

Statement of Environmental Audit

This Statement provides a summary of the findings of an Environmental Audit of the Site referred to in the following specific portions

- Area 3 – Portion 2,
- Area 4 – Portion 1 to 9 (excluding Portion 3A), 11 and 12, Subportion 1 of portion 10 (scrub area)
- Area 5 – Portion 1, 3 and 5 to 8,
- Area 6 – Portion 1 to 3,
- Area 7 – Portion 1,
- Area 9 – Portion 1, 5 and 7,
- Area 10 – Portions 1, 2, 6 and 7.

of the Berrimah Farm and Darwin Prison Precinct Site (See survey plan in Attachment A)

located at **Stuart Highway, Berrimah**, Northern Territory in accordance with Section 47d of the *Waste Management and Pollution Control Act* (NT).

Name of Auditor	Dr Peter Nadebaum
Term of appointment of Auditor (under the Victorian Environment Protection Act 1970)	16 May 1990 to 25 September 2015
Date Audit requested	March 2009
Owners of the site	Northern Territory Government under the Administration of Department of Construction and Infrastructure.
Person requesting a Certificate	Graham Clarke of the Northern Territory Government Department of Construction and Infrastructure.
Municipality	Located on unincorporated land.
Title Information	Portion 001168 Hundred of Bagot Plan OP001274 and Portion 02173 Hundred of Bagot Plan S 81/185
Area of the Site	132.8 hectares
Zoning	Community Purpose and Future Development

The audit has had regard to, amongst other things:

- The Waste Management and Pollution Control Act (NT),
- The National Environment Protection (Assessment of Site Contamination) Measure (NEPM 1999),
- Water Act (NT),
- Advice provided by the Northern Territory Environment Heritage & Arts Division, Department of Natural Resources Environment & the Arts (EHA/DNRETA), and
- Guidance provided by the Victorian Environment Protection Authority.

Summary of findings

The Site is historically an undeveloped area that was utilized for farming and agricultural purposes. No remediation works have been carried out at the site.

The proposed use of the site is not well defined at this time and is likely to include a range of uses including residential, commercial, industrial, and open space. With respect to these uses, the audit has reached the following conclusions:

- The condition of the site is consistent with its proposed use. The results of soil sampling and analysis have noted minor exceedences of arsenic and vanadium investigation levels; however, the exceedences are localised and in the auditor's opinion are not representative of conditions that would adversely affect the use of the site.
- The quality of the groundwater is consistent with the background conditions expected for the area, noting the prior historical use of the area for farming purposes (including the use of the land for grazing of cattle and the application of fertilisers). While phosphorus, nitrogen and metals are present at low concentrations and some minor exceedences of acceptance criteria are observed, the quality of groundwater is not expected to preclude the use of groundwater assuming that treatment and application methods normally applied in such use are adopted.
- While asbestos has generally been identified and removed from across the site, minor pieces of bonded asbestos cement may remain on site. This poses a low risk to the users of the site and if found should be disposed of appropriately. An operational asbestos cement underground pipe remains, which should be removed after it ceases being used.
- No aesthetic impacts of soil were identified at the site. Minor ash was detected at some locations. However this is likely to be associated with periodic fires that occur that occur in this area and is not considered to be aesthetically objectionable.
- The potential for UXO to be present at the site has been the subject of investigation and it has been concluded that UXO are unlikely to be present, and pose a low risk. Work undertaken concludes that the site is no greater risk than the rest of Darwin. A UXO management plan has been prepared (Attachment B to this Statement) and any site works should be undertaken in accordance with the requirements of the plan.

Suitability of the Site

On the basis of the work undertaken, the auditor is of the opinion that the site is suitable for the intended purpose, that being a development with mixed use for residential, commercial, industrial, and open space;

Subject to the following conditions:

Site development works should be conducted in accordance with the UXO management plan attached to this Statement (or an appropriate updated version).

Other Related Information

Groundwater quality at the site is consistent with the background conditions in the area, which includes a low pH which is typically observed in tropical environments and nutrients typically observed in farming areas. Low pH waters can corrode buildings and structures, therefore design provisions for structures in tropical environments should apply. Where water is used for irrigation or drinking purposes, appropriate treatment and management practices should apply. The reader should refer to Section 7.5 of this report for further information.

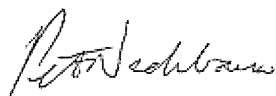
An assessment has been carried out to confirm the absence of UXO. This did not identify UXO, and it has been concluded that there is a very low potential for UXO to be present at the site. Should any UXO be encountered at the site, the item should be left alone and the appropriate authorities contacted.

An underground operational asbestos cement pipe remains on site and runs between the prison and the sewerage ponds. Anecdotal information provided by prison staff indicated that it runs north – south between the prison and the sewerage ponds. The pipe is reportedly up to 2 m deep and only sits above the ground in Area 10, Portion 5 which is outside of the current sign-off area. The pipe located within the current sign off area is expected to be in good condition and forms part of the built environment. It is recommended that it is removed when it is no longer operational.

Note that this audit considers only contamination of the soil and groundwater by potentially hazardous substances, and does not consider or advise on geotechnical conditions, suitability of soil and fill for planting from the perspective of nutrient content and physical form, and other aspects of the suitability of the land for development that are not related to hazardous substances.

The Disclaimers are outlined at the end of this report should be referred to.

DATED: 25 June 2013



SIGNED:

PETER NADEBAUM

Environmental Auditor (Appointed Pursuant to the Victorian Environmental Protection Act 1970) and recognised in the Northern Territory under section 68 of the *Waste Management and Pollution Control Act (NT)*.