QRA QUEENSLAND RECONSTRUCTION AUTHORITY

Tip sheet 3

June 2022

Disaster Recovery Funding Arrangements (DRFA)

Practical guide to photo evidence

To claim the eligible costs for the reconstruction of an eligible asset damaged by a disaster activated under the Disaster Recovery Funding Arrangements (DRFA), submissions must be supported by visual and geospatial evidence, such as photos that demonstrate:

- ✔ the post-disaster condition of the asset, including the exact location, nature and extent of damage to the eligible asset and the proposed or completed reconstruction works
- ✔ the pre-disaster and post-disaster condition of the asset, linking the damage to the eligible disaster
- ✔ the proposed or completed works are in line with the pre-disaster function of the asset
- ✔ works completed are in line with the approved scope and timeframes.

Quality, geotagged and well managed jpeg photos are the best way to provide this evidence.

Photo evidence checklist

Collect geo-tagged, quality photos to support each damaged asset, and each damage site:

☐ **number of photos** ensure you collect sufficient photos to enable assessment of the:

- location, nature and extent of damage to the eligible asset, sites and components
- treatments claimed to reconstruct the asset and asset components
- proposed quantities and scope of works.

☐ **photo data and file type** to support the scope of works to reconstruct the asset to pre-disaster function ensure photos are geotagged with GPS coordinates/metadata, and provided as JPEGs.

☐ **time frames** – ensure photographic and other evidence is collected within the required timeframes:

- **pre-disaster** evidence – photo or other evidence collected must be no older than four years before the eligible disaster for local governments, and no older than two years before the event for state agencies.
- **REPA estimates submissions post disaster photos** – geotagged damage photos should be taken as soon as practicable following the event, but no later than 12 months after the event, to support the scope of works.
- **REPA completion evidence** – geotagged photos should be taken as soon as possible after works are completed demonstrating the completed approved works, to be lodged at acquittal.
- **Emergency Works** (EW) geotagged damage photos supporting the need for emergency works, taken after the event and prior to, and/or while undertaking EW.
- **Immediate Reconstruction Works** (IRW) submissions, post disaster photos – geotagged damage photos taken as soon as practicable following the event and prior to undertaking EW or IRW works, demonstrating the location, nature and extent of damage to the assets.
- **completion evidence** – geotagged photos should be taken as soon as possible after works are completed demonstrating the completed scope of works.

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Roads

- ☐ **sequential geotagged photos along chainages** enabling assessment along the claimed extent and nature of damage and the claimed treatment, all taken in the same direction
- ☐ **close-up photos** where required – to highlight damage or damaged components for assessment of both event-related damage and pre-disaster function of the asset, include in the photo a standard measure e.g. ruler/tape measure/straight edge
- ☐ **chainage including orientation/compass** – to enable continued and accurate assessment along the asset location
- ☐ **collect** photos at set intervals along the damaged asset, to clearly demonstrate the location, nature and extent of damage, as well as supporting the need for the proposed scope of reconstruction works.

Culverts, crossings, floodways and table drains

- ☐ **damage photos** – enable assessment of the nature and extent of event related damage claimed on the the eligible asset
- ☐ **close-up photos of each damaged component** – enable assessment of disaster related damage to each component and each proposed treatment to reconstruct the asset e.g. damaged headwall, wash out, scours, rock protection, damaged aprons
- ☐ **up-stream and down-stream, and approaches photos** – provide full damage extent and context: including photos taken across the crossing, up-stream and down-stream, along the road, the approaches, and each damaged component, try and cover every angle
- ☐ **drainage photos** – support locations, nature and extent of damage to the asset - both the length of affected drain and close-ups of damaged area/components.

Checklist: Planning your photo shoot

- ☐ **camera** – use a GPS-enabled camera/device to capture the metadata and exact location of the event damage and the asset
- ☐ **camera settings** – check all settings
  - resolution is set to medium/high for quality photos
  - GPS is on and reporting correct location
  - date and time are correct
  - photo direction/orientation functionality is enabled
- ☐ **camera battery** –battery is fully charged, battery charger and back-up batteries available
- ☐ **memory card** – camera memory/spare memory card available
- ☐ **best time of day** – early morning and late afternoon provide optimum contrast to capture damage to road surfaces – watch out for glare and dark shadows, particularly from trees
- ☐ **angle of photos** – position yourself down low to demonstrate distinctive damage features e.g. pavement deformation or washouts, to help to support proposed treatments
- ☐ **highlight damage** – where damage is hard to see, consider highlighting with spray paint. Remember photos need to demonstrate the exact location, nature and extent of damage caused by the event and support the proposed length, depth and width of reconstruction works
- ☐ **quantities** – use a ruler/tape measure/straight edge to demonstrate depth/width/distance, and for large depths/distances/ widths, consider using a vehicle or scalable feature to demonstrate size.

Checklist: Completion and inspection photos

- ☐ photos are taken as soon as practicable after works are completed
- ☐ photos include GPS coordinates/metadata
- ☐ photos are supplied as JPEG files

Note: Completion and inspection photos may also be used as additional evidence if required to demonstrate asset condition should an asset be damaged by a subsequent event.

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Checklist: Saving and managing photos

The new Management and Reporting System (MARS) portal will be available for council and state agency disaster funding submissions for DRFA events.

To assist applicants and ensure submission photos can be assessed quickly and easily, it is recommended that photos be saved in folders, by asset using descriptive file names, e.g. asset name and chainage. It is also important to use clear file references and always back up files.

Checklist: MARS photo evidence

- ☐ ensure each photo has a unique name
- ☐ photos are JPEG format with embedded metadata
- ☐ each photo file name is no more than 100 characters.

Checklist: Other supporting evidence

Supporting evidence, other than photos, may also be lodged to support the submission

- ☐ pre-disaster evidence including geospatial data, maintenance records or asset registers
- ☐ post disaster evidence such as geospatial data, including satellite images or asset inspection reports.

Where there are (unintended) inconsistencies between this tip sheet, the Australian Government DRFA and the QDRR Guidelines, the DRFA will prevail.

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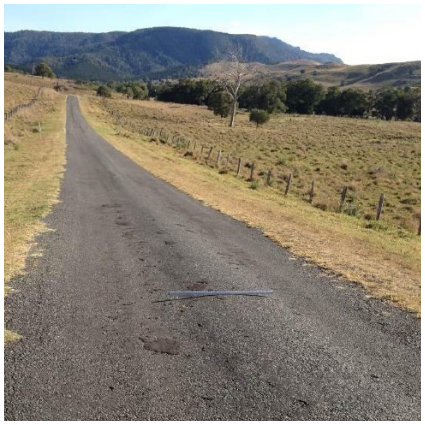
June 2022

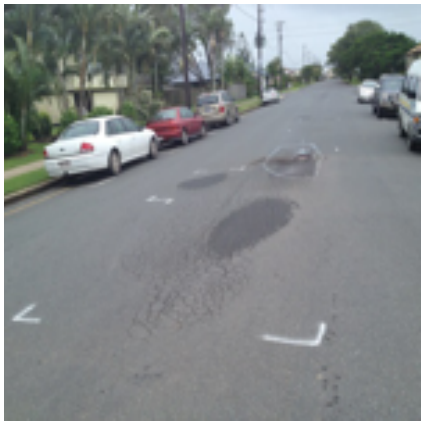
Disaster Recovery Funding Arrangements (DRFA)

Photo evidence

Using a straight edge

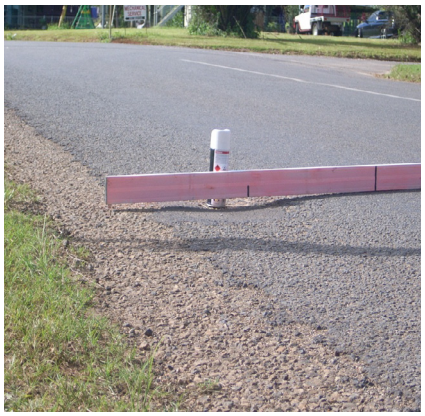


Use a straight edge to demonstrate the nature and extent of damage to the asset



Use spray mark ups to show event damage and proposed scope of works

Ensure photos support both the nature and extent of event damage to the asset as well as the nature and extent of the proposed reconstruction works



Use of straight edge, taken close up and angled level with the damage

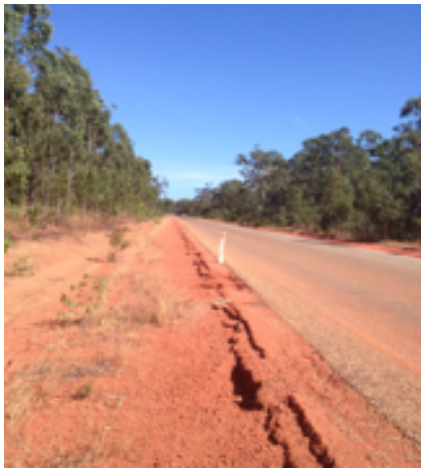


Photo demonstrates location nature and extent of event damage to the asset

Showing scope

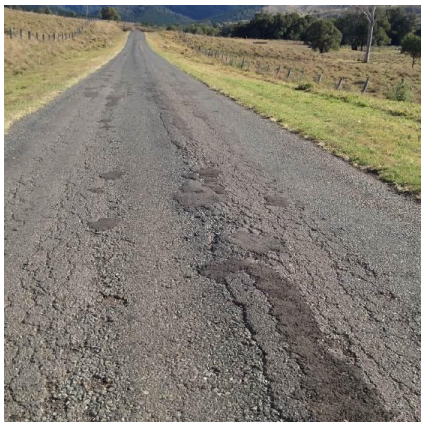
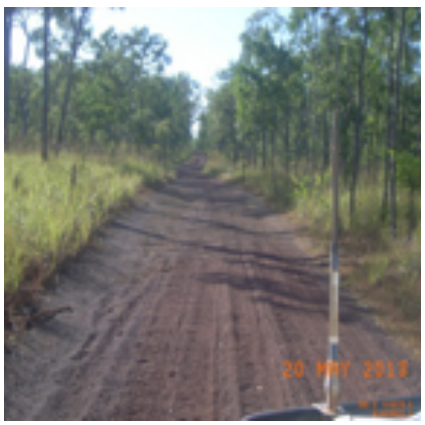
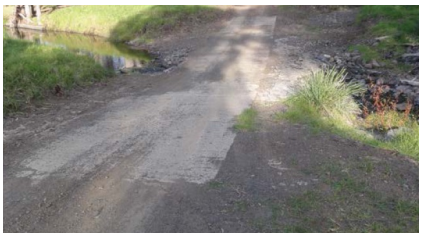


Photo demonstrates post event damage extending into distance



Evidence supporting nature and extent of asset damage is consistant along the distance

Crossings and floodways



Overview of the asset, asset approaches and and crossing location

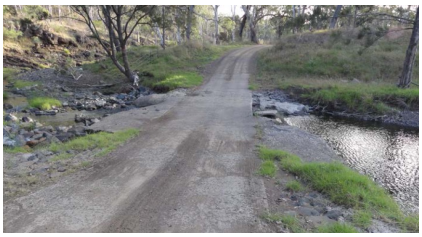
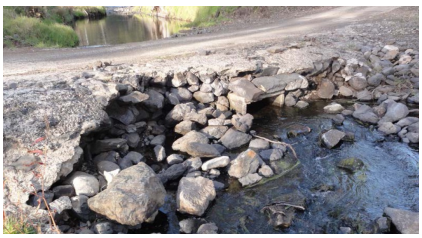


Photo demonstrates overview and asset scouring



Provide close up photos supporting damage to all damaged asset components – eg upstream, downstream and approaches

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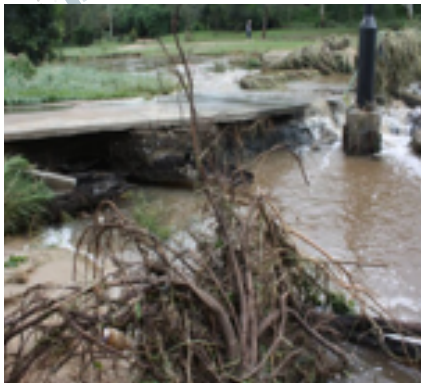
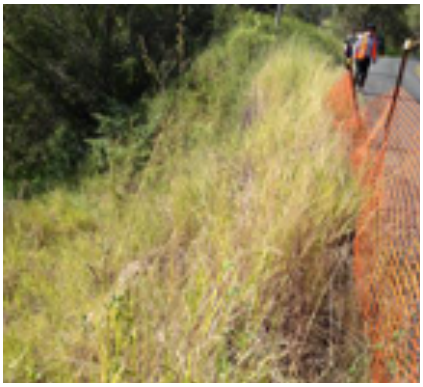


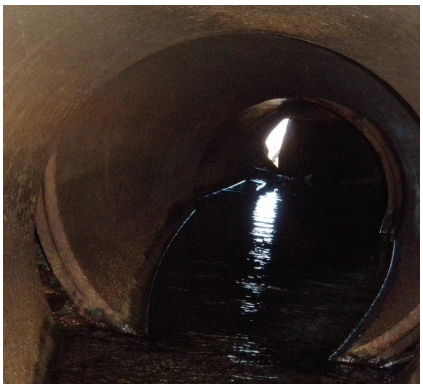
Provide a visual perspective of the nature and extent of damage to the asset and damaged components

Demonstrate event damage to claimed asset components

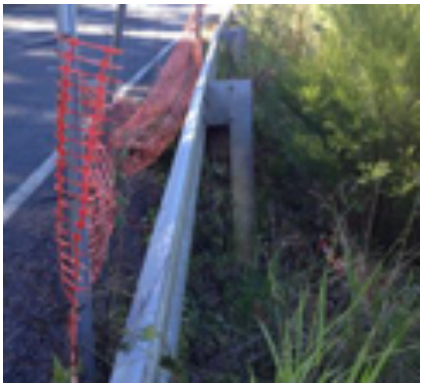


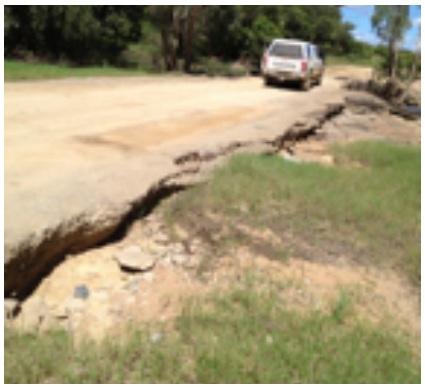
Landslips

Show surface and structural damage to asset and approaches

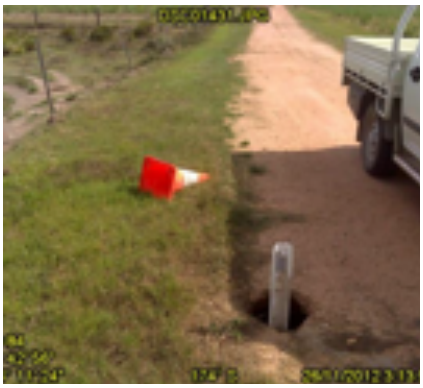


Demonstrate the nature and full extent of event damage to asset components. E.g. inside damaged pipe showing damage

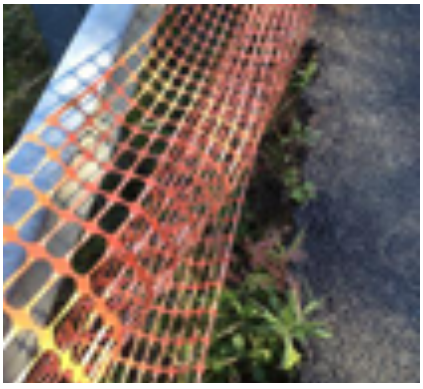




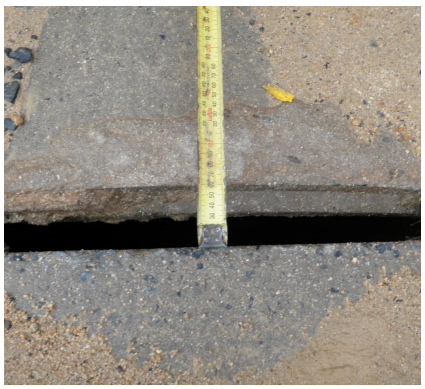
Nature and extent of event damage supporting the claimed scope



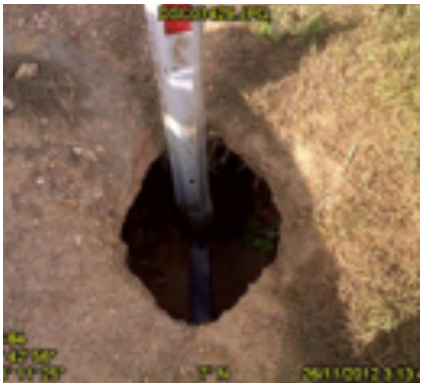
Use a measure, ruler or other available prop to demonstrate extent and nature of damage and support proposed scope of works – e.g. sinkholes/blowholes



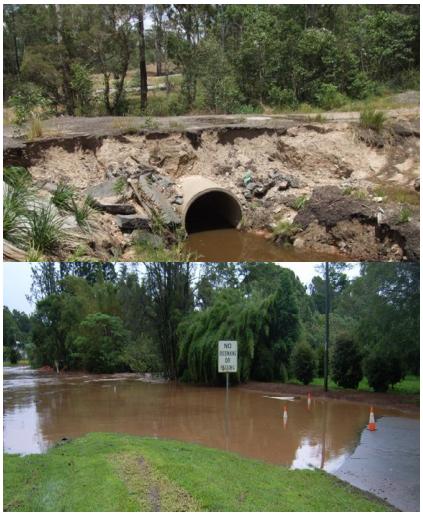
Landslips – show the context of slip and the nature and extent of its impact on the eligible asset



Use a tape to demonstrate the extent of damage to pipe

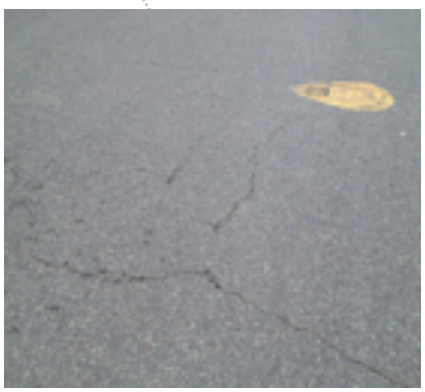


Use of post or measure to demonstrate depth of subsidence

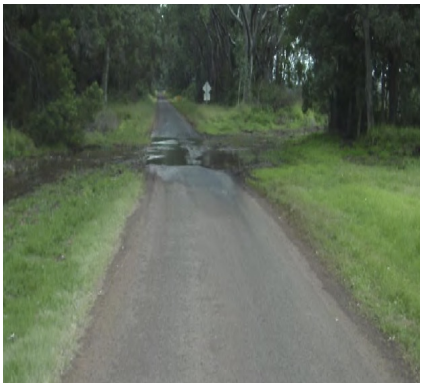


Provides event impact on the asset – full nature and extent of damage to the asset not yet assessed

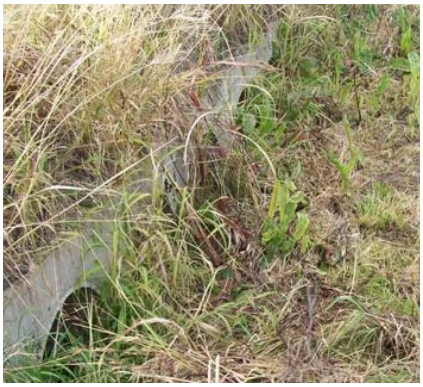
How not to do it



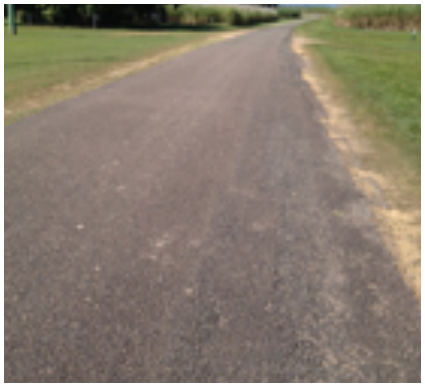
Location, nature and extent of damage to an eligible asset is not evidenced. No asset visible, no significant damage directly related to an event, no perspective of the scale of defects or location.



No event damage visible



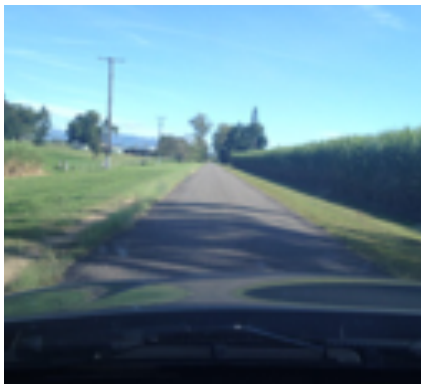
No damage and no asset visible to assess



No event damage evident

Asset not apparent, Damage not apparent

Unable to see damage



Photos taken through windscreens do not demonstrate clear damage or scale of damage

No asset and no damage apparent

Cannot make out damage to asset due to shadows