

NOTICE TO CARRY OUT ENVIRONMENTAL AUDIT PROGRAM

(Issued pursuant to Section 48(1) of the *Waste Management and Pollution Control Act 1998*)

ISSUED TO: Ngurratjuta/Pmara Ntjarra Aboriginal Corporation
ABN 79 602 462 309
c/o Cameron Miller and Amy Driver

OF: 7 Leichhardt Terrace
ALICE SPRINGS, NT 0870

WHEREAS the Northern Territory Environment Protection Authority ("NT EPA") is satisfied for the reasons stated in **Attachment A** of this notice that you are a person required to carry out an Environmental Audit Program in relation to the property located at 8495 Namatjira Drive, Mount Zeil, Northern Territory (NT Portion 830), as delineated in **red** in **Attachment C** (the premises) to evaluate:

- (i) **the types, amount, distribution and mobility of contaminants and wastes present in the environment resulting from or in any way connected with fuel storage and fuel use activities at the premises, as defined in Attachment A;**

NOW TAKE NOTICE that you are required to comply with each of the requirements specified in **Attachment B** to this notice on and from the date of issue of this notice.

ISSUE DATE: 26 August 2021



AMY DENNISON
EXECUTIVE DIRECTOR
ENVIRONMENTAL REGULATION
DELEGATE OF THE NT EPA

Important Notice

Failure to comply with this notice is an offence under Section 52 of the *Waste Management and Pollution Control Act 1998* and may incur significant penalties and/or other statutory action.

This notice takes effect on the date on which it is served upon you. Pursuant to Section 108 of the *Waste Management and Pollution Control Act 1998*, **you have the right to apply for a review of the decision to issue you with this Notice to carry out an Environmental Audit. If you intend to apply for a review, YOU MUST MAKE AN APPLICATION NOT LATER THAN 28 DAYS after the day on which this Notice of the decision was given.** For information on how to lodge an application for review, contact the Northern Territory Environment Protection Authority, telephone 8924 4041.

Pursuant to Section 112 of the *Waste Management and Pollution Control Act 1998* the person issued with this notice must fulfil certain obligations before selling, leasing, sub-leasing, giving or exchanging land, premises, a vehicle or business which is the subject of this Notice.

ATTACHMENT A

REASONS FOR ISSUING THIS NOTICE

1. Ngurratjuta/Pmara Ntjarra Aboriginal Corporation (Ngurratjuta) was the owner of the land located at 8495 Namatjira Drive, Mount Zeil, Northern Territory (NT Portion 830), as delineated in **red** in **Attachment C** (the premises);
2. On 01 June 2021 the premises was sold to Beston Parks Land Co Pty Ltd (ACN 111 783 423), the final transfer of ownership and control of the premises is subject to Ngurratjuta completing remediation of any contamination at the premises;
3. Beston Parks Land Co Pty Ltd engaged Low Ecological Services P/L (LES) to conduct a due diligence assessment for the purchase of the premises;
4. The premises is situated within the West McDonnell National Park, approximately 50 metres north of the Finke River riparian zone and 450 metres north west of Glen Helen Gorge;
5. The West McDonnell National Park is considered to be an area of ecological and cultural significance;
6. On 04 June 2021, LES submitted a report to the NT EPA titled "*Glen Helen Lodge Investigation for fuel Leakage from UPSS*" (the report), dated 03 June 2021;
7. The report referred to in 6 above states:
 - (a) An underground petroleum storage system (UPSS) comprised of a 5,000L diesel tank, a 12,300 litres opal (unleaded) tank and a petroleum tank (of unidentified volume) was identified at the premises, as presented in **Attachment D**;
 - (b) The UPSS was excavated and disposed offsite by Territory Electrical and Refrigeration under LES supervision;
 - a. It is noted that the report is unclear whether the associated tank infrastructure (bowsers, fuel lines and vent pipes) were removed as part of the works, or if they remain *in situ*;
 - (c) A photo-ionisation detector (PID) was used throughout the works to screen for volatile compounds associated with potential hydrocarbon impacts;
 - (d) During excavation the diesel and opal tanks were noted to be in poor condition with visible signs of corrosion (rust and leakage points) identified;
 - (e) Material immediately surrounding the diesel and opal tanks was excavated during the UPSS removal and managed via:
 - a. Offsite disposal of approximately 10 m³ of the most highly contaminated soils (determined via elevated PID readings); and
 - b. Stockpiling of material on site for future management;
 - (f) Elevated PID readings (up to 1730 ppm) were reported at several locations within the diesel and opal tank pits, extending down to bedrock (approximately 3.7 metres below ground surface (bgs)) in some areas;
 - (g) Samples were collected from the diesel and opal tank pits and submitted for laboratory analysis;
 - (h) The samples referred to in (g) above reported:
 - a. Total recoverable hydrocarbons (TRH) C10-C16 (F2) between 9,580 mg/kg and 14,900 mg/kg, exceeding the *Assessment of Site Contamination National Environment protection Measure 1999 (ASC NEPM) TRH Management Limits*

- for Residential, Park land and Public Open Spaces (F2 C10-C16) criteria of 1000 mg/kg;
- b. TRH C16-C34 (F3) between 11,000 mg/kg and 13,100 mg/kg, exceeding the ASC NEPM TRH *Management limits for Residential, Park land and Public Open Spaces* (F3 C16-C34) criteria of 2,500 mg/kg;
 - c. Concentrations of Ethylbenzene between 3.3 mg/kg and 7.2 mg/kg, exceeding the ASC NEPM Ecological Screening Limits (ESL) for Areas of Ecological Significance criteria of 1.5 mg/kg;
 - d. Concentrations of total Xylenes between 13.4 mg/kg and 36.5 mg/kg, exceeding the ASC NEPM ESL for Areas of Ecological Significance criteria of 10 mg/kg; and
 - e. It is noted that the report is unclear whether the samples collected from the tank pits were for validation purposes, as detected TRH and BTEX concentrations are in excess of validation criteria suggesting that contamination impacts remain *in situ*;
- (i) The diesel and opal tank pits were left as open (roped off) excavations for future management;
 - (j) The material immediately surrounding the petroleum tank did not report elevated PID readings, as such, the tank pit was deemed 'validated' and the excavated material was used to immediately backfill the petroleum tank pit excavation;
 - a. It is noted that no validation samples were collected nor submitted for laboratory analysis to confirm the validation of the tank pit excavation;
 - (k) Eight boreholes were excavated via drill rig in the anticipated contaminant migration pathway (primarily to the east of the UPSS location), as depicted in [blue](#) in **Attachment D**;
 - (l) Samples were collected from the boreholes referred to in (j) above for laboratory analysis and did not identify hydrocarbon impacts;
 - a. It is noted that the sample locations have not adequately assessed the anticipated migration pathway for contaminants of concern given the topography of the area suggests that the potential pathway for migration would be to the south and south east, rather than to the east;
 - (m) Groundwater was not encountered during the investigation;
 - a. It is noted that no groundwater bores were installed during the investigation;
 - (n) The report concluded that there was "*no indication that contamination from either fuel tank has or will migrate into the surrounding environment*" as a layer of rock was "*consistently struck and would prevent hydrocarbons from seeping to greater depths*";
 - (o) TRH and BTEX impacts have been identified within the diesel and opal tank pits (see results in (h) above) this constitutes contamination;
 - (p) Similarly, given the investigation did not adequately target the inferred migration pathway (south east towards the Finke River), the potential for contaminant migration remains unconfirmed;
 - (q) The report recommended a remedial strategy of "*natural source zone depletion*", involving the burial of excavated impacted materials within the diesel and opal tank pits with placement of 'clean fill' on top, whilst adding water and fertiliser to assist the biodegradation process;
8. Petroleum hydrocarbons are a wide group of chemicals that comprise oil and products refined from oil such as diesel, opal and petroleum fuels;

9. Hydrocarbons and hydrocarbon contaminated soils are defined as a contaminant and as a waste pursuant to section 4 of the *Waste Management and Pollution Control Act 1998* (WMPC Act);
10. It is noted that burial of wastes is an offence under the WMPC Act and as such is not considered an appropriate remedial strategy;
11. Hydrocarbons have the potential to kill or inhibit microbial species and reduce water/nutrient uptake by plants which can result in toxicity to some plant species and impaired ecosystem functioning¹;
12. Human health may also be impacted as a result of hydrocarbon contamination whereby impacts migrate into surface/groundwater used for consumption²;
13. Hydrocarbon and BTEX impacts have been identified as remaining in soils which has the potential to migrate and impact nearby sensitive receptors including the Finke River and Glen Helen Gorge; and
14. An assessment is required in order to evaluate the types, amount, distribution and mobility of contaminants and wastes present in the environment in order to suggest appropriate remediation methods (if necessary).

¹ Truskewycz A, Gundry TD, Khudur LS, et al. *Petroleum Hydrocarbon Contamination in Terrestrial Ecosystems-Fate and Microbial Responses* in *Molecules*. (2019), accessed via: [Petroleum Hydrocarbon Contamination in Terrestrial Ecosystems—Fate and Microbial Responses \(nih.gov\)](#)

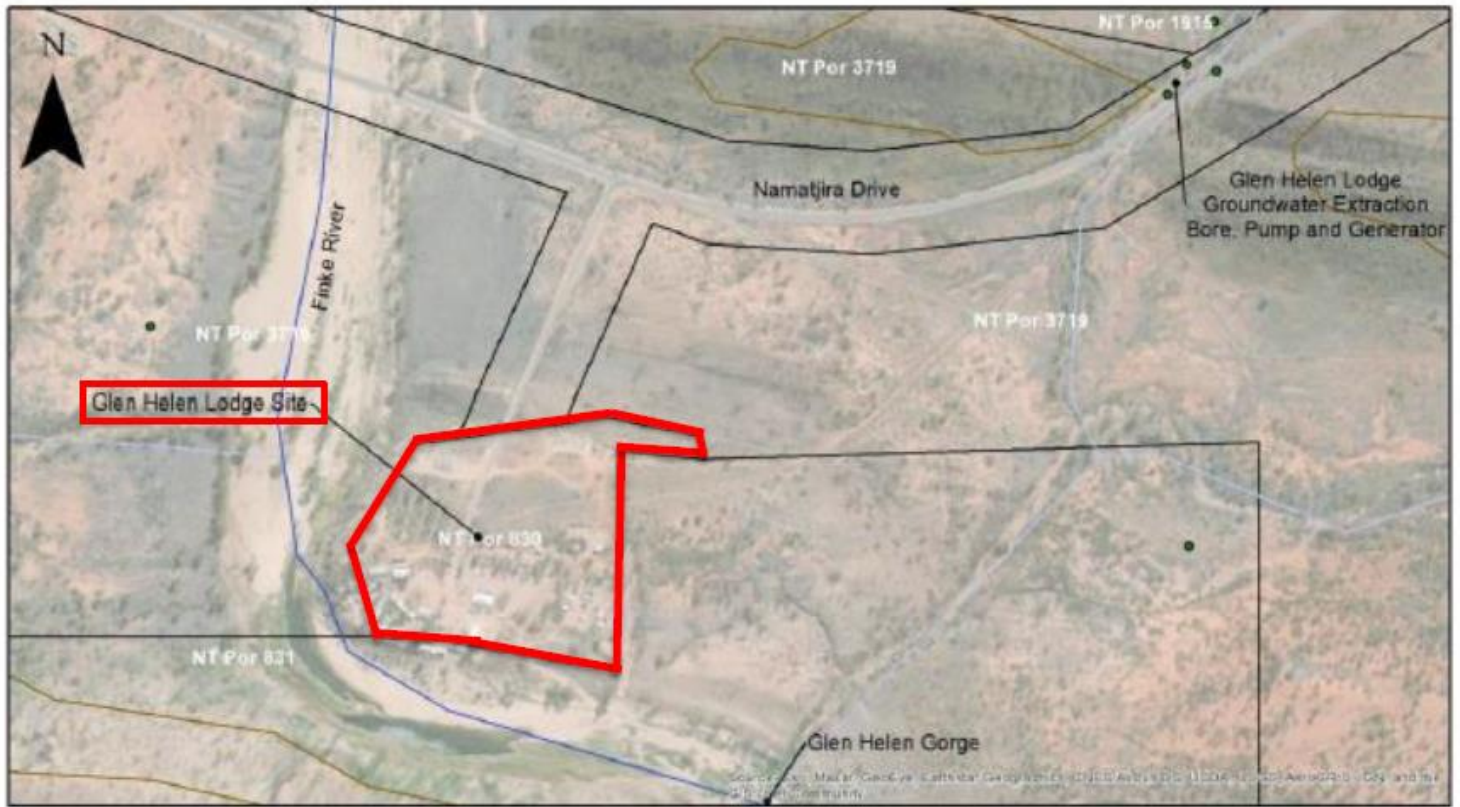
² Kuppusamy S., Maddela N.R., Megharaj M., Venkateswarlu K. (2020) *Impact of Total Petroleum Hydrocarbons on Human Health* in *Total Petroleum Hydrocarbons* pp 139-165, Springer, Cham. Accessed via [Petroleum Hydrocarbon Contamination in Terrestrial Ecosystems—Fate and Microbial Responses \(nih.gov\)](#).

ATTACHMENT B

NOTICE REQUIREMENTS

1. The environmental audit program (the program) must be performed by a person registered under section 68 of the *Waste Management and Pollution Control Act 1998*, in this case an environmental auditor specifically accredited under the New South Wales or Victorian auditor accreditation schemes;
2. Within one month from the date of issue of this notice you must engage the environmental auditor referred to in requirement 1 above;
3. Within two months from the date of issue of this notice you must submit a scope of works for the program to the NT EPA for review;
4. Within six months from the date of issue of this notice you must submit an **Environmental Audit Report** prepared by the person referred to in requirement 1 above;
5. The **Environmental Audit Report** referred to in requirement 4 above must relate to the risk of any possible harm or detriment to the land, surface water and groundwater environments caused by activities conducted at the premises, as determined by:
 - (a) collection and/or modelling of any data as the auditor sees fit; and
 - (b) review of any data, records, reports, monitoring programs or other information relevant to the scope of the audit;
6. The **Environmental Audit Report** referred to in requirement 4 must provide an independent expert opinion based on reports prepared by a reputable environmental consultant engaged by Ngurratjuta which:
 - (a) determines the types, amount, distribution and mobility of contaminants and wastes present in the environment resulting from the site activities, processes and operations at and beyond the boundary of the premises;
 - (b) determines the risk of any possible harm or detriment to the land, surface water and groundwater environments as a result of identified contamination;
 - (c) where a risk of any possible harm or detriment to a segment of the environment has been determined in 6(b) recommend any further assessment, risk analysis (human health and/or ecological) or remedial measures necessary to reduce the risk to an acceptable level; and
 - (d) includes an indicative implementation timetable for any recommended clean-up and/or management works referred to in requirement 6(c).

ATTACHMENT C
THE PREMISES - SITE LOCATION AND PROPERTY BOUNDARY (DELINEATED IN RED) AND ECOLOGICALLY SENSITIVE RECEPTORS (DELINEATED IN YELLOW)

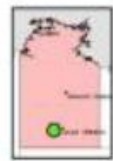



For more information contact:
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lowecol@lowecol.com.au

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0 25 50 100 Metres
 Map projection: Universal Transverse Mercator (UTM)
 Map Grid of Australia (MGA) Zone 52
 Horizontal Datum: GDA 1994, Vertical Datum: AHD (m)

- Legend**
- Bore (NTG NRMMaps)
 - Contours (50m)
- Watercourse**
- Major
 - Minor



Glen Helen Lodge
Environmental Due Dilligence - Location Map

**ATTACHMENT D
LOCATIONS OF UPSS AND APPROXIMATE DRILLED DELINEATION BOREHOLES**

