

**Borders  
Environmental  
Consultancy**

**Former forestry depot, Craik**

**Phase I Desk Study**

2109KW

date  
Client:

**Disclaimer**

*Kevin and Heather White commissioned BEC to undertake a Phase I desk study into potential land contamination at the former forestry depot, Craik.*

*The report has been prepared in this context and should not be used in any other context.*

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*draft*



**Purpose and aim of the study**

This report represents a Phase I investigation into the potential for land contamination to affect the proposed development of the former forestry depot, Craik, subject to planning application 19/01270/PPP<sup>1</sup>. The proposal is for residential development within the yard.

client	Kevin & Heather White
context	Condition a of planning reference 19/00278/PPP
purpose	Phase I Desk Study
Current use	Former Depot/ yard
Proposed use	Residential

**Site location and layout plans**

Location description	Craik Depot, Craik TD9 7PS
Grid reference	NT 34884 08075
Shape	Triangular
Dimensions	Approximately 80m x 50m (longest x widest extents)
Area	0.86 Acre
topography	Gentle declining slope to north, raised platform along northern site boundary (Figure 2 Appendix IV)

An approved annotated site plan and topographical survey are provided in Appendix IV.

**Site history**

Available historic maps<sup>3</sup> (Appendix V) provide a timeline of development on site.

Both OS 6 inch and 25 inch map series from 1860 to 1923 show the site as an undeveloped part of Craik farm.

The OS 1-10,000 map from 1964 shows the significant development of the area for forestry and the construction of 6 semidetached forestry cottages (1948 - personal communication) within close proximity to the site. The site area is shown as part of an access route into the forest and there appears to be three open bays/ pens within the site along the roadway.

At this time the forestry yard was within Craik farm. It was moved to the site location before 1969. Initially the L shaped workshop/ rest room building was constructed, with the raised

platform, petrol tank installation, toilets and deer larder added later. (personal communication Billy and June Wilson)

Current satellite imagery<sup>5</sup> show extant depot buildings on site including the former deer larder and public toilets. This configuration of buildings has been on site since the 1990s (personal regulatory knowledge of the site through food hygiene, licensing, and public health interventions).

### **Site setting**

#### **Walkover**

A site walkover was undertaken on the 8 October 2021. The walkover was undertaken in the afternoon, the weather was damp and overcast. Documents and photographs are provided in Appendix IV. The subject site is accessed from a track to the south. The track runs through the site along its western boundary. There are three extant buildings within the central yard area of the site comprising the former toilet block, deer larder and workshop.

The workshop is an L shaped building and is only partly roofed. It comprises two distinct areas; a tool shed and a store. The former vehicle maintenance area is currently in use as a tool shed/ workshop. This area is roofed and has a vehicle inspection pit. The partially roofed former tool store/ rest room is currently used for storing building materials.

The northern part of the site has been raised and forms a platform on which there is a stored caravan and dog kennels.

The southern part of the site is overgrown with shrubs and trees. Between this wooded area and the former toilet block a container has been sited. It is understood this is used as a store.

There are a number of vehicles and caravans parked in the central area of the site which is also used to store building materials. Two septic tanks were identified, one in the north west corner of the site (formerly servicing the toilet block) and another to the east of the deer larder.

There was no evidence of the location of former fuel tanks, ground staining or materials which could contain asbestos.

**Geology**

British Geological Survey<sup>2</sup> describe the site superficial soils as Quaternary alluvium, underlain by Carghidown beds of the Hawick Group (Greywackes) formed in the Silurian period.

**Hydrogeology/ Hydrology**

There are no available borehole data within the vicinity of the site. The nearest recorded borehole to 31m bgl is at Craik Farm. It is likely to be a PWS borehole.

The Aithouse Burn runs in a south easterly direction along the north eastern boundary of the site (approximately 30m from extant site buildings). The Northhope Burn (Borthwick Water) runs in an easterly direction to the south of the site (approximately 34m from extant site buildings).

Fig 3 Water body classification<sup>4</sup>

Water body	Surface Water	Ground Water
Name	Northhope Burn	Peebles, Galashiels and Hawick
ID	5255	150697
Overall status	Good	Good

**Relevant consultations**

An environmental Information request (EIR) was made to SBC on 24/09/2021 and is provided in Appendix III.

The EIR notes that recent OS map extracts indicate the site was a depot, and that Information included with former planning applications state the site was occupied by *“vacant buildings on the site of blockwork and timber used by the Forestry Commission Scotland as workshops, storage, a deer larder and public conveniences and a public car park”*.

The EIR also notes that a petroleum license for a 500gal petrol tank was held by the Forestry Commission at Craik. This tank was decommissioned in 1992 (steam cleaned and infilled). Its precise location was unknown.

An update was received from the Council indicating archived petrol licensing records had been reviewed. It highlighted that the Forestry commission held licenses for two petrol tanks (300gal and 500gal) which had both been steam cleaned and infilled in 1992. The locations of either tank could not be confirmed.

SEPA information on landfill was reviewed<sup>6</sup> and no licensed sites were identified within a 250m radius. There was no indication, during site visit, from local authority EIR response, or from viewing the current satellite images, of any sites/activities within vicinity of the subject site likely to be regulated by SEPA under their various pollution control regimes which would warrant further direct consultation.

Forest and Land Scotland was consulted as their antecedent authority the Forestry Commission had operated the depot. They were unable to provide any plans or documents regarding the site and advised due to staffing turnover since the yard ceased to be operational there was no one currently in their employ who had knowledge of the site.

The community at Craik however has a long association with the forestry activities, and some of the residents are retired forestry employees.

Two residents (Billy and June Wilson) worked for the Forestry Commission at Craik from the 1960's and 1970's respectively and were familiar with the yard. Billy Wilson used the workshop and yard extensively.

They provided the following history during an interview on 8 October 2021.

Initially along the path (the length of the north westerly boundary of the site) which aligns with the 'right of way' to Meadshaw, adjacent to Craik forestry cottages (no.6) there were three hen runs for the residents. These were accessed by fording the Aithouse burn. A concrete foot bridge was installed which was replaced by a road bridge in the late 1960's. Up until then vehicular forestry access had been through Craik farm and the Forestry offices/ workshops had been sited "at the back of the farm" more than 250m to the NNW of the site.

With the new forestry access route across the Aithouse burn the site was developed as a more convenient yard, initially with construction of the L shaped workshop/ garage building and thereafter the toilets (originally for forestry workers) and deer larder. This development included a petrol tank located to the south west of the toilet block (approximately at the location of the current storage container) The tank had an electric pump in a lockable wooden housing.

There was no recollection of a further petrol tank on site, although at the original Forestry Commission workshops on Craik farm a hand pumped petrol tank was used by forestry staff. This would have been the original petrol tank the Forestry Commission held a license for.

As forestry operations changed during the 1980's and 1990's the Forestry Office was moved to Hawick (1984) and then to Selkirk (1997). In the late 1980's the need for site fuel storage changed and the petrol tank was no longer needed. Once steam cleaned the tank was filled with concrete.

The platform to the north of the site was constructed using graded rock quarried within the forest. It was used to store diesel fuel delivered in drums. The drums were rolled from the platform onto trailers which were taken to fuel tractors in the forest, during forestry operations.

The L shaped workshop building had a number of functions. The northern part was a vehicle garage servicing area with inspection pit. The other part of the workshop comprised a number of rooms. A lockable room where the chainsaws were stored. A drying room for wet clothing (the only heated part of a building on site) with an electric space heater. It also contained a staff rest room with a long work bench for sharpening chain saws.

The deer larder had a wet room for washing carcasses, a cold room for hanging them and also housing a freezer.

There was no burning or waste oil storage on site.

During the 1990's and 2000's the site was used to support recreational use of the forest, with the toilets available for visitors. During this time walking paths and cycle routes were developed and maintained, and recreational use of the forest encouraged.

### **Development of Conceptual Site Model (CSM)**

The conceptual site model is the way of describing the key components of the potential pollutant linkages which would enable site contaminants to impact receptors associated with the site. It enables visualisation of the potential pathways which link receptors to contamination and therefore informs the strategy for further site investigation should this be necessary.

## Sources of contamination

Potential for contamination on site would likely arise from its historical use as forestry yard and depot; activities such as maintenance of machinery, vehicle repair and fuelling, and storage of fuel.

The DOE Industry Profile Road vehicle fuelling, service and repair: transport and haulage centres was the most relevant publication for the use of the yard, workshop and vehicle refuelling undertaken at the depot. It highlights a range of activities which may be contaminative, and details the contaminants associated with them.

The principal contaminants are the workshop and associated yard would be petroleum fuel hydrocarbons and metals.

For the refuelling area at the petrol tank, the principal contaminants would be petroleum fuel hydrocarbons. In addition, during the 1970's and 1980's lead was used as an anti-knock agent in petrol. Soil contamination from the storage of petrol and vehicle refuelling during this period could include lead.

Since decommissioning of the forestry depot, the use of the yard has continued to some extent to be used for parking of vehicles, although recent use of the yard has also involved works to refurbish of some of the buildings (e.g., removal and partial replacement of the workshop roof). There is no indication on site of the previous roof construction although it would be prudent to include analysis for asbestos in any soil samples from around buildings in the yard area should any future site investigation within this area be required.

## Receptors

At this stage the whole site is being considered within the proposal for change of use. In this case future residents would be the key human health receptor (0-6 year old child is most vulnerable receptor).

The closest water environment receptors are groundwater and the nearby burns (with respective assessment points for ground water associated with site as receptor, and pathway to surface water receptors<sup>7</sup>).

Property (buildings) may also require to be considered as a receptor should soil contamination be found with potential to affect property structure and safety.

Non-building property receptors potentially affected by soils in domestic gardens, created through the proposed redevelopment, include home grown crops and animals (domestic



livestock and pets). Where phytotoxicity can be used as a surrogate (e.g. risk to plants from phytotoxic metals) appropriate soil standards will be utilised. However, there are many variables within soil composition and productivity that can affect yield of domestic crops, and many different behavioural scenarios for a range of potential domestic animals which could affect exposure. Whilst these receptors are defined in the statutory guidance there are as yet no authoritatively endorsed methodologies for adequately establishing levels of acceptable risk or defensible standards which could be applied to assess specified harm to these receptors.

Table 4 Statutory receptors<sup>8</sup>

<b>Statutory receptor</b>	<b>Location within/adjacent to site</b>	<b>To be considered within CSM</b>
Human Health	Yes – residential development	Yes
Designated Ecological System	No <sup>9</sup>	No
Property (crops, livestock, other and wild animals)	Yes – residential garden to be created	Yes
Property (buildings)	Yes – residential building to be created	Yes
Water Environment	Yes - ground water associated with site as receptor and pathway to surface water receptors	Yes

**Pathways**

Site soil contaminants could impact on residents through dermal contact, ingestion and dust inhalation.

There is the potential, should petroleum hydrocarbon contamination be found to persist in soils associated with fuel storage and vehicle refuelling, for a gas/ vapour inhalation pathway to residents to exist.

Hydrocarbon contamination of soils may present a risk to property receptors from gas/ vapours and through direct contact.

Percolation of dissolved contaminants in rainwater could impact on groundwater quality and be transported in ground water to surface waters.

**Discussion**

A combination of historic map information, the Council EIR, local knowledge and operational knowledge of the site has enabled a detailed summary of site history to be constructed.

Prior to the late 1940's the site was an undeveloped part of Craik farm. From the late 1940's throughout the 1950's and 60's the site land use changed, initially to provide livestock holding for the forestry workers housed in the new forestry cottages. Then as forestry operations developed a depot was established. This included a yard, workshops, staff facilities, fuel storage and refuelling area.

The location of petrol and diesel storage on site has been confirmed through local operational knowledge. Of the two tanks licensed to the Forestry Commission it is likely only one was on site. The second was associated with the earlier location of the depot at Craik farm.

As forestry operations changed again through the 1980's and 1990's the yard and workshop became obsolete and were decommissioned. The toilet block and deer larder usage continued for a number of years, the former providing facilities for the visitors and cyclists encouraged to use the forest recreationally. The last 15 years has seen a decline in use of the cycle routes within the forest and the site including the buildings were sold for redevelopment.

At present without detailed development plans the whole site is being considered within the change of use to residential land. It is understood that the intention is to retain the L shaped building as a workshop separate from the residential development, although the extent of yard area associated with its continued use has not been delineated.

Similarly, the area to be redeveloped for residential house and garden has not been delineated.

Should development plan details be forthcoming this desk study could be amended to reflect these proposals.

### **Gaps and Uncertainties**

Activities linked to forestry depot operation from the late 1960's to the early 1990's may have allowed soils in the trafficked and central yard area of the site to become contaminated; fuel hydrocarbons, metals and asbestos (potentially from building refurbishment). The nature and extent of contamination is unknown.

Soil contamination with fuel hydrocarbons and lead in the refuelling area around the petrol tank, and potentially accumulating at depth around the tank, are unknown.

The raised area to the north is anthropogenic and was used to store diesel barrels. Fuel contamination of this area is also a possibility.

Impact to human health, property and water environment receptors is unknown.

Detailed development plans are unknown.

### **Conclusions**

The uncertainties across the site area affected by redevelopment would be addressed through a Phase II site investigation (to BS10175 +A2:2017) and risk assessment.

Site Investigation could be undertaken utilising both targeted and non-targeted investigations.

The planning consent however is not accompanied with a detailed development plan. It is understood that some areas within the site are not intended to be part of the residential development.

A detailed Phase II site investigation strategy is therefore not appropriate at this stage. Once clarity on the development plan is provided within a further Approval of Matters specified in Conditions (AMC) application, the desk study can be amended and investigation proposals drawn up.

draft

**Appendix I****References**

<sup>1</sup><https://eplanning.scotborders.gov.uk/online-applications/>

<sup>2</sup> <https://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html?src=topNav>

<sup>3</sup> <http://maps.nls.uk/geo/explore/#zoom=18&lat=55.5508&lon=-2.8476&layers=115&b=1>

<sup>4</sup><https://www.sepa.org.uk/data-visualisation/water-classification-hub/>

<sup>5</sup><https://www.google.co.uk/maps/place/Craik+Forestry+Cottages,+Hawick+TD9+7PS/@55.363445,->

<sup>6</sup><https://www.sepa.org.uk/data-visualisation/scottish-communities-landfill-fund/>

<sup>7</sup>[https://www.sepa.org.uk/media/152662/wat\\_ps\\_10.pdf](https://www.sepa.org.uk/media/152662/wat_ps_10.pdf)

<sup>8</sup><https://www.gov.scot/publications/environmental-protection-act-1990-part-ii-a-contaminated-land-statutory-guidance/>

<sup>9</sup> <https://www.environment.gov.scot/data/data-analysis/protected-nature-sites/>

## Appendix II Walkover documents and photographs

Existing use/ condition checklist. Walkover date 08/10/21

	On site		Adjacent	
	Y	N	Y	N
Industry/ manufacturing		N		N
Waste disposal/ processing/ landfill		N		N
Surface or underground mineral working		N		N
Vehicle maintenance/ fuelling	Y			N
Watercourse/ ditch		N	Y	
Business activity		N	Y Forestry	

Walkover site property checklist. Walkover date; 08/10/21

Part of property	Present		Inspected		Suspected asbestos	Waste /fly tiping	Petrol /fuel tanks	Other tanks or containers	Discoloured water / smelly liquids	Oil staining	Irregular topography	Vegetation dieback	Electrical or communications structures
	Y	N	Y	N									
<b>Buildings</b>	Y	N	Y	N									
Occ				N									
Vac			Y										
Delap			Y										
<b>Basement / Subter feature</b>			N										
<b>Outbuildings</b>	Y			N	N	N	N	N	N	N			N
<b>Hard standing</b>	Y		Y			N	N	N	N	N	Y	N	N
<b>Agricultural</b>	N												
<b>Derelict or rough grnd</b>	Y		Y			N	N	N	N	N	N	N	N
<b>Landscaping/ woodland</b>	Y		Y			N	Y	Y	N	N	N	N	N
<b>Water course/ adjacent</b>	Y		Y			N	N	N	N	N	N	N	N
<b>Surrounding area</b>					N	N	N	N	N	N	N	N	N
<b>Extent of inspection of immediate vicinity</b>	Walk round site boundaries along approach road, across burn and past residential area												

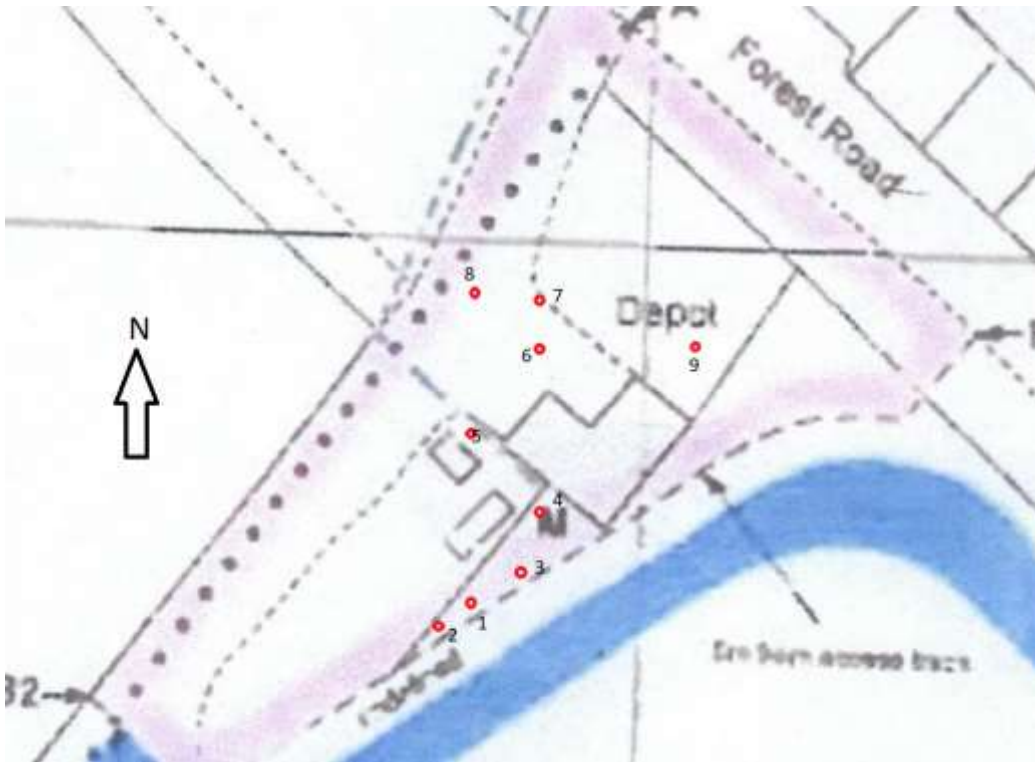


Figure 1 Photograph location points



Figure 2 photo 1 view to north showing deer larder and container (green)



Figure 3 photo 2 view to north west showing container



Figure 4 photo 3 view to north showing deer larder in foreground



Figure 5 photo 4 view to east deer larder and toilet block



Figure 6 photo 5 view to the east of partially roofed L shaped building (door to staff rest room, stores etc)





Figure 7 photo 6 view to east of northern extension of L shaped building (garage)



Figure 8 photo 7 view to north of raised area



Figure 9 photo 8 view to south toilet block and container (green)



Figure 10 photo 9 view to south showing garage (L shaped building)

**Appendix III Consultations**

Stewart, Gareth <Gareth.Stewart@scotborders.gov.uk>  
Wed 29/09/2021 11:33

Anthony,

I refer to your information request relating to planning application 19/00278/PPP. Please find a response below.

- **Would you be able to provide me with any information the Council holds regarding the history of this site.**

Limited information is held on the history of the site. Recent OS map extracts indicate the site operated as a depot. Information included with former planning applications state the site was occupied by “*vacant buildings on the site of blockwork and timber used by the Forestry Commission Scotland as workshops, storage, a deer larder and public conveniences and a public car park*”. Photographic records associated with the planning application shows various buildings of unknown use, vehicle storage, and various on-site material storage.

The site is understood to now be vacant. The uses of the site during its operational period are not known. Relevant investigations including, where possible, consultation with land owners/ former owners or operators should be undertaken to further inform this aspect of the assessment.

- **Would you also provide any information the Council holds on adjacent/ neighbouring land uses;**



- **industrial/ commercial activity,**

No immediately adjacent uses known.

- **waste management and disposal,**

No known landfills

- **mine working**

None known

- **vehicle maintenance**

None known however photographic records show dilapidated vehicles on site

- **fuel storage**

2 former petroleum licenses held for the local area

- Forestry Commission, Craik Forest, Robertson, 500g Tank, Steam-cleaned and infilled, 1992 (it is not known if this relates to the subject site or the Forestry Office to the north)
- Manning/ W G White, Craik Farm, Robertson, No Tank Info, Filled With Diesel, 1996

NB/ other forms of fuel storage (e.g. diesel or heating oil) would not necessarily be recorded and should be considered as part of wider site researches.

- **Could you advise whether any adjacent land redevelopments have been subject to land assessment and provide details of where this information can be viewed.**

None known

- **I would also be obliged if you could advise whether nearby properties have private water supplies and if so the nature of the source of these supplies.**

Please see Environmental Health consultations and associated comments on planning portal regarding the local water supply serving properties including the former public toilets. This is understood to be a spring supply located at E 334501, N 608991.

Nearest Supplies – NB locations ending ‘000’ indicate the precise location of the supply is not known but are suspected to be within that 1km square.

Name	Easting	Northing	Type
FIROAK	334000	608000	BH
CRAIK FARM	334002	608002	Spring
HOWPASLEY	334160	606920	Spring
CRAIK	334501	608991	Spring
HOWPASLEY SCHOOL HOUSE	335000	607000	Spring
EILRIG 1	337000	608000	Spring
EILRIG 2	337000	608000	BH

Please contact me should you wish to discuss further,

Kind Regards

Gareth Stewart  
 Contaminated Land Officer  
 Regulatory Services  
 Scottish Borders Council  
 01835 824000

Stewart, Gareth <Gareth.Stewart@scotborders.gov.uk>  
 Thu 07/10/2021 08:51

Anthony,

We have now had an opportunity to review our archived petroleum records. Unfortunately we were unable to locate a file for the Craik Forestry Commission site.

The record we do hold indicates a licence was held by the "Forestry Commission" at "Craik Forest, Roberton, Hawick" where 1 x 300g and 1 x 500g tank were licensed. The records indicate these were steam cleaned and infilled in 1992.

Please note my below response omitted the 300g tank.

Unfortunately no further information is held on these installations, the associated infrastructure, or their location. It would be of value to investigate this further as part of desk study researches.

Kind Regards

Gareth Stewart  
Contaminated Land Officer  
Regulatory Services  
Scottish Borders Council  
01835 824000

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**Appendix IV Plans**

**Figure 1 Approved annotated Site Plan**

See separate attached file

**Figure 2 Topographical Survey**

See separate attached file

**Appendix V Maps**

See separate attached file

**draft**