# Schedule A - Environmental safeguards

The following safeguards must be incorporated as conditions of contract in any contract or work specification for the project. They must also be incorporated into a project-specific Construction Environmental Management Plan (CEMP), including a map of the project site showing key environmental features identified in the REF.

|  | Safeguards |
| --- | --- |
|  | General |
|  | 'All contractors and machine operators will be inducted on the environmental sensitivities of the work site(s) and relevant safeguards. |
|  | Topography, geology & soils |
|  | 'The Environmental Management Plan (EMP) prepared for the works will include an erosion and sediment control plan. |
|  | 'Erosion and sediment control measures will be consistent with those specified in the Blue Book - Managing Urban Stormwater: Soils and Construction (4th ed, Landcom, March 2004)  |
|  | 'All erosion and sediment control measures will be established before excavation, demolition or vegetation clearance begins and are to remain in place until all surfaces have been fully restored and stabilised. |
|  | 'Sandbags will be placed at the entry points to any culverts and stormwater channels to prevent sediment entering the stormwater system. |
|  | 'Sediment control devices (eg silt fences, straw bales wrapped in geotextile etc) will be installed parallel with the contours of the site and immediately downslope of any areas where the natural ground surface has been disturbed. |
|  | 'Any spoil storage areas or stockpiles will have appropriate erosion control devices installed to control runoff and prevent sedimentation. |
|  | 'Sediment and erosion control devices will be inspected regularly, maintained to ensure effectiveness over the entire duration of the project, and cleaned out before 30% capacity is reached. |
|  | 'Upslope surface runoff will be redirected around work areas by using diversion drains or other methods. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Water quality / Hydrology - Drainage |
|  | 'The storage and handling of fuels and chemicals shall comply with Australian Standard AS1940. |
|  | No chemicals, fuels, and/or related waste will be stored or collected for disposal within or adjacent to drainage lines or unsealed surfaces. |
|  | A 'spill kit' will be kept on site at all times for potential chemical or fuel spills. |
|  | 'Refueling, fuel decanting and vehicle maintenance work will take place in a designated sealed and bunded area. |
|  | 'An Incident Management Plan (IMP) will be prepared as part of the Contractors EMP and will include a contingency plan and emergency procedures for dealing with the potential spillage of fuel or other environmental incidents that may occur on the work site. The IMP should also contain procedures dealing with the unexpected onset of rainfall during the work period. |
|  | Sewage diversion/bypass provisions will only take place if there are guarantees of adequate capacity in the receiving sewer for the flows and sewage surcharges or overflows will not occur. |
|  | 'Water from trench de-watering will be pumped and either collected in tanks for appropriate disposed or filtered through geotextile fabric onto grass filter areas to ensure compliance with discharge standards.  |
|  | 'Drilling water and lubricating fluids will be reused wherever possible prior to disposal at a DECCW licenced waste management facility. |
|  | Appropriate containment measures will be used to ensure that all drilling fluids from directional drilling or boring activities are captured and contained. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Flora, fauna & ecosystems |
|  | 'The full extent of any vegetation clearance will be clearly documented and mapped in site EMP(s). |
|  | 'Materials/equipment lay-down areas will be shown in the EMP(s) and located in cleared or degraded areas to prevent any damage to the surrounding plants or habitat. |
|  | 'Materials, plant and equipment will not be stored within the drip-lines of any trees at the site(s) or near the site(s). |
|  | 'To prevent damage to vegetation outside the boundaries of access tracks/roads, vehicles and machinery will be restricted to designated access roads and tracks. |
|  | 'Where access tracks/roads run alongside areas of natural bushland, protective fencing or paraweb fencing is to be installed along the boundaries of the track/road to prevent vehicles from inadvertently entering/damaging bushland. |
|  | 'Degradation or disturbance to areas of water-side (riparian) vegetation or banks of watercourses will be avoided to the greatest possible extent. Any such areas will be clearly identified in the Environmental Management Plan. |
|  | 'The removal of large isolated canopy trees will be avoided - particularly those with tree-hollows. |
|  | 'Weed removal will be undertaken in accordance with contemporary bush regeneration principles and practices. |
|  | 'All weeds removed from a site(s) will be transported in a sealed container or bag and disposed at a DECCW approved waste disposal facility. |
|  | 'Where works are being undertaken in a weed-infested area(s), all construction vehicles will be cleaned before they leave the site to prevent the spread of weed species. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | **Restoration Activities** |
|  | 'Disturbed areas will be stabilised as soon as possible and in a progressive manner as works are completed. |
|  | 'Mulched/shredded vegetation removed from the site may be used to assist in stabilisation of batters or disturbed surfaces (provided it does not contain weeds). |
|  | 'Where excavated soil is to be used in site restoration, it will be excavated and stockpiled in sequential layers corresponding to the existing soil profile. Topsoil and leaf litter is to be removed first and windrowed in separate stockpiles of less than 1m in height on the upslope side of excavations. Soil layers will be replaced sequentially so that the soil profile is restored as closely as possible to its pre-work status. |
|  | 'The natural landform of the site(s) will be restored as closely as possible to the pre-works condition. |
|  | 'All temporary erosion and sediment control devices such as silt-stop fencing will be removed from the site at the completion of the works or when the site(s) are fully revegetated/stabilised. |
|  | 'Rehabilitation of native vegetation areas will use brush matting or mulching or planting of appropriate local native tubestock. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Air quality & energy |
|  | 'Machinery and vehicles will not be left running or idling when not in use. |
|  | 'Odour or air pollutant emission complaints will be dealt with promptly and the source will be eliminated wherever practicable. |
|  | 'All loads of excavated material, soil, fill and other erodible matter that are transported to or from the work site will be kept covered at all times during transportation and will remain covered until they are unloaded either for use at the work site, reuse or disposal at a DECCW licensed waste disposal facility |
|  | 'All work sites, general work areas and stockpiles will be closely monitored for dust generation and watered down (with clean water) or covered (via seeding or tarpaulins) in the event of dry and/or windy conditions. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Heritage |
|  | 'If Aboriginal objects are discovered during operations, all work will cease in the area and the Contractor will inform the Hunter Water Contract Manager as soon as possible. HWC will advise the preferred course of action & liaise with DECCW and the relevant local Aboriginal stakeholders if required. |
|  | 'If Non-Aboriginal heritage items are discovered during the course of the project, the local council and/or NSW Heritage Office will be notified via the HWC Contracts Manager. |
|  | 'All due care will be taken to ensure that heritage items listed in the REF are not adversely affected by any works. |
|  | 'Hand digging or small machinery will be used in the close proximity of any heritage items to minimise impacts and preserve heritage values. |
|  | 'Protective barriers will be installed to prevent damage to heritage items either located within the site or adjacent to it. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Visual environment |
|  | 'The site(s) will be maintained in an orderly manner. |
|  | 'On completion of the works, all vehicles, construction equipment, materials, and refuse relating to the works will be removed from the work site(s) and any adjacent affected areas |
|  | 'Work sites will be restored as close to their original condition as possible following the completion of the proposed works, unless agreed otherwise. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Noise & vibration |
|  | Work and deliveries will only occur during the following times: Monday to Friday 7am to 6pm, Saturday 7am to 1pm (if inaudible at residential premises) or 8am to 1pm (if audible at residential premises). No construction work or deliveries will occur on Sundays or public holidays |
|  | For construction periods of four weeks and under, the LA10 level measured over a period of 15 minutes when the construction site is in operation will not exceed the background level by more than 20 dB(A) at the site boundary |
|  | For construction period greater than 4 weeks and not exceeding 26 weeks, the LA10 level measured over a period of 15 minutes when the construction site is in operation will not exceed the background LA90 by more than 10 dB(A) at the site boundary. |
|  | 'The operation of noisy plant/equipment will be avoided during early morning and preferably only occur between 9.00 am and 4.00 pm. |
|  | 'All stationary and mobile equipment will be fitted with residential type silencers. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Traffic & access |
|  | The Contractor will prepare a Traffic Management Plan in consultation with the relevant traffic authority(s). |
|  | 'Appropriate exclusion barriers, signage and site supervision will be employed at all times to ensure that the work site is controlled and that unauthorised vehicles and pedestrians are excluded from the works area. |
|  | 'All traffic control devices will be in accordance with AS 1742.3-1996 "Traffic control devices for works on roads". |
|  | 'Pedestrian and vehicle access will be maintained to buildings by alternate means, such as ramps, if the proposed works obstruct access to the buildings for an extended period of time. Residents/ occupiers to be notified in advance if obstruction to access is likely to occur. |
|  | 'Vehicle access routes to and within the site(s) are to be defined via 'paraweb' or other clearly visible and robust fencing. |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Land use, services & public amenity |
|  | 'Surrounding residences directly affected by the works will be notified at least 14 days in advance of the proposed commencement of works, work methods and the duration of the construction period. |
|  | Where entry to private properties is required, a notice of entry letter will be provided at least 24 hours in advance. |
|  | The contractor will personally contact the occupant when they enter a private property to notify of their presence and what works are intended. |
|  | 'Any accidental damage to property occurred by the works must be repaired in consultation with the owner as soon as practicable. |
|  | 'The Contractor will maintain a complaints register. Any complaints received will be responded to as soon as possible. |
|  | 'All services in the vicinity of the works will be located in the field and 'pegged-out' and noted in the Environmental Management Plan and/or work plans prior to excavation works - "dial 1100 before you dig". |
|  | 'Work sites will be restored as close to their original condition as possible following the completion of the proposed works. |
|  | 'Accurate public information signs will be displayed while work is in progress and maintained in presentable manner. |
|  | 'If tree removal has been approved in a residential area, all local residents in the immediate vicinity of the tree(s) will be notified via letter/notice  |
|  | Insert other safeguards as applicable….. |
|  |  |
|  | Waste generation |
|  | 'All waste generated during the course of the works will be reused or removed from the work areas as soon as practicable and disposed of in accordance with waste disposal regulations. |
|  | 'All vessels used for contaminated or hazardous waste should be sealed, labelled according to their contents, and stored within bunded areas until their removal from the work site. |
|  | 'Any fuel, lubricant or hydraulic fluid spillages will be collected using absorbent material and the contaminated material disposed of at a DECCW licensed waste depot. |
|  | 'The work site(s) will be left clean and free of weeds, debris and other rubbish at the end of works. |
|  | 'All hazardous wastes on site will be removed and disposed in accordance with the state and national regulations and guidelines and best practice for the removal of these materials. |
|  | 'The Contractor’s recycling and reuse proposal will be detailed in the EMP. |
|  | Excess spoil material that cannot be reused or recycled will be removed from the site and disposed of at a DECCW licensed facility |
|  | Insert other safeguards as applicable….. |
|  |  |