

ENVIRONMENTAL PROTECTION ACT 1990 – PART IIA

**Review of Torbay Council's
Contaminated Land Strategy
2005**



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Executive Summary

The EPA 1990, Part IIa, imposed a statutory duty on all local authorities to write a strategy on how it would identify and deal with contaminated land within its area. This came into force in April 2000, with a requirement for the strategy to be written and published by July 2001.

Although there is no legal requirement to produce a new strategy, the initial document has been reviewed, to reflect the level of work undertaken since its implementation and provide a framework for future progress.

Torbay Council is committed to the effective implementation of the Part IIa regime to ensure the protection of human health and the environment. This document sets out how we will continue to:

- Take a pro-active and strategic approach to identify contaminated land; and
- Use a risk based approach in prioritising those sites identified for appropriate action.

The Council's priorities in dealing with contaminated land have not changed and are:-

- To protect human health, controlled waters and designated ecosystems
- To prevent damage to property and further contaminated of land
- To encourage voluntary remediation and re-use of brownfield sites.

In order to progress with the effective implementation of Part IIa regime inline with this methodology, a dual approach was undertaken in the initial strategy with two main aims:

- To develop an extensive database of detailed land use throughout Torbay, utilising MapInfo, a geographical information system (GIS), by June 2006; and
- To undertake the investigation of individual sites highlighted either through the inspection regime of Part IIa or planning process where there is the potential risk to human health or pollution of controlled waters. An implementation timetable was included within the initial strategy, Figure 2.

Work will be completed on establishing an extensive database of potentially contaminated sites by the end of March 2006. This has been a resource intensive exercise to ensure that the information has been collated in a measured and strategic manner, inline with best practice and legislation.

The local authority must seek to ensure that the most pressing and seriously contaminated sites are located first and prioritised. This will be undertaken using Clare, a risk prioritation model and completed by December 2006.

The majority of contaminated land sites are identified and brought to the attention of the local authority through the planning and building control regimes. This will continue to be the case as more brownfield sites come forward for development. Procedures outlined in Torbay Council' Contaminated Land Strategy 2001, will continued to be used to address contaminated land issues without the need to use the powers set out in Part IIa. Considerable time has been

spent on dealing with these sites to ensure effective remediation so that the land is suitable for use.

The revised implementation and inspection strategy will allow the authority to ensure compliance with, and the enforcement of the relevant legislation under Part IIa regime and the protection of health and the environment. Key milestones have been identified with a further review to be undertaken at the beginning of 2007. This will be required to assess resource implications once the identification and prioritisation of sites has been undertaken.

1.0 Background to the Review of Torbay Council's Contaminated Land Strategy

- 1.1 Under the provisions of Part IIa of the Environmental Protection Act 1990, each local authority has a duty to inspect the land within its area, to identify that which maybe contaminated, and was required to publish a Contaminated Land Strategy. This was produced by Torbay in 2001 detailing how it would identify and deal with contaminated land within its area.
- 1.2 The strategy set out a five year programme with key objectives and priorities. The key objectives of the Strategy were to:
- Protect health and the environment.
 - To ensure compliance with, and enforcement, of the legislation
 - To deal with the legacy of contaminated land using the 'suitable for use' approach in an ordered and prioritised way.
 - To ensure voluntary remediation of sites by polluters or other appropriate persons
 - To ensure that procedures are in place for the open provision of information to the public, developers etc.
 - To address the liability issues associated with the Council's existing land holdings and avoid any new liability issues associated with land acquisition
- 1.3 Dealing with contaminated land is a complex issue and must be dealt with in a consistent manner. It is therefore important to state the Council's objectives clearly and outline the Council's priorities. In relation to contaminated land the Council's priorities are:
- To protect human health, controlled waters and designated ecosystems
 - To prevent damage to property and further contaminated of land
 - To encourage voluntary remediation and re-use of brownfield sites
- 1.4 In order to progress with the effective implementation of Part IIa regime inline with this methodology, a dual approach was undertaken in the initial strategy with two main aims:
- To develop an extensive database of detailed land use throughout Torbay, utilising MapInfo, a geographical information system (GIS), by June 2006; and
 - To undertake the investigation of individual sites highlighted either through the inspection regime of Part IIa or the planning process, where there is the potential risk to human health or pollution of controlled waters. An implementation timetable was included within the initial strategy, Figure 2.
- 1.5 Although there is no legal requirement to produce a new strategy, the initial document has been reviewed to reflect the level of work undertaken since its implementation and provide a framework for future progress.

2.0 Initial Review

- 2.1 A review has been undertaken of the tasks and objectives set out in the initial document, to assess progress to date.

2.2 Contaminated land Strategy

- 2.2.1 This was produced and consulted upon, in April and May 2001. The final draft strategy followed in June 2001 after the completion of the consultation exercise. The strategy was then adopted by the Environmental Services Committee on the 20th June 2001.

2.3 GIS based information system

- 2.3.1 MapInfo is an invaluable tool in assessing potentially contaminated land. It allows a quick and complex pictorial assessment to be made of lots of different set of data. Numerous sources of information are utilised and databases have been developed to aid and enhance this process. This is a very resource intensive process which will be completed over the next six months.

Historical Database

- 2.3.2 Considerable time has been spent establishing a detailed database of previous land use and activities throughout the bay. The primary source of information has been from Kelly's Trade Directories, produced from 1910 – 1973. These street directories detail the names, addresses and types of commercial and industrial enterprise that were in operation throughout Torquay, Paignton and Brixham in any particular year. Given the huge volume of data which had to be reviewed, it was decided that only trade directories at 5 year intervals were collated.
- 2.3.3 A review was undertaken to establish a list of industrial/commercial activities that would have the potential to result in the contamination of a site. This has resulted in a large database containing over 4000 entries, which can now be used for reference in the future.
- 2.3.4 85% have been plotted onto the GIS system, providing a unique tool in identifying potentially contaminative actives. The remaining 15% will have to be plotted manually due to the lack of address information ensuring accurate identification, and will be progressed over the next six months.

Land Use Identification

- 2.3.5 After determining the location of sites where historical contamination may have occurred, it is necessary to determine what the site is currently used for, as well as the environmental sensitivity of the site's setting.

- 2.3.6 All epochs of the County Series maps from 1880 - post-war have been assessed with reference to land use. Each individual land use, as identified on the maps, has been polygoned and categorised. This not only helps with potential identification of sites but also in assessing risk and the identification of receptors.

Additional Maps

- 2.3.7 Additional geological and hydro-geological maps have been purchased to aid in the risk assessment process and identification of receptors.

MapExtreme

- 2.3.8 Mapextreme is a software application used with MapInfo. It aids access to information and allows different pictorial assessments to be undertaken. Through assessment of the software, it was concluded that this was not necessary and not progressed.

3.0 Risk Prioritisation of Sites

- 3.1 The local authority must seek to ensure that the most pressing and serious contaminated sites are located first and prioritised. Based upon the information now held within MapInfo, an assessment can be undertaken to highlight sites which could warrant further action.
- 3.2 A review of all the risk assessment tools available for the prioritisation of sites has been completed. Clare has been identified as the most appropriate assessment tool for Torbay. This is based upon the potential number of sites and types of polluting activities that are in existence within the area, as well as cost and ease of use.
- 3.3 This allows a scoring system to be utilised to establish a list of sites to be inspected and assessed based upon priority. Whilst a high score will not necessarily confirm that a site is contaminated, it does enable the prioritisation of resources to those locations within the authority where the risk of site contamination is considered to be greatest.
- 3.4 Due to lack of resources and the time taken to ensure that the information utilised by the model is accurate, a list of sites has not yet been produced that may warrant further action. It is the intention that this will be produced by the end of March 2006 inline with the requirement under BV 216.
- 3.6 An on going programme can then be established based upon the result of the prioritisation model.

Assessment of Land Transferred from Torbay Council

- 3.7 All land previously owned by Torbay Council and transferred to Riviera Housing Trust in 2000/2001 was assessed from a contaminated land perspective. All land transferred was

categorised and a basic desktop assessment undertaken from the information held at the time.

4.0 Determination and Remediation

- 4.1 No land has yet been classified as contaminated land within the framework and definitions of Part IIa. Nor have any special sites been identified by either Torbay Council or the Environment Agency.
- 4.2 There are therefore currently no entries on the Contaminated Land Public Register inline with the requirements under Part IIa.

5.0 Dealing with Urgent Sites

- 5.1 During the implementation of the strategy, sites have been identified or brought to the attention of the local authority that has required urgent attention. These are sites where it appears to the Council that there is an imminent danger of serious harm, or serious pollution of controlled waters. In all instances Torbay Council has liaised closely with the Environment Agency, and there has not yet been a need for the Council to take enforcement action itself.

6.0 Redevelopment of Brownfield Sites

- 6.1 The majority of contaminated land sites are identified and brought to the attention of the Local Authority through the planning and building control regimes. This will continue to be the case as more brownfield sites come forward for development. Procedures outlined in Torbay Council's Contaminated Land Strategy 2001, will continued to be used to address contaminated land issues without the need to use the powers set out in Part IIa.
- 6.2 This has involved Environmental Protection screening all applications received by the planning department, and where appropriate, conditions placed upon any consent granted. These conditions require the applicant to undertake a contaminated land survey to identify possible contamination and undertake any remedial works required to deal with any contamination found.

7.0 Other Progress

- 7.1 Torbay Council has been a key member in establishing a Contaminated Land Officers Group consisting of all the Local Authorities within Devon. The purpose of the group is to provide a forum for information exchange, advice and co-operation between the authorities and the Environment Agency.
- 7.2 The group which has been welcomed by the Environment Agency has produced a revised version of a 'Guide for Developers on Contaminated Land' and is in the process of producing further consistent guidance to be used throughout Devon.

- 7.3 Presentations have also been given to the Planning and Building Control Departments. This explained the local authority's involvement in the management of contaminated land and the requirements that should be placed upon developers to ensure that all development is suitable for use.
- 7.4 Software has also been purchased from the British Geological Survey (BGS) by Torbay Council to assist with the contaminated land searches that are requested. This also has the added benefit of allowing a more accurate and efficient desktop assessment.
- 7.5 Close links have also been established with Cornwall's Contaminated land Officers Group to ensure further consistency.

8.0 Overall Progress

- 8.1 Initial work has focused upon collating an accurate and detailed dataset to identify potentially contaminated sites. The integrity and accuracy of the information is of the utmost importance, not only in assuring the protection of human health, but to ensure the compliance and enforcement of legislation. Due to resource issues, sites that have the potential to be contaminated have not yet been identified or prioritised for investigation. A full list of sites with the potential to be contaminated will be produced by the end of March 2006.
- 8.2 Considerable time has also been spent on dealing with sites that have arisen through the planning and development process to ensure effective remediation.
- 8.3 All other tasks detailed in the initial strategy have been completed.

9.0 Revised Implementation and Inspection Programme

- 9.1 There are still outstanding objectives from the initial strategy, all but the prioritisation of potentially contaminated sites will be completed by the end of March 2006. It was initially recognised that the investigation of sites was an ongoing task and will remain so until all sites identified through the risk assessment process have been evaluated.
- 9.2 The revised inspection and implementation framework has been prepared following detailed development work with MapInfo. Further development work will need to be undertaken to enhance the information held. Specific task and data capture exercises are detailed in the revised inspection, prioritisation and implementation programme, Figure 2.
- 9.3 The outstanding identification and inspection of sites will be carried out in a phased approach:
- An initial desktop study using the historical database, aerial photography, current and historical land use maps together with other sources of information will be used to

identify whether land has any potential for contamination. This will allow a list of potentially contaminated sites to be identified. **To be completed by April 2006.**

- Land is further assessed using a risk prioritisation software package, Clare. This is used to establish source-pathway-receptor linkages. Furthermore, a risk score is calculated to rank sites for further inspection. **To be completed between April – December 2006.**
- Initial site inspection consists of a site walkover and further desk studies to identify all relevant information about the land. At this point, it is possible to eliminate many sites from further inspection if sufficient information is available and if no risk of harm or potential to pollute controlled waters can be established. **On going from December 2006.**
- Land not eliminated through the above process will be prioritised for detailed intrusive and non-intrusive investigation. **Ongoing from December 2006.**

Figure 1 on page 7 details elements and decision points at each stage of this process.

- 9.4 Any assessment of land will be reviewed in light of these investigations and appropriate action will be taken in the event of significant harm being identified. The timescale to complete the investigation of all sites with the potential to be contaminated will depend upon the number of sites identified, which is impossible to determine at this stage.
- 9.5 It is likely that only a very small proportion of land within Torbay has the potential to be contaminated sufficiently to warrant formal action. The object is to target those areas' which are likely to give rise to concern taking the risk to health as a first priority.
- 9.6 This will allow the local authority to;
- Adopt a strategic approach to inspection
 - Identify factors relevant to site history
 - To rank sites in a transparent, unbiased, efficient and rational way by identifying the most pressing and serious problems first.

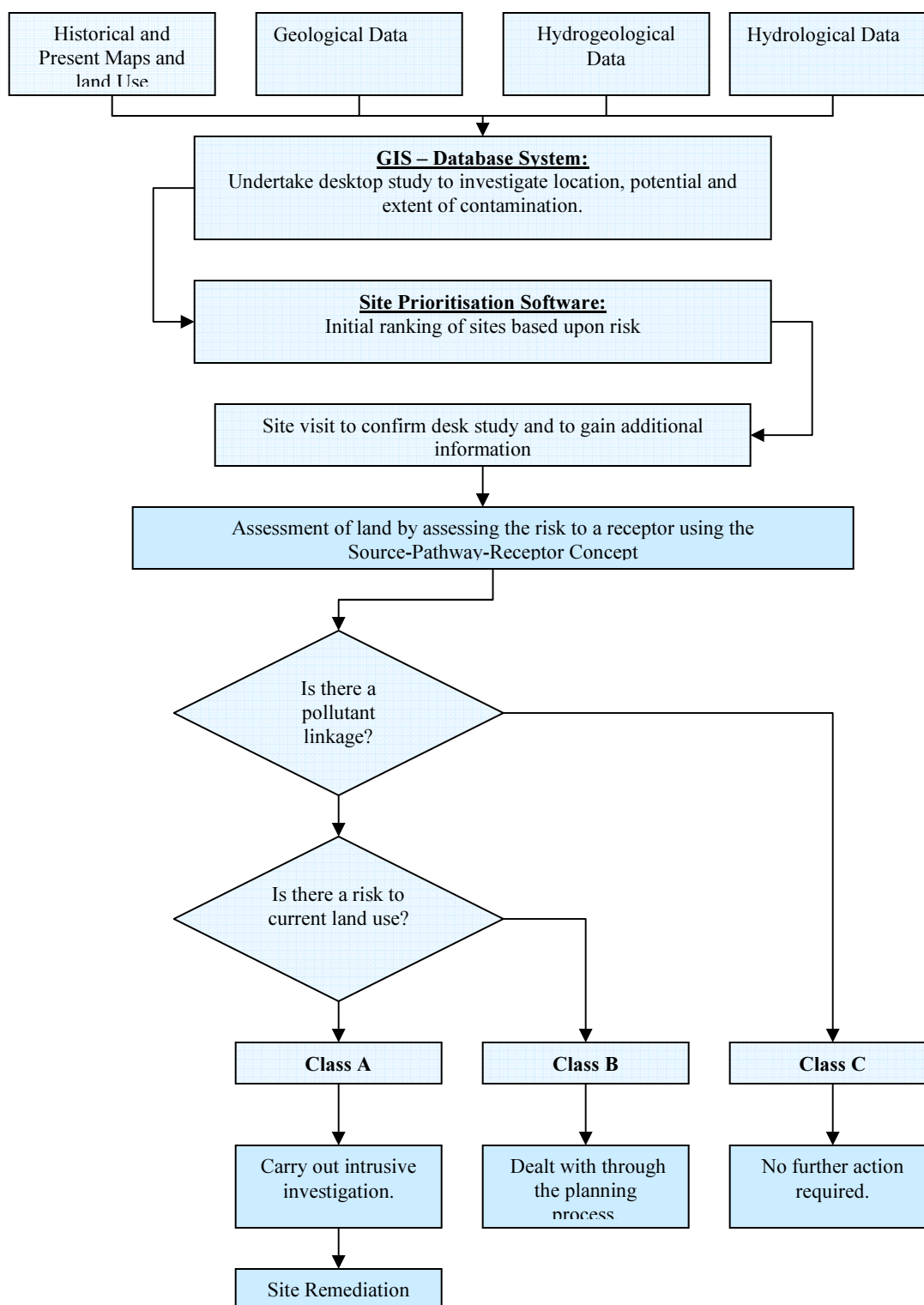


Figure 1: Flow diagram of Risk Prioritisation. The terms Class A, B and C are explained in table 1.

Classification	Description of Land in this Category
Class A	This is land where a past or present contaminative use has been identified and where there is a possibility that it might affect a receptor. Examples of land that fall into this category are landfill sites where there are no measures to control lateral migration of gas. Also, highly contaminative industrial process located within a groundwater protection zone or near a water abstraction point would fall into this class. Parcels in this category will be subdivided into high, medium and low priority sites for detailed inspection.
Class B	This is land where a past or present contaminative use has been identified, but no source-pathway-receptor linkage could be established. Land in this category is considered suitable for its current use. This category will also include land already regulated as processes under IPC or IPPC, licensed waste disposal sites, vacant land in predominantly residential areas or existing industrial processes where there are no vulnerable receptor. It is believed that initially a large percentage of the industrial or vacant land falls into this category. This land will be reappraised through the planning process when the land use changes or when resources are available to carry out a more detailed assessment of the land.
Class C	This is land where no pollution linkage has been identified. Typical for this class would be agricultural areas, residential or educational land that has been built on green field sites or parks with no contaminative history. For land to be classified as Class C there needs to be confidence that the land use can be traced back. Although the majority of land in this class may be considered to be free of contamination due to no contaminative land uses being identified, there may be small areas, which have contamination on them.

Table 1: Prioritisation Classes

- 9.7 The programme outlined for the continued implementation of the strategy will also enable the authority to meet its new requirements under BV 216. This requires the local authority to have identified and establish how many sites are of potential concern with respect to contaminated land within its area. Further work to complete the GIS database will assist with this process.

10.0 Further Reviews to the Inspection Strategy

- 10.1 This document represents the first formal review of the initial strategy completed in 2001. A further review will be required with regards to resource implications, once the identification and prioritisation of sites have been undertaken. It is anticipated that this will be completed at the beginning of 2007.
- 10.2 Should there be any significant changes in the projected timescales for completion, then the reviewed document will be brought to the attention of the Council's Executive through the appropriate committee structure.

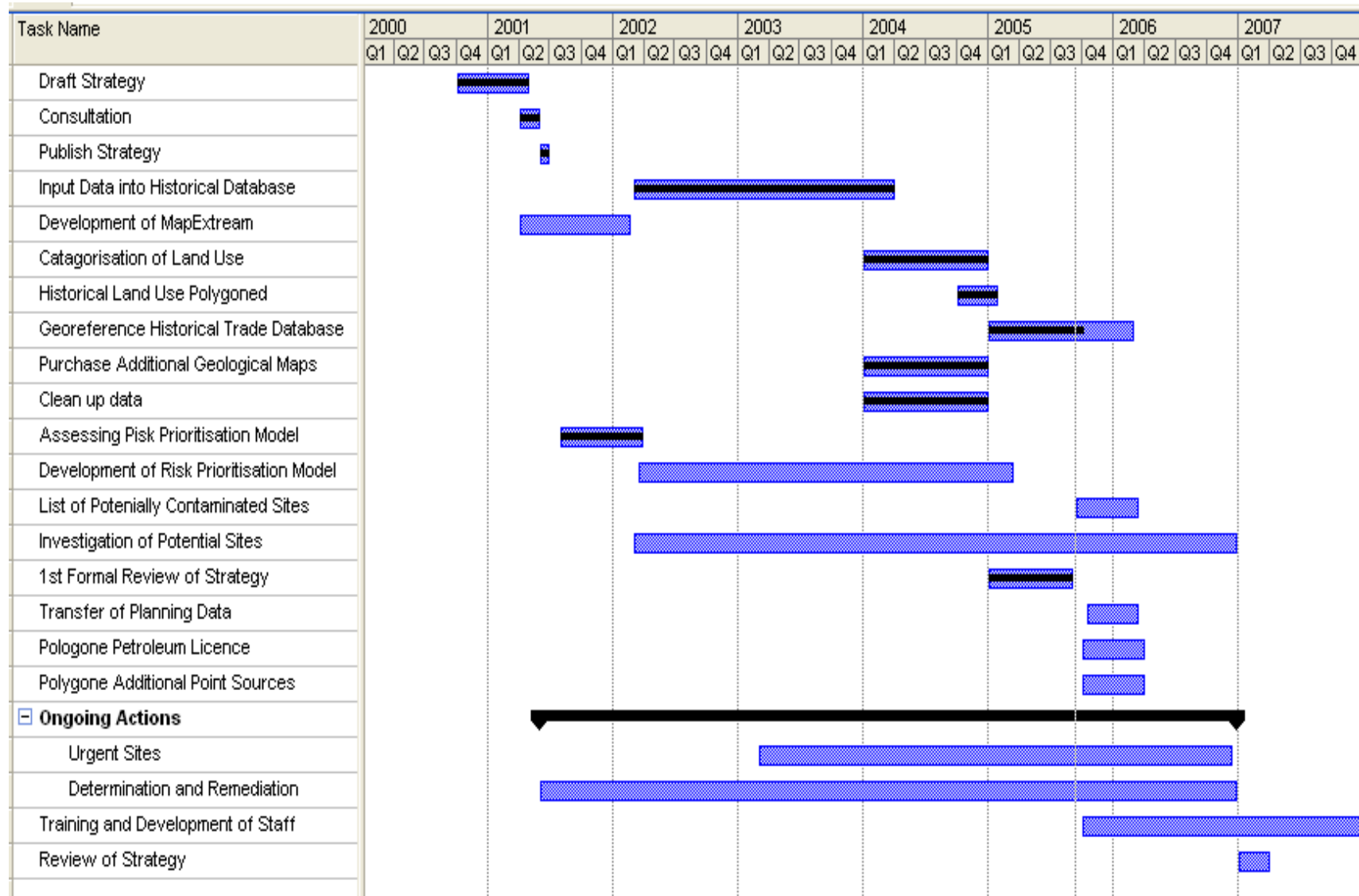


Figure 2: Revised Implementation and Inspection Strategy (Coloured bars with black lines through them represent completed tasks)