integral part of a state's infrastructure and normal functioning of a community. • Location of the asset.	• Asset is owned/operated and maintained by an eligible undertaking. • Asset is an integral part of a state's infrastructure and normal functioning of a community. • Location of the asset.
Pre-disaster condition evidence	• Emergency works are followed by EPAR-Lite or EPAR and must therefore have the corresponding pre-disaster condition information available.	• Must be no older than 4 years (LG) or 2 years (SGA) from the eligible disaster. • Must demonstrate the exact location and have a clear link to the same asset's damage evidence.	• Must be no older than 4 years (LG) or 2 years (SGA) from the eligible disaster. • Must demonstrate the exact location and have a clear link to the same asset's damage evidence.
Damage evidence and reconstruction works	• Must be obtained as soon as reasonably practicable, but no later than 2 weeks from the date the damaged asset becomes accessible to the asset owner/operator. • Must be obtained before emergency works are carried out. • Evidence is commensurate with nature and extent of damage • Evidence clearly demonstrates the connection between damage and the disaster event.	• Evidence must be collected no later than 12[1] weeks from the eligible disaster. • Evidence is commensurate with nature and extent of damage • Evidence clearly demonstrates the connection between the damage and the disaster event. • Evidence clearly supports the proposed treatment to address the damage incurred as a direct result of the disaster event to reconstruct the asset to its pre-disaster condition, capacity and	• Evidence must be collected no later than 12[1] weeks from the eligible disaster. • Evidence is commensurate with nature and extent of damage • Evidence clearly demonstrates the connection between damage and the disaster event. • Evidence clearly supports the proposed treatment to address the damage incurred as a direct result of the disaster event to reconstruct the asset to its pre-disaster condition, capacity and

[1] LG (s)/ SGA (s) must seek a time limit extension from DFES Recovery Funding if they are unable to submit their application within this time. This will include providing details of the circumstances impacting the submission of the application within the allowable time

	• Evidence clearly supports the temporary reconstruction works required.	function on a like-for-like (or functionally equivalent) basis.	function on a like-for-like (or functionally equivalent) basis. • Establishment of an estimated reconstruction cost that is verified by an engineer or quantity surveyor that is independent of the asset owner/operator. • Demonstrated evidence that applicable procurement processes are followed
Completion evidence	• Works completed within 3-months from date of disaster event or from when the asset becomes accessible. • Must include visual evidence with all georeferencing and metadata attached that clearly and accurately shows all works completed on each EPA. • Must include a description and list of all the work that was completed at each location along the asset. • Financial evidence showing actual costs incurred must be provided.	• Works completed within 2-years from the end of the financial year the disaster event occurred in. • Must include visual evidence with all georeferencing and metadata attached that clearly and accurately shows works completed on each EPA. • Must clearly demonstrate that the asset has only been reconstructed to its pre-disaster condition, capacity and function on a like-for-like (or functionally equivalent) basis. • Must include a description and list of all the work that was completed on each EPA, including the location. • Financial evidence showing actual costs incurred must be provided.	• Works completed within 2-years from the end of the financial year in which the cost estimate was established. • Variations are made in accordance with the requirements of the DRFAWA. • Must include visual evidence with all georeferencing and metadata attached that clearly and accurately shows works completed on each EPA. • Must clearly demonstrate that the asset has only been reconstructed to its pre-disaster condition, capacity and function on a like-for-like (or functionally equivalent) basis. • Must include a description and list of all the work that was completed on each EPA, including the location. • Financial evidence showing actual costs incurred must be provided.

Pre-disaster condition

Under the DRFAWA, damaged EPA's may be reconstructed to their pre-disaster condition, capacity, and function on a like-for-like (or functionally equivalent) basis. This is the condition the asset has been maintained to and its level of functionality prior to the eligible disaster. For EPAR-Lite and EPAR works, evidence of the location, nature and pre-disaster condition of the EPA(s) must be demonstrated using photographic evidence with all geo-referencing and meta data attached. Where photographic evidence is not available, under the DRFAWA, supplementary evidence may be considered on a case-by-case basis where prior agreement has been provided by DFES.

Table 2: Acceptable forms of pre-disaster condition evidence

Pre-disaster evidence	
Visual data (photographs) with metadata intact **Video footage will not be accepted.**	• For local governments: Latest available data no older than 4-years prior to the eligible disaster. • For State government agencies: Latest available data no older than 2-years prior to the eligible disaster.

	• Pre-disaster condition evidence must be photographs with all geo-referencing and metadata attached that clearly identifies:
	  ○ the date the photograph was taken, and
	  ○ the exact location on the asset.
	• Pre-disaster condition evidence must be of a sufficient number (a maximum linear distance between photographs is 50 meters) to clearly demonstrate:
	  ○ the condition the asset has been maintained to
	  ○ the function of the asset
	  ○ the associated infrastructure on the asset (culverts, drainage, furniture).
	• Pre-disaster condition evidence must
	  ○ directly align to the damage evidence (both location and direction the photograph has been taken).
	  ○ of sufficient resolution to confirm that the defects cited as disaster damage are not present prior to the event.
	• Pre-disaster condition naming convention: Pre_roadname_exactSLK

Where visual evidence is not available, under the DRFAWA, supplementary evidence may be considered on a case-by-case basis where prior agreement has been provided by DFES. Supplementary damage evidence may include:	
Geospatial data	• For local governments: Latest available data no older than 4-years prior to the eligible disaster. • For State government agencies: Latest available data no older than 2-years prior to the eligible disaster. • May include satellite images and aerial mapping images such as Google Maps, Google Earth Pro that clearly show the pre-disaster condition of the asset. • Must include coordinates, as well as the date the imagery was captured. • Must be of sufficient resolution to confirm that the defects cited as disaster damage are not present prior to the event.
Maintenance records	• Must demonstrate detailed information relating to the maintenance activities and the pre-disaster condition of the asset at the location of the damage • Records must identify the asset, its location, and the location, nature and frequency of any maintenance works carried out.
Asset registers/ asset owner asset management system	• Must document the asset type, location, ownership and operational responsibility and demonstrate the asset was functional prior to the disaster, including the location, nature and frequency of any maintenance works carried out.
Inspection report/ certification	• Must be undertaken by a suitably qualified professional and at the same time as the damage inspection immediately following the disaster. • Report must include evidence of the qualifications of the suitably qualified professional, the date the inspection was undertaken, locations inspected (SLK or coordinates) and specific references to both pre-disaster condition and damage incurred. • Only to be used when other forms of evidence are inconclusive or otherwise unavailable.

Pre-disaster evidence may not be required where a road is undamaged, and the works relate solely to the removal of debris (e.g. trees, branches, vegetation).

Damage evidence

To establish a connection between the eligible disaster and the damage sustained, the asset owner/operator must provide evidence of the location, nature and extent of the damage to an EPA. All damage evidence must be collected as soon as reasonably practicable, but no later than 2 weeks for Emergency Works and 12-weeks from the eligible disaster for EPAR-Lite and EPAR.

Table 3: Acceptable forms of damage evidence

Damage evidence	

• **Visual data (photographs) with metadata intact**
• **Video footage will not be accepted.**
	• Damage evidence must be obtained:
	  ○ as soon as reasonably practicable before works are carried out, and
	  ○ no later than 2 weeks (EW) or 12[1] weeks (EPAR-Lite and EPAR) following the event or from the date the damaged asset becomes accessible to the asset owner/operator.
	• Damage evidence must be photographs
	  ○ with all geo-referencing and metadata attached.
	  ○ that clearly identifies the date the photograph was taken.
	  ○ that clearly identifies the exact location of damage on the asset.
	  ○ of sufficient number to clearly demonstrate, the nature and extent of damage at the location on the asset, (As a guide, a maximum linear distance between photographs is 50 meters.)
	  ○ that clearly identifies any associated infrastructure on the asset, such as culverts, drainage, furniture.
	  ○ that directly aligns to the pre-disaster evidence (both location and direction).
	  ○ of sufficient resolution to confirm that the defects cited as disaster damage are not present prior to the event.
	• Damage evidence must demonstrate:
	  ○ the damage caused as a direct result of the disaster event,
	  ○ the damage was not pre-existing and present in pre-disaster imagery,
	  ○ the proposed scope of the reconstruction works required, and
	  ○ that the proposed reconstruction treatment (s) is commensurate with the damage incurred to reconstruct the asset to its pre-disaster condition, capacity and function on a like-for-like (or functionally equivalent) basis.
	• Damage evidence naming convention: Dam_roadname_exactSLK

Where visual evidence is not available, under the DRFAWA, supplementary evidence may be considered on a case-by-case basis where prior agreement has been provided by DFES. Supplementary damage evidence may include:	
Geospatial data	• For local governments: Latest available data no older than 4-years prior to the eligible disaster. • For State government agencies: Latest available data no older than 2-years prior to the eligible disaster. • May include satellite images and aerial mapping images such as Google Maps, Google Earth Pro that clearly show the damage to the asset(s). • Must include coordinates, as well as the date the imagery was captured. • Must be of sufficient resolution to confirm that the defects cited as disaster damage are not present prior to the event. • For further information about visual and geospatial evidence see Appendix 2.
Inspection report	• Must be undertaken by a suitably qualified professional as soon as reasonably practicable but no later than 12[1] weeks from the eligible disaster. • Report must include evidence of the qualifications of the suitably qualified professional, the date the inspection was undertaken, locations inspected (SLK or coordinates) and specific references to both pre-disaster condition and damage incurred. • Only to be used when other forms of evidence are inconclusive or otherwise unavailable.

Completion of works evidence

The DRFAWA provides relief and recovery assistance through the reimbursement of eligible actual expenditure incurred. Claim submissions must include supporting visual, financial and other evidence demonstrating that the reconstruction works have been completed, and for EPAR-Lite and EPAR, that the works have only reconstructed the asset to its pre-disaster condition, capacity and function on a like-for-like (or functionally equivalent) basis. A summary of completion evidence requirements is provided in Table 4.

Table 4 Summary of completion evidence requirements

Evidence type	Evidence requirements

Visual data (photographs) with metadata intact
 	
Video footage will not be accepted.
	• Evidence must:
	  ○ be obtained as soon as possible after completion of works but no later than 4 weeks from when the works were completed.
	• Completion evidence **must** be photographs
	  ○ with all geo-referencing and metadata attached
	  ○ that clearly identifies the date the photograph was taken,
	  ○ that clearly identifies the exact location where the reconstruction works have been completed,
	  ○ of sufficient number to clearly demonstrate the scope of works completed at the location on the asset, including any associated infrastructure on the asset, such as culverts, drainage, furniture. (As a guide, a maximum linear distance between photographs is 50 meters.)
	  ○ must directly align to the pre-disaster and damage evidence (both location and direction)
	• Completion evidence must demonstrate:
	  ○ the works completed have only reconstructed the damaged EPA to its pre-disaster condition, capacity and function on a like-for-like (or functionally equivalent) basis.
	• Completion evidence naming convention:
	  ○ Com_roadname_exactSLK

Financial evidence	• General ledger and/or other transaction reports reconciling to the amount being claimed for reimbursement.
	• Contractors – invoice **must** clearly identify:
	  ○ the name of the damaged asset
	  ○ the locations (SLK or coordinates) for all works completed on that asset
	  ○ the amount being invoiced for each asset, that is supported by documentation such as daily work dockets, plant and equipment log sheets material usage summaries.
	  ○ invoices for materials or other items purchased
	  ○ evidence of reconciliation to the contactors invoice
	  ○ remittance advice demonstrating payment of the invoice.
	• Consultants – invoices **must** clearly identify
	  ○ a detailed description of the specific project design or project management task completed
	  ○ the date and time period during which the task was performed, including relevant activity details
	  ○ vehicle running sheets when mileage is claimed
	  ○ invoices for any sundry expenses being claimed.
	  ○ remittance advice confirming payment of the invoice.
	• Internal Resources – only certain labour costs (salary, wages and associated on-costs) and plant/equipment costs directly related to the works completed are claimable.

Recovery funding submissions and enquiry portal

The DFES Recovery Funding Portal must be used for the submission of all EPAR-Lite and EPAR applications. All applications must be prepared using the DFES Recovery Funding Templates for EPAR-Lite and EPAR.

All photographs must be uploaded using the portal. It is required that all photographs are submitted in folders by asset name, with each folder having a subfolder for pre-disaster, damage and completion evidence. The naming conventions for photographs described in the information above must be adhered to.

Further information and contacts

Further information on the DRFAWA, including fact sheets, guidelines and training is available here:

- 💻 DFES Recovery Funding website
- ☎ Phone: 1800 920 659
- ✉ Email: drfawa@dfes.wa.gov.au

Appendix A – Key Terms

Completion of works evidence: Evidence of completed works is required for Emergency Works, EPAR-Lite and EPAR works claim submissions. Photographic evidence must be provided to clearly identify the exact location and scope of completed works, and to demonstrate a clear link between the pre-disaster condition evidence, the damage evidence and the completed works.

The asset owner/operator must provide a certified acquittal of the project's expenditure with supporting documentation. Where the photographic evidence and acquittal do not meet the DRFAWA assurance or audit requirements, the asset owner/operator will be required to provide additional information.

Failure to provide the required evidence may result in the withholding of final payments or adjustment of payment claims where evidence is insufficient.

Essential Public Asset (EPA): Refers to an eligible transport or public infrastructure asset which is owned and maintained, or operated and maintained, by an eligible undertaking in accordance with the DRFAWA.

Eligible undertaking: is a body that is either (a) a department or other agency of a state government, or (b) established by or under state legislation for public purposes (e.g., a local government) and which, in operating the asset, provides services free of charge or at ≤ 50% of the cost to provide those services.

Engineer or quantity surveyor: Is a professional independent of the asset owner/operator, engaged by DFES to review and verify the estimated reconstruction cost for an EPAR application. The engineer or quantity surveyor must hold relevant qualifications and have at least 10 years' experience in:

• Transport assets: road construction and/or road maintenance; or

• Public infrastructure assets: public-infrastructure construction and/or maintenance.

Damage assessment: A damage assessment is undertaken by the asset owner/operator for each EPA damaged as a direct result of the disaster event. It must be conducted or verified by a suitably qualified professional (SQP) (See SQP definition) with the appropriate expertise and experience from either the state or local government, or a delegated third party.

The purpose of a damage assessment is to provide evidence of the condition of an essential public asset following an eligible disaster, proving the damage is directly attributable to the eligible disaster. The assessment must include all evidence relied upon to demonstrate that the damage to the essential public asset was caused as a direct result of an eligible disaster.

DFES will use a SQP independent of the asset owner/operator (generally an *engineer or quantity surveyor)* to review and sign off the damage assessment and verify the proposed scope of works and cost estimate template.

Damage Evidence: To establish a connection between the eligible disaster and the damage sustained, the asset owner/operator must provide evidence to the location, nature, and extent of the damage to an essential public asset.

EPA Function Framework: Asset owners/operators are required to demonstrate the pre-disaster condition and the pre-disaster function of the essential public asset(s). The EPA Function Framework, outlined in Section 6.3 of the DRFAWA, must be used to determine an asset(s) pre-disaster function.

Step 1: Define primary asset function by establishing:

- **Category:** e.g., transport or public infrastructure, and
- **Sub-category and purpose:** e.g., road, bridge, public hospital, public school.

Step 2: Define asset classification by establishing:

- **Type:** Identify the specific type of asset e.g., for roads consider the configuration (single or dual carriageway), cross-section type (formed, paved, sealed) and the road category (e.g., primary distributor); or for housing consider accommodation type.
- **Capacity:** Identify the number of lanes, load carrying capacity (may be a reference to the traffic type/volume and whether it could be accommodated by the road) e.g., roads - 2 lane local traffic or housing - 2-bedroom, 1 bathroom, kitchen and living.
- **Layout and materials**: Identify the dimensions and layout, list the materials used including other infrastructure e.g., Length, width, pavement build-up (thickness?), design features and interfaces, roadside furniture, material type (e.g., asphalt, concrete, sealed, unsealed)

Inaccessible EPA(s): If an EPA is not accessible immediately following the eligible disaster, the asset owner/operator must contact DFES Recovery Funding as soon as possible to advise DFES of the situation. Satisfactory evidence outlining the reason for the delay and an estimated timeframe to safely access the asset must be provided to DFES.

Pre-disaster condition: Asset owners/operators are encouraged to take proactive steps to collect visual evidence of the essential public assets under their control on a frequency that aligns with the evidence requirements for DRFA eligibility. Photographic data is the required form of pre-disaster condition evidence that will assist asset owners/operators in their applications and claim being eligible under the DRFAWA.

Suitably qualified professional (SQP):
Is a professional, with the appropriate level of expertise defined as:

- for transport assets, an engineer with a relevant qualification and 5 years' experience in road construction and/or road maintenance; or
- for public infrastructure assets, an engineer with relevant qualifications and 5 years' experience in public infrastructure construction and/or maintenance; or
- an operations' or works manager with at least 10 years' experience in road construction and/or road maintenance, or public infrastructure and/or public infrastructure maintenance.

Appendix B – Best practice visual and geospatial evidence

Appendix B provides practical guidance on collecting high quality visual and geospatial evidence to support disaster recovery applications and claims. Comprehensive, well captured photographic evidence enables efficient and accurate assessment.

Best practice photographic evidence

Photographs are the principal and most important evidence component of Category B applications and funding claims. Medium- to high-resolution images are the most effective way to demonstrate the location, nature and extent of damage, and the scope of works undertaken.

Best-practice photographic evidence should:

- be dated, geotagged, clearly labelled, and captured with intact metadata
- be taken in a consistent direction along the asset to support clear comparison between photographs
- support the exact location, nature and extent of damage and the scope of any associated works
- clearly demonstrate all affected asset components, including associated infrastructure such as culverts, drainage and roadside furniture
- be clearly comparable across different stages, with photographs taken from similar viewpoints where practicable
- be clearly and consistently labelled using the preferred naming conventions and unique file references
- be stored and managed in a system that allows easy access and retrieval.

Photograph tips

To improve the quality and usefulness of photographic evidence:

- ✓ use a GPS-enabled camera or device and confirm GPS, date/time and resolution settings before taking photographs
- ✓ select suitable lighting conditions to maximise visibility and reduce shadow, glare or over-exposure
- ✓ take photographs at a range of distances and angles, including close-up views to capture distinctive damaged components
- ✓ use side-view and above-ground views where required (for example, to show culverts, pipes, headwalls, floodways or embankments)
- ✓ include a tape measure, ruler or other reference object where helpful to demonstrate depth, width, size or scale
- ✓ take photographs sequentially along linear assets to demonstrate the continuity of damage or works
- ✓ take completion photographs as soon as practicable after works are finished, and where possible from similar viewpoints to earlier photographs.

How to ensure there is enough photographic evidence

Photographs should be captured in sufficient quantity to clearly demonstrate the condition of the asset, the nature and extent of damage, and the scope of works undertaken.

For linear assets such as roads, images should generally be taken at regular intervals along each damaged length.

As a guide, photographs should be captured approximately every 50 metres, with additional photographs taken where:

- the type or severity of damage changes
- the proposed treatment varies
- terrain, alignment, curvature or crest changes limit visibility
- infrastructure elements (such as culverts or floodways) require specific detail.

Professional judgement should be applied in the field. If there is any uncertainty about whether damage or works are adequately demonstrated, photographs should be taken at more frequent intervals.

Common pitfalls

Common issues that reduce the usefulness of photographic evidence include:

- × photographs missing metadata or geospatial information
- × inconsistent alignment or viewpoint between photographs
- × gaps in coverage where damage conditions change
- × reliance on video footage instead of still photographs.