An additional 134 acres of swamp was drained on crown land. Initial stages of the swamp drainage was undertaken by engineer George Higgins. Higgins employed a von Schmidt suction dredge (Plate 1) to undertake the works that could pump around 50,000 gallons of water an hour (Reeves & Wixted, 2005). Once the swamp was drained, the dredge was used for reclamation work. The initial draining of the swamp led to the discovery of ironstone beneath the swamp's waters. A 1981 article notes:

> When the contractor tendered for the work three years ago he put bores down all over the swamp, and was satisfied that the work of reclamation could be accomplished inside of three years. Some little time ago, however, a discovery was made that completely upset the contractor’s calculations. Instead of only having to lift mud out of the swamp it was found that in several places the swamp was rich in the possession of a particularly obstinate from or ironstone (Geelong Advertiser, 1891).

Removing the ironstone took an additional seven months. This also shows that not only were the waters and underlying mud of the swamp removed by the dredge, but the underlying exposed natural swamp deposits as well. Following the completion of the removal of the swamp, the large void had to be infilled in preparation for construction. Newspapers articles state that the infill material came from Elwood foreshore:

> The contractor for filling up the Elwood Swamp recently carried out a series of borings on the fore shore of the Bay at Elwood, and ascertained that splendid sand and good clay, admirably suited for filling up, could be obtained here. With the aid of the von Schmidt machine and suitable pipes he [Higgins] will pump water charged with sand and clay on to the land to be filled up. The machine will place it on the land and spread it, and the water will be run back by means of ‘shoots’ into the Bay (Illustrated Australian News and Musical Times, 1889).

The swamp was reported as completely filled by 1905 (Eidelson, 2006).

**Plate 1** The von Schmidt Dredge *Elwood* (Illustrated Australian News and Musical Times, 1889)

An early map of the land within St Kilda shows that the area of the foreshore from the high water mark to the west of present day Spenser Street (within the locality of the study area) was reserved for plantation, possibly to counter effect the endemic tree felling noted within the area (Figure 5). This also shows the layout of the area prior to the reclamation of the foreshore area.
Figure 5  Town lands (of) St Kilda parish of South Melbourne (Department of Lands and Survey, 1869). Approximate location of study area in red.

In 1887, the Mayor of St Kilda asked the government for a military road on the foreshore from Point Ormond to Port Melbourne in order to enable the military to move artillery from battery to battery (Eidelson, 2006). This road would become present day Beaconsfield Parade and Marine Parade. This project sped up the reclamation of the marshlands within and around Elwood. Spoil from the bluff at Point Ormond was used as the filler material. Marine Parade was extended in 1904 with the construction material being obtained by cutting out 2.4 metres of the bluff (ibid).

The first sales of residential land allotments within the former swampland occurred in January 1908. The land between marine Parade and Broadway was sold in 1914. The land upstream of Broadway was not sold until the 1920s (ibid).
By 1960 improvements to the canal and to the land around the canal were being made. Two new bridges were constructed off of marine parade that was made possible by reclaiming 45 acres of land from the sea. Twenty five acres of land was reserved for recreation purposes and the remaining 20 was reserved for the construction of a marina (ibid).

An excerpt from Anne Coleman’s *St Kilda: The Show Goes On* describes the construction of the St Kilda Marina:

Another substantial portion of the foreshore was alienated from the public and leased to private interests when the Marina was constructed. The City Engineer, Maurice Moran, convinced Councillors that land reclaimed from the sea opposite Marine Parade should be leased to a private enterprise to develop wet and dry pens to store boats, rather than for the establishment of a recreation area and plantations as originally proposed in the 1950s.

The concept of a Marina was American and the St Kilda version was modelled on the floating dock system at Long Beach, California. The St Kilda Land Act (1965) authorised the venture, and the State Government finally approved the tender of the only applicant to develop the twenty acre site in 1968, granting a lease until 2019. The first stage was opened in 1969 and provided the only facilities of its type in Australia: concrete sea walls surrounded wet pens for about two hundred boats, and dry storage was provided in triple tiered racks for another two hundred smaller craft which were retrieved by fork lift. A recreation area was developed by Council on the remaining twenty five acres of the original forty five which had been reclaimed (Longmire, 1969).

In 1961 the project was first proposed by City Engineer M.O. Moran, following his overseas study tour (Southern Cross, 1968). Stage 1 of the marina construction project began in 1966 and consisted of the land reclamation and creation of the boat harbor with three ramps and roadways (Built Heritage Pty Ltd, 2017) (Plate 2-Plate 3).
Plate 2  Beginnings of land reclamation for the St Kilda Marina (client provided, no date)
In 1967, St Kilda Council called for tenders for Stage 2 of the Marina construction project that would include the formalised development of the boar harbor as a marina with associated facilities (Built Heritage Pty Ltd, 2017).

1968 the Mayor of St Kilda, Mr. H. Hall-Kennedy announced the detailed plans for the proposed $2 million marina (The Canberra Times, 1968). The winning tender was from Australian Marinas (Australasia) Pty Ltd. Arch Spooner, who established Australian marinas (Australasia) Pty Ltd, visited marinas in California from which the St Kilda Marina is purported to be based on. An article for the proposed Stage 2 works stated that the marina would have moorings, dry boat storage and related facilities, but would also contain a museum, seaquarium, 50-room motel, restaurant, convention centre...gymnasium, sauna, squash courts, heliport, service station, kiosk, workshop and bulk store (Age, 1968). The project was to be divided into three phases: Phase 1 would consist of the construction of the service station, administrative offices, workshop, wet and dry pens, observation facilities, safety patrol, fuelling point and a pilot beacon. This phase of works was largely completed by April 1969. Phase 2 was to consist of a boat display, marine centre and sports centre. The sports centre was omitted from the final scheme of works. In August 1969, most of the key elements of the second phase of works were completed, including: the floating berths, dry storage building, marine service centre and amenities block (Built Heritage Pty Ltd, 2017).
The new marina was reported as almost fully finished in 1970. At this time the marina architects were praised for its two-storey boat-house that provides undercover storage for 200 boats... 200 pens that can take craft up to 59 feet long... The article also refers to the pilot beacon, located on the northern extent of the marina, cited as being an Australian, and possibly world, first, made entirely out of fibreglass (Weekender, 1970).

### 2.3 Aerial Imagery

Aerial imagery from 1946 shows that the coast begins immediately west of Marine Parade (Figure 6- Figure 7). This is prior to the reclamation of land in the 1960s. Aerial images from 1961 show that reclamation works had yet to begin within the area of the present day St Kilda Marina (Figure 8). More recent aerial images show that the marina is little changed since the initial reclamation and construction (Figure 9-Figure 11).
Figure 6 1945 aerial image of the study area (Department of Lands and Survey, 1945). Approximate location of study area in red.
Figure 7  1945 aerial image of the study area (Department of Lands and Survey, 1945). Approximate location of study area in red.
Figure 8  1961 aerial image of the study area (Department of Lands and Survey, 1961). Approximate location of study area in red.
Figure 9  2001 aerial image of study area (GeoVic3, 2015)
Figure 10  2009 aerial image of study area (GeoVic3, 2015)
2.4 Evidence from previous assessments

Several previous archaeological assessments have been undertaken within the area of reclaimed foreshore land and will be discussed further below in order to ascertain the archaeological sensitivity and potential of the proposed study area.

A CHMP (12220) was undertaken by Vaskos and Donati (2012) prior to proposed works at Marina Reserve, located abutting the present study area to the northeast. The desktop assessment concluded that there are a
small number of previous archaeological investigations that have been undertaken within the immediate area. Land along the St Kilda foreshore has been extensively modified by land clearance, beach re-nourishment and erosion, as well as the construction of breakwaters, sea walls, piers and the channelling of estuaries. The construction of the Marina Reserve resulted in this area being reclaimed and was constructed through the introduction of rock, stone and introduced fill. Based on this, it was considered unlikely that Aboriginal cultural heritage material would be present within the study area. As such, no further investigation was required.

A CHMP (13455) was undertaken by Spry (2015) prior to the development of 6 Hood Street for a residential subdivision, located c. 120 metres to the east of the present study area. The proposed development site was located within the area formerly occupied by Elwood Swamp. The desktop assessment concluded that due to the draining and infilling of Elwood Swamp as well as reclamation works of the land, it is unlikely that Aboriginal cultural heritage material be identified within the activity area; however, it was thought possible that material may exist in less disturbed pockets within the activity area. Therefore, a standard assessment was undertaken. No Aboriginal cultural heritage material was identified during the standard assessment. The landform identified within the activity area, a level plain, was uniform across the site and considered to be of low to moderate archaeological sensitivity as it is located within 200 metres of the high water mark of Port Phillip Bay. The activity area was also assessed to contain a moderate to high level of prior disturbance associated with previous and current landuse practices of the property. During the complex assessment, a 1x1 metre test pit was excavated within the western aspect of the activity area to a depth of one metre as well as four additional shovel test pits to a depth of 1.1 metres. The excavations reflected the geomorphological information for the activity area. No Aboriginal cultural heritage material was identified during the subsurface investigations. A high degree of disturbance was also identified across the entire activity area associated with the past use of the activity area as residential properties.

A CHMP (13625) was undertaken by Mitchell and Hardiman (2017) prior to alterations and additions to the existing residential property at 77 Marine Parade, Elwood, located c. 225 metres to the south of the present study area. The activity area was located within coastal dunes adjacent to the coastline and areas of wetland. The desktop assessment concluded that the activity area has low potential to contain Aboriginal cultural heritage material due to the location of the site within reclaimed swamp land. However, as significant ground disturbance could not be conclusively shown, a complex assessment was undertaken. (A standard assessment was not undertaken due to the activity area being covered by landscaped gardens and structures; therefore, a survey of the area would not contribute any further information with respect to any Aboriginal cultural heritage that may be present within the activity area. During the complex assessment, two 1x1 metre test pits and 17 shovel test pits were excavated across the activity area. The complex assessment concluded that the activity area was subject to ground disturbance due to drainage works for the Swamp as well as the construction and occupation of the existing dwelling and underground services. No Aboriginal cultural heritage material was identified within the activity area and it was concluded that there was no potential for Aboriginal cultural heritage material to be present.

**Summary**

Several archaeological investigations undertaken within close proximity to the proposed study area show that land to the south of Mitford Street was located within areas of former swamps that have been impacted on during the 19th century drainage works of the swamp as well as land reclamation of the area. Therefore, there is little to no potential for Aboriginal cultural heritage material within these areas of land.
2.5 Dial Before You Dig

A Dial Before You Dig search was undertaken on 11 January 2018 in order to determine the presence of any underground services and utilities within the present study area. The following assets are located within the study area:

- **BP:** A BP service station is located in the southeastern aspect of the study area. Several items of BP infrastructure are located here (Figure 12).
- **City of Port Phillip:** Several stormwater drains are located within the study area (Figure 13-Figure 14) as well as along the adjacent Marine Parade (not shown).
- **MultiNet Gas:** Underground gas assets are located within the study area, mostly within the southern aspect of the site (Figure 15).
Figure 12  Location of BP assets within the study area
Figure 13  Location of City of Port Phillip stormwater drains in the southern aspect of the marina
Figure 14  Location of City of Port Phillip stormwater drains in the southern aspect of the marina
Figure 15  Location of Multinet Gas assets within the southern aspect of the study area
3. Historical heritage - investigation

3.1 Historical heritage – mandatory requirements

HO187: Beacon, Marine Parade, St Kilda is located at the northern tip of the St Kilda Marina and is a visually distinctive structure of significance; a scenic element contributing to the maritime character of the Foreshore area. Under the Port Phillip Planning Scheme any demolition, buildings or works within the HO167 will trigger the need for a planning permit.

3.2 Historical heritage – voluntary requirements

The Aboriginal heritage investigation section of this report (Section 4) documents the land use history and reclamation across the entire study area, such that the presence of any historical heritage material is highly unlikely. No voluntary historical heritage measures are warranted given this level of disturbance.
4. Aboriginal cultural heritage - investigation

4.1 Criteria

The following section examines in turn the three applicable criteria as to whether a CHMP needs to be undertaken at the study area. These are:

- Is the study area an area of cultural heritage sensitivity?
- Are the proposed works a high impact activity?
- Has there been significant ground disturbance to the study area?

4.2 Is the study area an area of cultural heritage sensitivity?

The following information and databases were reviewed on 9 January 2018:

- Victorian Aboriginal Heritage Register (ACHRIS, 2017)
- Aerial imagery
- Geological and geomorphological databases and mapping (GeoVic3, 2015)
- Victorian Register of Geographic Names (VICNAMES, 2015).

The study area is within an area of cultural heritage sensitivity under Regulation 27:

27 Coastal Crown Land

(1) Subject to subregulation (2), coastal Crown land is an area of cultural heritage sensitivity.

(2) If part of an area of coastal Crown land has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.

The study area is entirely within the area of cultural heritage sensitivity associated with coastal Crown land. This is illustrated in Figure 16 below.
4.3 Are the proposed works a high impact activity?

As City of Port Phillip are currently preparing for a new lease agreement, there are no proposed works to consider as yet. This section can be updated when more is known about future activities.

A list of high impact activities can be reviewed in the *Aboriginal Heritage Regulations 2007*. 

Figure 16  Study area (red) showing an area of cultural heritage sensitivity (green) (ACHRIS, 2017)
If the future works result in mechanical disturbance to the seabed, then there is a high likelihood that those works are considered high impact. This is because the vast majority of high impact activities under the *Aboriginal Heritage Regulations 2007* require any works to result in Significant Ground Disturbance. However in this instance, the vast majority of works are likely to occur only within the reclaimed land strata.

### 4.4 Has there been significant ground disturbance to the study area?

No, Yes, the study area has not undergone significant ground disturbance (SGD) to all of its surfaces. St Kilda Marina is an engineered landscape, in which all of the foreshore area was reclaimed during the 20th century, thus the original (being the sea bed), is present below the surface and has not been disturbed.

Clause (2) of Regulation 23 stipulates that an area of cultural heritage sensitivity where SGD has taken place is no longer an area of cultural heritage sensitivity and is therefore exempt from a mandatory CHMP. In the Regulations, SGD is defined as:

**Definitions**

In these Regulations—

*significant ground disturbance* means disturbance of—

- the topsoil or surface rock layer of the ground; or
- a waterway—
  by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping.

It is important to note that under this regulation, SGD is not chiefly defined by the extent or depth of any disturbance, but rather by the mechanical means through which it has been caused. The application of the significant ground disturbance exception is also unaffected by the relative likelihood of archaeological remains being preserved in the study area. Such likelihood of preservation may affect the advisability of a voluntary CHMP, but does not bear on the criteria for a mandatory CHMP.

The study area cannot be shown to have undergone SGD through mechanical excavation, during the reclamation of land on which the St Kilda Marina was constructed.
5. Aboriginal cultural heritage – conclusions

The proposed activity is not yet known, and may or may not be a high impact activity. The study area is within an area of cultural heritage sensitivity. The study area cannot be shown to a level of high certainty to have been subject to significant ground disturbance (SGD). The seabed in this instance is considered to be the natural ground surface, and has been subject to reclamation.
6. Aboriginal cultural heritage - mandatory requirements

Requirement for mandatory CHMP

At present there is no requirement that a mandatory CHMP. The requirement for a CHMP will be dependent upon construction methodology, and whether it penetrates the seabed beneath the reclaimed land. If the activity is a listed high impact activity and will affect a seabed, then a mandatory CHMP will be required before council issuing statutory approval for any proposed buildings and works.
7. Aboriginal cultural heritage – risk assessment & recommendations

7.1 Risk assessment and options for voluntary heritage management measures

The study area has not been shown to be exempt from the requirements for a mandatory CHMP. However this will be determined finally once the proposed activity becomes clear. There are also risks of infringing the Aboriginal Heritage Act 2006, associated with any ground disturbing activity, even where a CHMP has been undertaken and more so where a CHMP has not been undertaken.

Under sections 27 and 28 of the Act it is deemed illegal to knowingly or negligently harm, or to commit an act likely to harm Aboriginal cultural heritage. This section briefly assesses the likelihood of such harm occurring at the study area in the course of proposed works.

There are three primary points to be considered in assessing such risk:

- Is it likely that there remains in situ Aboriginal cultural heritage material in the study area?
- Is it likely that any such material will be knowingly or negligently harmed during the proposed works?
- What measures can be taken to reduce any such potential harm?

7.2 Is it likely that there exists Aboriginal cultural heritage material in the study area?

No, it is unlikely that Aboriginal cultural heritage material exists in the study area within the reclaimed land strata. The St Kilda Marina was specifically developed in the late 1960s for the use as a marina. This was undertaken by reclaiming 45 acres of land from the sea. Prior to this, the area of land from present day Mitford Street to the coastline consisted of an area of swamps that was drained in the late 19th century as well as the coastline itself. The swamp and its underlying deposits were removed and infilled from sand and clay taken from the Elwood foreshore. This identifies a level of disturbance to the study area that indicates that there is a very low likelihood of Aboriginal cultural heritage material being present in the study area. However, during the late glacial maximum when sea levels were significantly lower, Aboriginal places were known to exist within Port Phillip Bay. Therefore disturbance to the seabed, although unlikely, could potentially cause harm to Aboriginal cultural heritage.

7.3 Is it likely that any such material will be knowingly or negligently harmed during the proposed works?

No, the study area has low potential for Aboriginal cultural heritage and the entire stratum of reclaimed land appears to be nonsensitive. It could not be considered that any harm to Aboriginal cultural heritage resulting from the proposed activity could be considered knowing or negligent.

7.4 What measures can be taken to reduce any such potential harm?

The client may exercise measures to further reduce the risk of causing harm to potential Aboriginal cultural heritage material within the study area. These potentially include the undertaking of a voluntary CHMP which
would serve to better define the presence or absence of Aboriginal cultural heritage material within the study area and would provide formally recognised heritage management recommendations for the study area. This would avoid the risk of substantial interruption to works which would be entailed in the initiation of a mandatory CHMP, were Aboriginal cultural heritage material identified within the study area in the course of works.

Given the low level of potential for Aboriginal cultural heritage within the study area, there would be little benefit to the client in undertaking a voluntary CHMP.

The following section sets out a series of management measures and recommendations developed in accordance with the requirements of the *Aboriginal Heritage Act 2006* and *Aboriginal Heritage Regulations 2007*. The recommendations reflect the results of the risk assessment provided in Section 6, and include the recommendations of the mandatory compliance investigation (Section 6).

If ground disturbing works take place within the seabed, Council should consider undertaking a CHMP to a desktop level.
8. Recommendations

Recommendation 1. Requirement for a mandatory CHMP
There is no requirement that a mandatory CHMP need be undertaken before council issues statutory approval for the proposed buildings and works, unless works penetrate the seabed. If this is the case, a CHMP to Desktop Assessment level would be appropriate.

Recommendation 2. Requirement for a voluntary CHMP
There is no recommendation that a voluntary CHMP be undertaken so long as works are restricted to the reclaimed land strata before council issues statutory approval for the proposed buildings and works.

Recommendation 3. Requirement for a Planning Permit
HO187: Beacon, Marine Parade, St Kilda is located at the northern tip of the St Kilda Marina and is a visually distinctive structure of significance; a scenic element contributing to the maritime character of the Foreshore area. Under the Port Phillip Planning Scheme any demolition, buildings or works within the HO167 will trigger the need for a planning permit.

Recommendation 4. Consultation with the Traditional Owners for the Area
Biosis recommends consultation with Traditional Owners regarding cultural significance of the area.

Disclaimer
This report provides expert opinion on the requirements for heritage management in the study area. It is authored by qualified heritage professionals with considerable experience working with heritage legislation, but who are not legal practitioners. The client is advised to seek qualified legal advice prior to acting on the recommendations contained in this report.
9. Bibliography


Azzure Investment Group vs Mornington Peninsula SC, 1600 (VCAT August 14, 2009).


Geelong Advertiser. (1891, June 4). The Von Schmidt Dredge. *Geelong Advertiser*, p. 3.


The Prahran Telegraph. (1918, January 5). In the Fifities: South Yarra and Toorak: From the Reminiscences of Frederick Revans Champman, St Kilda. The Prahran Telegraph, p. 2.


Appendix 1  VCAT precedent and evidentiary standards

The Office of Aboriginal Affairs Victoria has issued an advisory Practice Note regarding Significant Ground Disturbance (AAV 2009). This note is based on a number of recent VCAT ‘red dot decisions’ which have clarified the circumstances when a CHMP is required. In particular these VCAT decisions have established the modes of evidence and levels of investigation and proof required by a planning decision maker, to determine whether significant ground disturbance has occurred. It is of benefit to refer directly to the full text of these decisions rather than to the précis of them contained in the Practice Note (AAV 2009).

Mainstay Decision

The Mainstay Decision (Mainstay Australia Pty Vs Mornington Peninsula SC & Ors, 2009) specifically provides a hierarchy of acceptable modes of evidence, and the level of proof required to be adduced from them. An extract of the Mainstay Decision (2009) is provided below:

Many parts of the state are not areas of cultural heritage sensitivity, and many activities are exempt requiring a CHMP. Use should be made of the AAV on-line ‘Aboriginal heritage planning tool’ to determine if a CHMP is required;

It is the fact of significant ground disturbance that creates an exception under the Regulations, and determines if a CHMP is not required. The actual likelihood of Aboriginal heritage existing in the area is irrelevant to this determination;

The timing of the significant ground disturbance is irrelevant. It may have occurred many years ago in the early history of European settlement in the state;

If only part of the land has been subject to past significant ground disturbance, and the remaining part is still in an area of cultural heritage sensitivity, a CHMP will still be required for the whole development activity;

The burden of proving that the land has been the subject of significant ground disturbance rests with the applicant. The planning decision maker (and, on review, the Tribunal) must feel an actual persuasion of the existence of that fact to its reasonable satisfaction. This should not be derived or produced by inexact proofs or indirect inferences, and little weight should be given to a mere assertion by an applicant or landowner;

In assessing whether significant ground disturbance has occurred, there are four levels of inquiry that might commonly arise, and the assessment should be dealt with at the lowest applicable level. These levels are:

1. common knowledge,
2. publicly available records,
3. further information from the applicant, and
4. expert advice or opinion.

If the decision maker is not persuaded by the applicant that there has been significant ground disturbance, the ‘default’ position is that a CHMP is required. This accords with the purpose and intent of the Aboriginal Heritage Act 2006;

‘Significant ground disturbance’ is defined in the Regulations. The disturbance must have been caused by machinery in the course of grading, excavating, digging, dredging or deep ripping. Ploughing other than deep ripping is expressly excluded. ‘Deep ripping’ is also defined term that
requires the use of a ripper or subsoil cultivation tool to a depth of 60 cms or more. By reference
to these definitions, past ground disturbance caused by conventional ploughing (such as by a disc
plough or a rotary hoe) does not constitute significant ground disturbance. Both the depth of
ploughing and the type of machinery used are relevant to whether deep ripping (as defined) has
occurred.

The Mainstay Decision (2009) therefore establishes that the onus of proof of significant ground disturbance
rests on the applicant. It defines the modes of acceptable evidence, and the need to establish such
disturbance through direct reliance on evidence, to a level of reasonable satisfaction. It also reinforces
explicitly that the exception from undertaking a CHMP is triggered purely by legislative criteria such as
significant ground disturbance, and not by the potential absence or presence of archaeological material.

**Azzure Decision**

The Azzure Decision (Azzure Investment Group vs Mornington Peninsula SC, 2009) is particularly relevant to
the criteria of determining significant ground disturbance on small urban or suburban lots. In the Azzure
Decision, the Tribunal accepted that in the absence of ‘smoking gun’ evidence (i.e. proof beyond doubt) that
firmly establishes significant ground disturbance as defined in Regulation 4 (i.e. disturbance of topsoil by
machinery), evidence for significant ground disturbance can still be established to a sufficient level from
comparative and contextual information. Such information might include:

- the urban context: the timing of subdivision
- the shape, size, topography and configuration of lots
- the actual development of dwellings and outbuildings and pattern of use over time
- the provision of underground drainage and services
- the style and configuration of the house and garden
- the lack of remnant vegetation.

The following statement from the Azzure Decision (2009 VCAT 1600) is reproduced here in verbatim:

_The comparative and contextual information must still reasonably satisfy the decision maker that the
relevant land has been disturbed in the past by machinery in the course of grading, excavating, digging,
dredging or deep ripping (other than ploughing) – i.e. the definition of the AH Regulations must still be met.
However, in the absence of a single item of proof, the contextual approach may assist in achieving this
level of satisfaction though a reasonable inquiry and examination of a range of relevant information
(none of which necessarily conclusive itself) and ‘joining the dots’ to reach a common sense conclusion
from the available information....The standard of proof is on the ‘balance of probabilities’ – not proof
beyond doubt._

The Azzure Decision thus provides far clearer parameters for establishing the presence of significant ground
disturbance through the combination of a number of contextual or indirectly indicative pieces of evidence
which combine to establish that there exists better than 50% probability of significant ground disturbance
having occurred. The Azzure Decision (2009) is clear that for instance, where it is known that the methods of
subdivision, preparation and development of residential blocks in an area, had historically characteristically
taken place in a manner that entailed mechanical disturbance to the ground surface consistent with the
definition of significant ground disturbance – then such significant ground disturbance may be contextually
argued to be present in any similarly developed block.