

Queensland checklist for

CLEANDOWN PROCEDURES



**Queensland
Government**

Department of
Natural Resources

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Cleandown procedures

Mobile/on site

The cleaning of vehicles and machinery on site prevents weed seed contaminants being spread to an adjoining weed free or less infested area/property/road.

Mobile/field site selection

- The most important point to consider is run off. Ensure the site is away from watercourses and drains. This will prevent weed seeds, grease and detergents polluting the stream.
- The site should be relatively flat (a slight slope or railway sleepers may prevent water logging) to help prevent run off and for safety reasons.
- The site must be easily identified for future reference as this location will need monitoring for future outbreaks in the following seasons. The landholder/trustee of the land should also be notified of this location. (a painted post, tree, distinguished landmark or GPS recording is ideal)
- An area that is well grassed will reduce mud during cleaning down and assist as competition for any weed seed that later germinates.
- Landholders should be consulted to determine a suitable cleandown site
- The site should be close to the infested area to prevent further spread.
- Avoid crossing the property boundary prior to cleaning -down (unless the infestation is also located on the adjoining property at similar or higher densities)
- Small cleandowns may be conducted at the landholders shed facilities (with permission) prior to leaving the property.

Suggested equipment

- A mobile water tanker or spray unit is ideal
- Water may also be pumped from a dam or cattle trough/tank
- High pressure water from a gurney or pump
- An air compressor for removing dry material (radiators and grain headers)
- Broom/dust pan (cleaning cabins)
- A garden hose may be adequate for small cleandowns

Public cleandown facilities

- Throughout Queensland there are numerous cleandown facilities available for public/industry use for the purpose of cleaning vehicles and machinery to prevent weed seed spread.
- Some facilities are of suitable standard (listed below) and contain high pressure water and air compressors.
- Where possible these facilities should be utilised as they are equipped with grease and silt traps for environmental protection.
- Most towns have a wash-down pad (eg at saleyards/ council depots) that may be of adequate standard to cleandown machinery and vehicles. (**NB – Council permission may be required**)

Washdown facilities

Location	Standard	Shire
Emerald – saleyards	New Facility – suitable standard	Emerald
Biloela – saleyards	New facility being built	Banana
Rolleston – water treatment works	Suitable Standard – possible upgrade	Bauhinia
Gracemere – saleyards	New facility being built	Fitzroy
Alpha	New facility being built	Jericho
Monto – water treatment works	Unknown Standard	Monto
Charters Towers – Dalrymple saleyards	Suitable Standard	Dalrymple
Springsure – saleyards	Suitable standard – possible upgrade	Bauhinia
Baralaba – saleyards	Suitable Standard	Banana
Moura – water treatment works	Suitable Standard	Banana
Injune – saleyards	New Facility – suitable standard	Bungil
Taroom – saleyards	New Facility – suitable standard	Taroom
Bedourie	Suitable standard	Diamantina
Barcaldine	Suitable standard	Barcaldine
Dululu	Suitable standard	Banana
Theodore	Suitable standard	Banana
Charleville	New facility	Murweh
Roma	Suitable	Roma Town
Stanthorpe	Suitable	Stanthorpe
Pomona	Suitable	Noosa
Eumundi	Suitable	Noosa
Mareeba	Washdown pad	Mareeba
Richmond	Washdown pad	Richmond
Cloncurry	Washdown pad	Cloncurry
Tambo	Washdown pad	Tambo
Eromanga	Washdown pad	Quilpie
Quilpie	Washdown pad	Quilpie
Mitchell	Washdown pad	Booringa
Surat	Washdown pad	Warroo
Chinchilla	Washdown pad	Chinchilla
Gympie	Washdown pad	Cooloola
Kingaroy	Washdown pad	Kingaroy
Dalby	Washdown pad	Dalby Town
Crow's Nest	Washdown pad	Crow's Nest
Carlovers and other private facilities	Suitable for cars and light trucks only	Various

For further information or for permission to use these facilities contact should be made with the respective shires.

Cleaning procedure

(guide only) – ensure all safety precautions are taken (read vehicle/machine/equipment operating manual prior to cleaning).

- Place vehicle/machine in a safe position - stable and immobile
- Stop engine, apply park brake, chock wheels and lower all implements or secure/chock them if they are required up for cleaning (eg slasher)
- Ensure the area is free of obstructions/objects that may cause injury (logs, powerlines etc)
- Examine the item for cleaning to determine extent of mud, dust and plant material build up.
- Identify any points that require specific attention eg behind guards and protective plates, radiators, spare tyres etc these may be difficult to locate and access.
- Remove necessary guards/belly plates to access areas for cleaning.
- Identify areas that may require cleaning with compressed air rather than water. Do these first.
- Clean under guards and underneath machinery/vehicle and then do the cabin, upper body and implements.
- Tool boxes and storage compartments may also require cleaning.
- Move vehicle/machine with caution. Avoid re-contamination, wash remaining mud etc on tyres/tracks.
- Carry out final inspection to ensure all areas have been cleaned.
- Replace guards (belly plates and other guards on heavy machinery may need to be replaced prior to moving the machinery).

Maintenance work

- A hard surfaced area such as a gravel area beside the property owner's shed is ideal for this situation as it allows work to be carried out, parts may be removed and the area can be monitored.
- If the maintenance work is to be done in the field/paddock, the area should also be noted or marked as a reference for future monitoring.
- During maintenance, weed seeds may fall off the machinery as a result of guards etc being removed.

Machinery and vehicle cleandown

Points to consider when cleaning-down vehicles and machinery:

No procedure or work instruction can list all the parts to consider during cleandown of vehicle, machinery and equipment due to factors such as:

- Numerous different models and new models
- Different attachments (eg. Different types of blades on dozers)
- Different modifications, either in the factory or frequently by the previous owner
- Varying condition of the machinery, eg. Rusted parts allowing entry of contaminants into sections usually sealed etc.

The following areas are provided as an initial guide only to be considered as a minimum when cleaning down the following:

Headers and harvesters

All harvesters

1. The area under the skid plate
2. Each header knife and finger
3. The auger located horizontally across the header
4. The area behind any cover on the header
5. The area within any belts on any draper front (if fitted)
6. The feeder house
7. The driver's cab compartment floor area
8. The cleaning fan and the area between the bottom of the fan housing and any shield under the fan housing
9. The chassis, including the inside of any chassis rail ledges, back axle -beam and undercarriage areas
10. Any tailing auger
11. Any sieve area, including the full length and width of the grain pan
12. Any grain bin area, including any auger
13. The engine compartment, including the radiator core
14. Any grain or repeat elevator including any cups and rubber flights
15. Any straw spreader or chopper
16. Any tyres and rims.

Conventional harvester

17. The threshing or separating area, including the drum and concaves behind the rasp bars and lead-in plates and around concave wires.
18. The beater drum, including the area between the drum and walkers.
19. The straw walkers, including the beater and the chaff pan, underneath any straw walker and any concealed areas under rubber air flaps.

Rotary harvesters

20. The external top and sides of the conical section of the rotor cage
21. The areas inside the top of the conical section
22. The threshing or separating area, including along the rotor cage.

Cotton pickers

The following areas are provided as an initial guide:

1. Row units

- Examine the picking heads externally for cotton trash/plant residues/soil
- Open all picking head inspection doors to expose moisture racks, doffers, spindle bars and rotor assemblies
- Manually rotate and inspect the rotor assemblies
- Open rear inspection doors on air ducts located at rear of picking heads
- Raise picking heads to inspect underside.

Note: the picking heads are held up by hydraulics – DO NOT climb underneath unless heads are safely blocked in the raised position.

2. Drivers cab

- Check externally under and around drivers cab, check under mats in cab, check the air conditioning system (where fitted) including ducts and filters.

3. Horizontal air ducts

- Remove/open all cover inspection panels (these ducts convey cotton from the front picking section to the basket).

4. Basket

- Inspect basket roof.
- Access the internal parts of the basket through hinged door on the roof (ladder required to climb into the basket).
- Tip or elevate basket (depending on model) to inspect underside, drive shaft assemblies, blower fan, and hollow basket support frames located on the LHS of some models.

Note:

1. The meshed surface area of the basket will NOT support a person's weight – walk on the perforated metal walkways ONLY which run from back to front of the machine.
2. The basket is lifted by hydraulics – DO NOT climb under basket unless it is properly and safely secured in its raised position.

5. Inspect air ducts from the top.

6. Undercarriage/chassis

- Check all underside of machine, chassis rails, and telescopic rear axle if fitted.

7. Engine

- Remove cover panel to expose top of radiator (this can be done when basket is in raised position).
- Remove or open all screens on the engine, radiator and fuel bays.

8. Tyres

- Check for any soil or other contaminants.

Wheeled tractors

The following areas are provided as an initial guide:

1. Tyres and Rims – inspect all parts of tyres and rims, including inner side of rim.

- Between dual wheels (if fitted).
- Check for wheel mounted counter – weights.
- Gashes or cuts in tyres.

2. Engine

- Check radiator core and grill for residues.
- Check for void between oil cooler and radiator (oil cooler may be hinged or on slide).
- Remove and check air filters/cleaners, pre-cleaners and cyclone style dust separators (if unable to clean satisfactorily, these may require destruction).
- Inspect sound deadening foams and heat shields for soil and trash (foams become impregnated with dust).

3. Drivers cab (where present)

- Check externally under and around drivers cab.
- Check under mats in cab and void space and skirt under suspended seats.
- Check air conditioner filters (if fitted), (most large tractors will have a false cabin roof housing the air-con unit, remove or open false roof).
- Check integrity of rubber door and window seals, if torn, trash and dirt will be sucked into them and trapped.
- Check void space behind consoles and dash for trash and dirt residues.

4. Chassis and vehicle body

- Check inside of chassis rail ledges and back axle -beam and undercarriage of this area.
- Check for hollow sections in front axle tubes.
- Inspect all tool boxes and battery boxes often under the cab steps or in engine bay.
- Check for void spaces in rear brake assemblies.
- Hollow sections in drawbars and hollow sections in retractable/extendable type three point linkages.
- Inspect single counter-weights, multiples may need to be removed to facilitate cleaning of void spaces.
- Inspect mud guards and wheel flares for hollows and crevices.
- Inspect roll cages or roll over bars for holes and gaps where attached to the vehicle.
- If 4WD drive, check for torque tube (front drive shaft guard) for holes or poor attachment.
- Inspect PTO (Power Take Off) area, PTO shaft, universal joints, shaft covers/PTO tubes.
- Inspect wiring looms in split protective conduit for trash and dirt residues.

Note: some agricultural tractors will have a rear carry-all mounted on the three point linkages or a forward mounted forklift or bucket/scoop attachment – these should be inspected carefully. Particular attention should be given to the following:

5. Buckets, blades, scoops

- Inspect all areas of the blade for holes or double skins.
- Inspect and remove cutting teeth, adaptors and wear plates on blades.
- Inspect hydraulic arms and supports for hollows that may contain soil and trash.

6. All areas

- Check if any sections or channels are hollow and determine if there is a possible entry point for contamination. Check if plates are covering a compartment or space that may have collected dirt/trash.

Mini tractors

The following areas are highlight some of the main areas of concern on mini-tractors:

1. Tyres and rims - inspect all parts of tyres and rims, including inner side of rim.

- Check for gaps in split type rims.
- Cuts and gashes in tyres.
- Wheel mounted counterweights.

2. Chassis – check inside of chassis rail ledges.

- Carefully inspect the chassis for hollow areas and cover plates that may conceal void spaces.
- Void spaces in the area between gearbox and engine (several models have a large void opening accessible from underneath).
- Void spaces in counter-weights, multiples may need to be removed to facilitate cleaning.
- Hollow sections in subframe under motor linking the chassis rails.

3. Engine

- Remove grill (usually 2 wing nuts) and clean, inspect and remove wire mesh screen from front of radiator and clean, inspect fan shroud at rear of radiator.
- Remove and inspect air filter cover, remove dust dish from air filter cover, remove and check air filter/cleaner (if unable to clean satisfactorily, these may require destruction).
- Check around fuel tank and brackets for dust and trash build ups.
- Inspect all areas in bonnet and in engine bay for hollows.

4. Other

- External rear brake assemblies and common shaft for brake and clutch pedals
- Foot plates and mounting brackets.
- Hollow sections in mudguards, joints between mud flaps and guard, wiring looms under guards.
- Inspect tool box under seat or under fuel tank, remove contents to allow cleaning.
- Inspect torn seats and exposed foam at rear of seat (seed and soil can become lodged in the cushioning).
- Inspect rear axels for track width adjustment pin holes.
- Inspect the drawbar and mounting.
- Inspect the three point linkages and operating levers.

Implements – PTO rotary hoe

The following areas highlight some of the main areas of concern on Power Take -Off (PTO) driven rotary hoes:

- Inspect rotary tynes and mounting bolts for soil, tynes may need to be removed or loosened from their adaptors on the horizontal shaft to allow removal of soil from the void.
- Remove or loosen the skid/wear plate from the vertical gear casing (note that this casing is oil filled, thus remove or loosen only those bolts securing the plate) .
- Inspect the body of the hoe for double skins or void spaces that could contain soil due to inadequate or incomplete weld joints etc.
- Inspect all areas where mud flaps are attached or plates overlap.
- Check for hollow section reinforcing ribs.
- Inspect the three point linkage attachment points and PTO knuckles and tube, universal joints and shafts.
- Inspect all ground engaging areas of the hoe for signs of wear for the ingress of soil or plant material.
- Rotate the rotary shaft and probe for plant material that may be caught in the bearing housings at the ends or middle if twin shafted.
- Inspect the frame and supports and mounts for the trailing wheels – these are often hollow sections.
- Inspect the trailing wheels for the rotary hoe, these wheels are usually hollow and made from two pieces of metal welded together – with wear the metal and welds crack and the wheels fill with soil.

Remember, the key to a successful cleaning is more than just checking the above areas – you must ensure that your inspection is thorough, systematic and consistent.

Track type dozers

1. Drivers cab

- Check externally under and around driver's cab.
- Check under mats in cab.
- Remove/lift seat; remove/lift floor pans to allow checking to top of transmission.
- Check air conditioner filter (if fitted) – shake/tap filter to check if clean.

2. Tracks/track frame

- Examine tracks carefully.
- Ensure inspection/cover plates are removed to allow inside track area.
- Check idler wheels (these support the tracks).

3. **Belly plates** should be removed to allow inspection and cleaning.

4. **Rear plates** at back of dozer should be removed to allow inspection and cleaning.

5. **Hydraulic cover plates** should be removed to allow inspection and cleaning.

6. Engine

- Check radiator core and engine area for residues.
- Remove and check the air filter/cleaner (these often require replacement where they are clogged with contaminants).
- Check carefully the void space between the oil and radiator cores.

7. Battery box

- Lift/remove the battery to check for contamination (battery box may be at side/rear or under seat).

8. Fuel cells

- Are removable therefore dirt etc can pack between the tank and the frame.

9. Blade

- Ensure that edge of blade top/bottom is not split – this allows soil to be packed very tightly in the hollow.
- Check cutter points/wear blades.
- Check truncation arms.
- Check carefully the pivot points and adaptors at the rear of the front blade – these allow the blade to change height and angle. Sometimes soil has compacted and is difficult to dislodge.
- Check all hollow sections.

10. **Ripper support frame** is usually hollow.

- Check carefully if any contaminants have entered this section. The tynes may need to be removed.

11. Tynes

- Tynes need careful inspection. Contamination may often be removed by water blasting, but tynes may need to be removed in some cases.

12. Ripper points

- A pin holds on the ripper points. Dirt can compact under the ripper points.

13. All areas

- Check if any sections or channels are hollow and determine if there is a possible entry point for contamination. Check if plates are covering a compartment or space that may have collected dirt/trash.

Remember, the key to a successful cleaning is more than just checking the above areas – you must ensure that your inspection is thorough, systematic and consistent.

Excavators

Check all areas, with special attention to:

1. **Hollow section chassis channels.**
2. **Turret pivot area.**
3. **Channels for hydraulic hoses from drive motor.**
4. **Counterweight void spaces.**
5. **Engine bay floor.**
6. **Fan shroud and radiator cores.**
7. **Glacier plate (near radiator).**
8. **Air filters (shake/tap filters to determine if clean).**
9. **Removable track adjuster guards and lubrication points.**
10. **Tool box**
11. **Arms/booms – usually the pivot points are the only area of concern.**
12. **Bucket/blade**
 - Between teeth of adapters.
 - Wear plates.
13. **Rear blade (stabiliser)**
 - Wear plates.
 - Hollow section arms.
 - Hollow section blade.
14. **Mini – excavator**
 - Hydraulics console.
 - False floor.
 - Turn table – running gear/tracks – internal gaps.

Wheeled loaders and compactors

Check all areas, with particular attention to the following:

- 1. Feet of adaptors on compactors**
- 2. Hydraulic points**
- 3. Articulation points of hydraulics**
- 4. Brake assemblies**
- 5. Blade wear plates**
- 6. Blade teeth and adaptors**
- 7. FOPS and ROPS canopy**
 - Hollow channels.
 - Void space between cab and body (bird's nests have been found here).
- 8. Air cleaner and air filters**
- 9. Internal of cab, floor and mats**
- 10. Air conditioner unit**
- 11. Counterweight void spaces**
- 12. Under and around removable fuel cells**
- 13. Between dual wheels (where applicable)**
- 14. Check for water filled between wheels or drums**

Dump trucks

Check all areas, with particular attention to the following:

- 1. Internal of cab, floor and mats, behind and under seats.**
- 2. Air cleaner**
- 3. Air conditioner unit**
- 4. Hollow channels in tray frame**
- 5. Between dual wheels (where applicable)**
- 6. Body and tipper**

Cars, trucks and 4WD

1. Inspect the interior of the vehicle, especially:

- Footwells, check carpets and mats for burrs, seeds, mud, water etc.

2. Inspect inside the boot of the vehicle.

- Carpet (deposits of hay, weed seeds, burrs and/or soil or water).
- Spare tyre area.
- Other recesses in the boot/rear of the vehicle.

3. Inspect the engine bay, especially:

- Radiator
- Grill
- Top of transmission gearbox
- Recess under windscreen wipers
- Air filters

4. Inspect the underside of the vehicle, especially:



- Wheel arches, wheel trims, flares, step treads, bumpers
- Mud flaps
- Tyre rims (particularly the rear side)
- Axels and diffs
- Spare tyres on 4WD's and station wagons are often suspended underneath. **Note:** these are potentially a high risk area as contaminants collect inside the horizontally-positioned rim.

5. Inspect tool boxes, ladders and storage compartments.

6. Inspect the back/tray of trucks and 4WD for soil, seed and plant material.

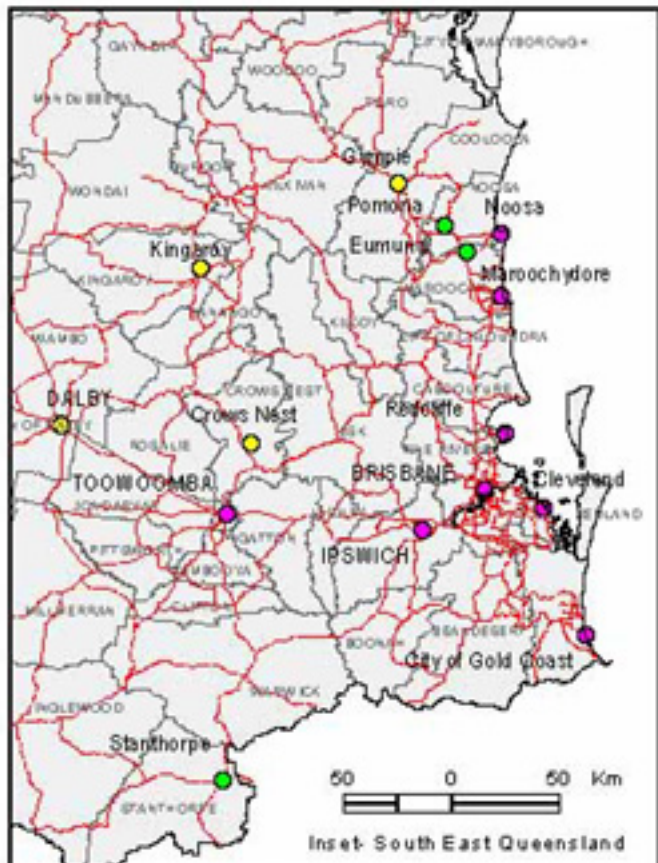
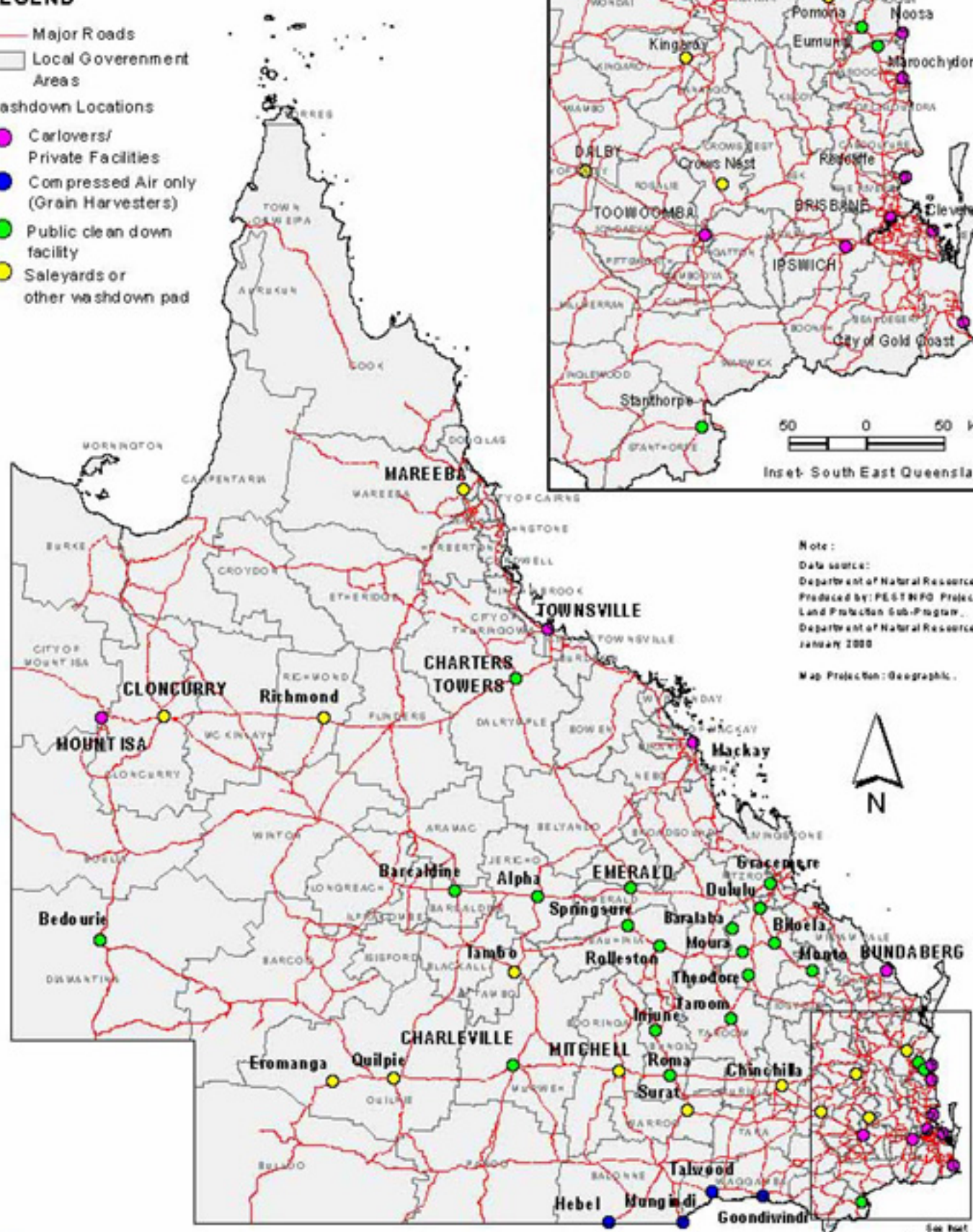
Major Washdown Facilities in Queensland

LEGEND

-  Major Roads
-  Local Government Areas

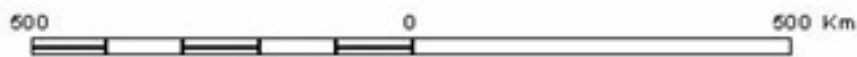
Washdown Locations

-  Carloaders/ Private Facilities
-  Compressed Air only (Grain Harvesters)
-  Public clean down facility
-  Saleyards or other washdown pad



Note:
 Data source:
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Map Projection: Geographic.



See next
 for more detail