



Council Roadside  
Reserves Project

REF Template – Routine Maintenance Works: Shoulder Grading

<Project Name>

Prepared By:

Date:

About this document

This document is based on the REF template developed by EMAP Consulting for local councils in NSW as part of the Local Government NSW (LGNSW) Council Roadside Reserves Project. This Project, funded by the NSW Environmental Trust, worked to build the capacity of councils to improve the management of roadside environments.

Guide to this template

The intention is that land managers will work directly into a copy of this template. Instructions and prompts are in grey text boxes. These should be deleted as you work through the template. The red text is for the author’s guidance only and should be deleted at the completion of the document.

Standard writing examples are provided in one of two Excel Workbook (prompts in green text boxes) that accompany this project’s resource kit, which can be amended based on the needs of the project.

This template is for proposed activities identified as ‘Routine Maintenance’. The amount of assessment required is dependent on the nature of the proposed activity and the environmental values of the site, each REF should be prepared with this in mind.

The guidance in this REF template is for guidance purpose only and the author should undertake his/her own review of legislative changes and assessment of best practice.

Document Tracking

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Cover: Roadside Vegetation in Bellingen LGA (Photo: Bellingen Shire Council)

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|  | This project has been assisted by the New South Wales Government through its Environmental Trust. |

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# Description of Activity - Road Shoulder Grading

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| --- |
| Road shoulder grading involves levelling the strip of soil adjoining the sealed road so that the road surface meets the edge of the roadway at the same elevation. A shoulder that is below the road pavement resulting in a ‘drop-off’ is considered a hazard for road users in terms of vehicle control. A shoulder that is higher than the road reduces the ability of water to drain away from the road, consequently resulting in damage to the road pavement and pooling of water on the surface. Shoulder grading is completed using a grader and a vehicle that is able to transport additional fill material to and from the site. |

## Location of the Activity

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| --- |
| Specify the road name, length of road segment, other information to identify location of activity.  Provide a map of the site of the proposed works and attach to this document. |

# Routine Works Checklist

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| --- |
| This section helps you to confirm that your proposed activity constitutes *Low Impact* Routine Maintenance Works, in which case this REF Template is suitable for environmental impact assessment purposes.  If any of the following issues are flagged, you will need to use the Minor Works Template instead, as it includes a more detailed review of legislative requirements. |

|  |  |  |
| --- | --- | --- |
| PERMISSIBILITY | | |
| 1. Is the proposed work permissible under Council’s Local Environmental Plan (LEP)? Name | Yes | If yes, proceed to Q2. |
| No | If no, reject proposal (works not to proceed) |
| 1. Is development consent required for the proposed activity? | Yes | If yes, lodge a Development Application |
| No | If no, proceed to Section 2.1. |

## Legislation Checklist

|  |  |  |
| --- | --- | --- |
| BIODIVERSITY CONSIDERATIONS | | |
| Conduct the following searches: | | **Has the search been conducted?**  **Date and Signature/ initials required** |
| * + [NSW Bionet Atlas](https://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx), 5km search radius | | Date of Search:  Signed: |
| * + [EPBC Protected Matters Search](https://www.environment.gov.au/epbc/protected-matters-search-tool), 5km search radius | | Date of Search:  Signed: |
| * + Vegetation Communities near your proposed work site (via Council’s GIS or [SEED Portal](https://datasets.seed.nsw.gov.au/dataset?q=svtm&sort=score%20desc%2C%20metadata_modified%20desc)) | | Date of Search:  Signed: |
| * + Council’s LEP environmental sensitivity mapping | | Date of Search:  Signed: |
| LIKELIHOOD OF OCCURRENCE AND POTENTIAL IMPACTS | | |
| * Complete the following tables in the REF Methodology Workbook, including the ‘likelihood of occurrence’ and ‘potential impacts’ columns. Include all threatened species from your NSW Bionet Atlas and EPBC Protected Matters searches:  1. Threatened Flora 2. Threatened Fauna 3. TECs | | Date Completed:  Reviewed and Signed: |
| CHECKLIST | | |
| 1. Are there any threatened species (flora or fauna) records that are likely to be impacted by the proposed works?   Note: These are species that are likely to occur within your proposed activity site, and have the potential to be impacted, as identified in the Workbook. | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |
| 1. Are there any Endangered Ecological Communities that are likely to be impacted by the proposed works?   Note: These are species that are likely to occur within your proposed activity site, and have the potential to be impacted, as identified in the Workbook. | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |
| 1. Are there any other areas of high conservation value or environmental sensitivity, such as those identified in your Council’s LEP or other documents | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |
| 1. Are there any other Matters of National Environmental Significance identified in the EPBC Protected Matters search? (eg wetlands of international importance, migratory species records) national or world heritage places) | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |

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| --- | --- | --- |
| HERITAGE CONSIDERATIONS | | |
| Conduct the following searches: | | **Has the search been conducted?**  **Date and Signature/ initials required** |
| * + [AHIMS Basic Search](https://www.environment.nsw.gov.au/awssapp/login.aspx) | | Date of Search:  Signed: |
| * + [NSW State Heritage Register](https://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx) | | Date of Search:  Signed: |
| * + Council’s LEP Heritage mapping | | Date of Search:  Signed: |
| CHECKLIST | | |
| 1. Are there any items of Aboriginal heritage significance in close proximity to the proposed work site? | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |
| 1. Are there any items of non-Aboriginal heritage significance in close proximity to the proposed work site? | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |

|  |  |  |
| --- | --- | --- |
| WATERWAYS | | |
| Conduct the following searches: | | **Has the search been conducted?**  **Date and Signature/ initials required** |
| * + Council’s waterways mapping | | Date of Search:  Signed: |
| CHECKLIST | | |
| 1. Are there any waterways within 40m of the proposed work site? | Yes | If yes, you need to use the “Minor Works REF Template” instead. |
| No | If no, continue. |

# Likely Impacts of Road Shoulder Grading

|  |
| --- |
| This section considers clause 228(2) factors. For any potential impact identified below in sections 3.1 to 3.15, record the specific nature of the impact and identify the mitigation measures that will be utilised to reduce impacts. |

## Any Environmental Impact on a Community

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity on the local community.  For example:   * + Reduced amenity;   + Reduced road capacity;   + Reduced air quality; | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Increased noise levels during machinery operation | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Increased dust levels due to soil movement during grading | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| All equipment to meet Workcover regulations and be fitted with correct noise reduction devices in accordance with manufacturer’s recommendations. | **Yes**  **No** | |
| Equipment to be in good working order and operated in proper and efficient manner. | **Yes**  **No** | |
| Working hours to be restricted to comply with EPA and Council noise regulations. | **Yes**  **No** | |
| Vehicles to keep to designated work areas. | **Yes**  **No** | |
| The road shoulder will be compacted immediately after grading to prevent soil becoming eroded by wind which may result in air-borne dust. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Transformation of a Locality

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity on the locality.  For example:   * + Viability of current and future land uses | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Where road shoulder grading is undertaken beyond the existing footprint, there is potential for progressive widening of the road shoulder and subsequent degradation of adjoining vegetation. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Road shoulder grading will only be undertaken within the existing footprint of the road shoulder, ie within disturbed zone only. | **Yes**  **No** | |
| The activity is consistent with the current landuse and does not compromise the capacity of the land to be used for an alternate purpose in the future. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Environmental Impact on the Ecosystems of the Locality

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity on the ecosystems of the locality.  For example:   * + Terrestrial habitats, vegetation communities, fauna and flora.   + To answer this question, consider the results of your NSW Bionet Atlas and EPBC Protected Matters searches for fauna records within 5km of the project site: <http://www.bionet.nsw.gov.au/> | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Any vegetation to be modified or cleared.  Note the type of vegetation and approximate area to be modified or cleared: | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Dispersal of weed species / propagules through transport on vehicles and machinery and graded soils removed from the site. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Soil compaction leading to reduced growth / regeneration of native species | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Interrupting the life cycle of native species (eg mowing during flowering and fruiting period). | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Pre-works checks will be undertaken to identify any endangered ecological communities, significant wildlife corridors or threatened species or their habitat that may occur in the works area.  NOTE: If these are identified, contact your Council’s environmental officer and/or the Department of Planning, Industry & Environment (DPIE) before commencing works. | **Yes**  **No** | |
| The minimum required road width will be graded so as to reduce the level of vegetation disturbance. | **Yes**  **No** | |
| Machinery will be cleaned before arriving at sites and when moving between sites to prevent transfer of pathogens and weed seeds. | **Yes**  **No** | |
| Additional and appropriate (ie non-erosive) fill material will be transported to the site and not sourced from beyond the road shoulder. | **Yes**  **No** | |
| Imported fill will be weed free. | **Yes**  **No** | |
| Graded soil from weed infested sites will be removed to a designated disposal site. | **Yes**  **No** | |
| Machinery will not be driven over waterlogged soils as this compacts soil and prevents future vegetation growth. | **Yes**  **No** | |
| Graded material will not be pushed into adjoining vegetation, ie into the non-disturbed zone, or into verge windows or down road embankments. | **Yes**  **No** | |
| If native species have been identified within the work site, avoid conducting the proposed works during the flowering or fruiting season of the species identified. Consult Council's environmental officer if in doubt. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Reduction of the Aesthetic, Recreational, Scientific or Other Environmental Quality or Value of a Locality

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity on the aesthetic, scientific, or other environmental quality or value of the locality.  For example:   * + Streetscape, scenic views, lifestyle, convenience, aesthetic quality of natural and built environment | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Removal of native roadside vegetation during grading may reduce landscape amenity and shade and shelter for adjoining properties and road users. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Natural regeneration of native vegetation inhibited by grading leading to long term decline in mature roadside vegetation. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Grading will be restricted to the existing road shoulder footprint, ie to be kept strictly within the existing disturbed zone. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Effect on a Locality, Place or Building Having Aesthetic, Anthropological, Archaeological, Architectural, Cultural, Historical, Scientific or Social Significance or Other Special Value for Present or Future Generations

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Aboriginal heritage, non-Aboriginal heritage | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Physical damage and degradation of Aboriginal heritage (unexpected finds) | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Physical damage and degradation of non-Aboriginal heritage (unexpected finds) | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| If any Aboriginal or non-Aboriginal heritage items are discovered during the course of grading the road shoulder then work at the site will cease immediately. The find will be reported to the Project Manager and referred to the appropriate government agency. | **Yes**  **No** | |

## Any Impact on the Habitat of any Protected Animals (Within the Meaning of the Biodiversity Conservation Act 2016)

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Refer to the results of the 5km search of the NSW Bionet Atlas, for “Protected” species which may be impacted by your proposed works. | | | |
| POTENTIAL IMPACTS | **Yes** | **No** |
| Damage to “Protected” species or their habitat  NOTE: This item refers to species with a status of “Protected” under the NSW BC Act. This does not refer to “threatened species”. Habitat of threatened species is considered in the preliminary checklists in section 2. If threatened species or their habitats will be affected, stop work immediately. Refer to the Minor Works REF Template and consult your Council’s environmental officer and/or DPIE. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Pre-works checks will be undertaken to ensure that any potential habitat for protected fauna will not be affected by the proposed activity. If in any doubt, contact the appropriate officer within Council or DPIE. | **Yes**  **No** | |
| Grading will be restricted to the existing road shoulder footprint, ie the existing disturbed zone. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Endangering of any Species of Animal, Plant or Other Form of Life, Whether Living on Land, in Water or in the Air

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | A picture containing pool ball  Description automatically generated | To answer this question, refer to the REF Methodology Workbook “KTPs” tab for common key threatening processes of routine maintenance activities on flora and fauna. Assessment of Significance (5 part test under NSW *Biodiversity Conservation Act 2016*) and Commonwealth *EPBC Act 1999*. | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| (List relevant KTPs here) | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| If threatened species or endangered ecological communities are identified within the works site or adjoining vegetation, advice is to be sought from the relevant officer within Council and/or DPIE. | **Yes**  **No** | |
| Remove minimum required vegetation and minimise disturbance to remaining vegetation. | **Yes**  **No** | |
| Establish any no-go or exclusion zones prior to works commencing. Ensure all site personnel have been made aware of these areas during their induction. | **Yes**  **No** | |
| Only grade the road surface and never the road reserves unless essential for drainage. Complete grading increases weeds and removes habitat. | **Yes**  **No** | |
| If shoulder grading is for safety, stage the works to minimise impacts. Define the work zone and stay within this area; vehicles and equipment to remain on defined access tracks. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Long-term Effects on the Environment

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Soils, estuaries, creeks, air, aesthetics, noise, climate | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Impacts on local waterways- sedimentation, water pollution | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Loss of riparian vegetation and/or fish habitat | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Impacts on soils – soil structure, erosion, disturbance of acid sulfate soils | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Potential Contaminated Land | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Visible increase in dust pollution | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Impact on noise and climate as a result of long-term natural vegetation and soil removal. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| If proposed works are within 40m of waterways, consider the requirements for Controlled Activities. | **Yes**  **No** | |
| Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets. | **Yes**  **No** | |
| Don’t undertake works if heavy rain expected. | **Yes**  **No** | |
| Manage riparian areas in accordance with Roads and Maritime’s ‘[Biodiversity Guidelines Guidance Note 10: Aquatic Habitats and Riparian Zones' (RTA 2011).](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/guides-manuals/biodiversity_guidelines.pdf) | **Yes**  **No** | |
| If proposed works are in areas mapped as Potential Acid Sulfate Soils, consult your Council’s environmental officer about requirements for an Acid Sulfate Soils Management Plan. | **Yes**  **No** | |
| If proposed works are in areas mapped as Potential Contaminated Land, consult your Council’s environmental officer about any additional environmental safeguards required. | **Yes**  **No** | |
| The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with:   * + [Landcom’s “Blue Book (4th Edition) on sediment and erosion control](https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-editon)   + [RMS Landscape Guidelines](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/centre-for-urban-design/landscape-guideline.pdf)   + [RMS Guidelines for Batter Stabilisation Using Vegetation](https://www.rms.nsw.gov.au/documents/about/environment/guideline-for-batter-surface-stabilisation-using-vegetation.pdf) | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Degradation of the Quality of the Environment

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Soils, estuaries, creeks, air, aesthetics, noise, climate   **Note many of these are the same as for Section 3.8, however in this section concentrate more on the immediate impacts that may cause any degradation of the quality of the environment.** | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Potential impacts on nearby waterways (including sedimentation, other pollutants, disturbance of acid sulfate soils) | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Loss of riparian vegetation and/or fish habitat | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Impacts on soils – soil structure, erosion, disturbance of acid sulfate soils | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Potential Contaminated Land | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Visible increase in dust pollution | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Impact on noise and climate as a result of long-term natural vegetation and soil removal. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| If proposed works are within 40m of waterways, consider the requirements for Controlled Activities. | **Yes**  **No** | |
| Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets. | **Yes**  **No** | |
| Don’t undertake works if heavy rain expected. | **Yes**  **No** | |
| Manage riparian areas in accordance with Roads and Maritime’s [‘Biodiversity Guidelines Guidance Note 10: Aquatic Habitats and Riparian Zones' (RTA 2011).](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/guides-manuals/biodiversity_guidelines.pdf) | **Yes** | |
| If proposed works are in areas mapped as Potential Acid Sulfate Soils, consult your Council’s environmental officer about requirements for an Acid Sulfate Soils Management Plan. | **Yes**  **No** | |
| If proposed works are in areas mapped as Potential Contaminated Land, consult your Council’s environmental officer about any additional environmental safeguards required. | **Yes**  **No** | |
| Measures to minimise or prevent air pollution or dust are to be used including watering or covering exposed areas. | **Yes** | |
| Site management and rehabilitation works will incorporate best management erosion and sediment control practices such as those found in:   * + [Landcom’s “Blue Book" (4th Edition)](https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-editon) on erosion and sediment control;   + [RMS Landscape Guidelines](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/centre-for-urban-design/landscape-guideline.pdf)   + [RMS Guidelines for Batter Stabilisation Using Vegetation](https://www.rms.nsw.gov.au/documents/about/environment/guideline-for-batter-surface-stabilisation-using-vegetation.pdf) | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Risk to the Safety of the Environment

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity  For example:   * + Public health, pedestrian and traffic safety, chemical incidents | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Risk to motorist or pedestrian safety from machinery and flying debris (eg stones and vegetation fragments) | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| When operating, machinery will be confined entirely within the road shoulder or only partially within driving lanes. | **Yes**  **No** | |
| A highly visible slow moving vehicle sign will be placed on the rear of the vehicle/ machinery. | **Yes**  **No** | |
| Rotating yellow safety lights on top of the vehicle cab will be utilised at all times. | **Yes**  **No** | |
| ‘Road Works Ahead’ signs will be placed in a visible location at least 100m in advance of the machinery’ position. | **Yes**  **No** | |
| Machinery to include appropriate safety measures to reduce flying debris (eg guards). | **Yes**  **No** | |
| Work sites to be left in safe condition. | **Yes**  **No** | |

## Any Reduction in the Range of Beneficial Uses of the Environment

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Scenic views, bushwalks, sports, lifestyle, convenience, viability of current and future landuses, aesthetics | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Any other potential impacts that have not been identified as part of this assessment:  (List here): | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Compliance with the operational safeguards included in this assessment will contribute to maintaining the range of beneficial uses of the environment. | **Yes**  **No** | |

## Any Pollution of the Environment

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Air, water or noise pollution | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Vehicle noise and pollution emissions | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Dust pollution caused by soil disturbance | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Excess fill and non-compacted soils directly entering drains and waterways | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Inappropriate waste disposal | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Chemical or fuel spills directly entering drains or waterways | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Disturbance of Potential Acid Sulfate Soils | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Disturbance of Contaminated Land | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| All equipment to meet Workcover regulations and be fitted with correct noise reduction devices in accordance with manufacturer’s recommendations. | **Yes**  **No** | |
| Regular servicing of equipment to be undertaken. | **Yes**  **No** | |
| Working hours to be restricted to comply with EPA and Council noise regulations. | **Yes**  **No** | |
| The road shoulder will be compacted immediately after grading to prevent soil becoming eroded by wind which may result in air-borne dust. | **Yes**  **No** | |
| Erosion and sediment control tools (fencing, hay bales etc) will be utilised if grading is undertaken in rainy conditions, or if rain conditions are expected or if works are within close proximity to a waterway. | **Yes**  **No** | |
| Compaction of the road area will be completed immediately after grading to prevent erosion of materials. | **Yes**  **No** | |
| All surplus material, off cuts, and other debris resulting from the work shall be removed from site and disposed of by a licensed contractor to a licensed waste management facility. | **Yes**  **No** | |
| Any additional fill transported to the site will be free of pollutants including saline or acid sulfate soils. | **Yes**  **No** | |
| All fuels, chemicals, and liquids will be stored at least 40 metres away from any waterway or drainage line as far as is practicable and will be stored in an impervious bunded area within the compound site. | **Yes**  **No** | |
| If proposed works are in areas mapped as Potential Acid Sulfate Soils, consult your Council’s environmental officer about requirements for an Acid Sulfate Soils Management Plan. | **Yes**  **No** | |
| If proposed works are in areas mapped as Potential Contaminated Land, consult your Council’s environmental officer about any additional environmental safeguards required. | **Yes**  **No** | |
| |  |  | | --- | --- | |  | Add other relevant mitigation measures specific to your proposed activity. See **REF Environmental Safeguards and Mitigation Measures Workbook** for examples. | | **Yes**  **No** | |

## Any Environmental Problems Associated with the Disposal of Waste

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Solid, liquid wastes, effluent, | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Pollution of waterways arising from additional fill stockpiled or left at the grading site that may be transported into nearby drains and waterways via water runoff. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Disturbance to native vegetation due to inappropriate stockpiling of waste and materials on site. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| Waste/ litter on site | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Stockpiles to be located away from native vegetation. | **Yes**  **No** | |
| All additional fill and waste will be transported off site and disposed of in accordance with EPA requirements. | **Yes**  **No** | |
| Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day. | **Yes**  **No** | |

## Any Increased Demands on Resources (Natural or Otherwise) that are, or are Likely to Become, in Short Supply

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Water use, energy consumption, natural resources | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Demand on fuel and machinery resources required for mowing and weed control. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Reduce the extent of shoulder grading to the existing footprint to preserve native vegetation and reduce long term demand on fuel and machinery resources. | **Yes**  **No** | |

## Any Cumulative Environmental Effect with Other Existing or Likely Future Activities

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity.  For example:   * + Soil, wetlands, creeks, air, aesthetics, noise, climate | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Progressive, ongoing removal and reduced capacity for natural regeneration of native vegetation caused by grading could result in long term decline and loss of vegetation in the roadside environment. | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| Provided shoulder grading is conducted in accordance with the operational safeguards indicated above, no long term, cumulative environmental effect is anticipated. | **Yes**  **No** | |

## Any Impact on Coastal Processes and Coastal Hazards, Including Those Under Projected Climate Change Conditions?

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Describe the potential impacts of the proposed activity. For example:   * + Proximity of proposed activity to coastal areas, potential impacts on coastal processes | | | |
| POTENTIAL IMPACTS | **Timeframe** | **Type** |
| Any anticipated impact on coastal processes, such as coastal erosion or sea level rise? | **Long term**  **Short term** | **Positive**  **Neutral**  **Negative** |
| MITIGATION MEASURES | **Project Manager sign off** | |
| If the proposed works are to be conducted within the coastal zone, and if any potential impact on coastal processes such as coastal erosion and/or sea level rise are anticipated, contact your Council's environmental officer for more information. | **Yes**  **No** | |

# REF Determination

Select the option that applies to the REF findings for the proposed activity:

|  |  |
| --- | --- |
|  | That the proposed activity will not have a significant impact on the environment and therefore may proceed without modification to the activity description and/or activity location. |
|  | That the proposed activity may have a significant impact on the environment and therefore an Environmental Impact Statement will be prepared. |
|  | That the proposed activity may occur where there is or may be a threatened species or endangered ecological community(ies) are present and therefore an Assessment of Significance (5 Part Test) will be prepared. |
|  | That the proposed activity be modified (as per the conditions stated below) so that it will not have a significant impact on the environment. |

## Conditions

Describe any modifications to the way the proposed activity is to be undertaken, equipment used, location etc, that is in addition to the mitigation measures outlined in this REF.

## Sign Off

|  |  |  |
| --- | --- | --- |
| Prepared By: | Name: |  |
| **Signature:** |  |
| **Title:** |  |
| **Date:** |  |
| Assessed and Determined By: | **Name:** |  |
| **Signature:** |  |
| **Title:** |  |
| **Date:** |  |

|  |
| --- |
| Independence should be maintained between the above roles. This is to ensure that an independent and professional evaluation is made as to whether the REF adequately addresses the impacts of the proposal, whether additional assessment is required and whether adequate controls are proposed. |