

STODDART WEIRS

STODDART POINT
DIAMOND HARBOUR

ARCHITECTURAL CONSERVATION
& MANAGEMENT PLAN
9 September 2017



The upper weir c1890

Prepared by:

Tony Ussher - Architect & Conservation Consultant

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& MANAGEMENT PLAN

PREPARED FOR THE
CHRISTCHURCH CITY COUNCIL

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INTRODUCTION

1.1 Executive Summary

This Architectural Conservation and Management Plan (plan) for the on-going conservation of the Stoddart Weirs is to be read in conjunction with existing reports and assessments that determine their significance. The preparation of this plan for the Stoddart Weirs implements considers and includes the policy formulated recommendations arising from these included in the “*Stoddart Point Reserve: an Archaeological Assessment*”¹ and “*Landscape History and Conservation Report*”.²

These two reports address the broader context of the Stoddart Point Reserve of which the Stoddart Weirs are a part. This plan includes a summarised history of the settlement of Stoddart Point and of the weirs. The statement of significance of the weirs is determined from the assessments of significance in the Archaeological Assessment and Landscape Conservation reports, reference to Heritage New Zealand Pouhere Taonga files and documentation for listing of the weirs, and from a Comparative Analysis of similar structures in New Zealand.

The following is a summary of the recommendations of the plan.

- **Location and Site**
The site of the weirs is on Stoddart Point to the east of the Godley House ruins and below Stoddart Cottage. The weirs and site are part of the Stoddart Point Reserve.
- **Summary Statement of Significance**
The Stoddart weirs are considered to have high overall Cultural Heritage Value, particularly the upper weir for its technological and craftsmanship qualities, but also the two weirs together as a grouping. The upper weir has high historical and social significance as the only known local example of a 19th century stone weir constructed for agricultural and horticultural purposes, and the weirs have high associational value being associated with an early settler in the harbour and pioneering farmer, Mark Stoddart.

The Stoddart weirs are of archaeological significance being significant relic providing evidence of a colonial settlement in a transformed landscape. The setting is highly modified by infilling of the gully and water course that served the weirs to form the recreation grounds, and by planting of the sides of the gully altering the historic open grassland setting. However, the Archaeological Assessment of the weirs describes them as having high contextual and rarity values, and medium–high overall assessed archaeological value.

- **Heritage Listings and Classifications**
The weirs are not included in the Heritage New Zealand Pouhere Taonga (HNZPT) List although there is an incomplete registration proposal on the HNZPT file 12009-992 for the upper weir.

The weirs are recorded as an Archaeological site, NZAA site record reference M36/157.

Stoddart Cottage and its setting are listed by HNZPT as a Category 1 Historic Place, reference 3088. The weirs and Stoddart Cottage together are contextual evidence of early farming and settlement.

The Territorial Authority is the Christchurch City Council. The Stoddart Weirs are not specifically scheduled as protected historic heritage in Appendix 9.3.7.2 of the *Christchurch District Plan*, although the overall setting of Stoddart Point has numerous designations under Sections 9.5, Ngāi Tahu values and the natural environment, and is in the Coastal Environment zone, section 9.6 of the Christchurch District Plan. Stoddart Cottage is scheduled in the Christchurch District Plan, *Appendix 9.3.7.2 Schedule of Significant Historic Heritage* as a Highly Significant place, reference 671, and the interior fabric is scheduled in the *Register of Interior Heritage Fabric*.

¹ Underground Overground Archaeology, Stoddart Point Reserve: an Archaeological Assessment, January 2016.

² Louise Beaumont, Landscape History and Conservation Report, June 2016.

Conservation Policies

The key conservation policies affecting the conservation of the weirs arising from the Archaeological Assessment and Landscape Plan reports include:

- All conservation undertaken is in accordance with the ICOMOS New Zealand Charter 2010, with work being confined to that which is considered to be necessary and requires the minimum change possible for use of the weirs, the appointing of a conservation architect or suitably qualified heritage advisor to advise on conservation and recording of the weirs and other features.
 - That generally, any conservation work should not diminish authenticity or heritage values.
- **Key conservation direction and recommendations**

Key conservations recommendations are:

 - That the weirs and catchment pond areas be preserved as physical evidence of early farming practice and structures in New Zealand following their repair to stable condition and partial reconstruction using processes of stabilisation, maintenance and repair. Reconstruction and restoration should be kept to the minimum possible to ensure their archaeological and other heritage values are retained, and the weirs and pond areas continue to provide physical evidence of farming and construction technologies used by early European settlers.
 - That the historical open grassland setting around the weirs be reinstated rather than allowing tree and shrub planting to encroach obscuring the interpretation of the weirs and their historical purpose.
 - Retention of significance: Heritage features, elements and fabric should be retained wherever possible as a way of conserving the cultural significance of the Stoddart Point Reserve. Any intervention should be undertaken with regard to the determined significance of individual elements.
 - That the Christchurch City Council should consider protecting the weirs and setting through their inclusion in the schedule of historic heritage in the District Plan.
 - **Identified Risks**
 - Lack of Maintenance, erosion, tree roots and planting, neglect and vandalism.
 - Introduction of indigenous planting in close proximity to the weirs and ponds that conceal their original farmland setting present when the farm was established by Mark Stoddart.
 - Flooding causing wash out and damage to the weirs.

1.2 Purpose of this Architectural Conservation and Management Plan

This plan for the Stoddart Weirs and their setting has been commissioned by and prepared for the Christchurch City Council Parks Unit. The *Stoddart Point Reserve and Coastal Cliff Reserves Network Diamond Harbour/Te Waipapa Management Plan 2013*³ Policy 3.10.1 states that *A conservation report for the heritage sites within Stoddart Point Reserve, including the lower and upper Stoddart Weirs shall be prepared to inform the future management of the heritage values of the sites.*

Furthermore, the plan has been commissioned following recommendations of the *Stoddart Point Archaeological Assessment* prepared by Underground Overground Archaeology to assist with the protection and on-going conservation of the two weirs and their setting.

Throughout the Architectural Conservation and Management Plan, it is referred to as the 'plan', and the Stoddart Weirs as the 'weirs'.

1.3 Approach & Methodology

The plan establishes and records the cultural significance of the weirs and reports on its current condition and status. James Semple Kerr in the *"Conservation Plan"* states the purpose of determining cultural significance "... is to help identify and assess the attributes which make a place of value to us and our

³ Christchurch City Council. *Stoddart Point Reserve and Coastal Cliff Reserves Network Diamond Harbour/Te Waipapa Management Plan 2013*

society. An understanding of it is therefore basic to any planning process. Once the significance of a place is understood, informed policy decisions can be made which will enable that significance to be retained, revealed or, at least, impaired as little as possible. A clear understanding of the nature and level of the significance of a place will not only suggest constraints on future action, it will also introduce flexibility by identifying areas which can be adapted or developed with greater freedom.”⁴

The plan includes the evaluation of the social, cultural, architectural, landmark and technological significance of the weirs and their setting. Summary statements of significance are formulated to assist with the implementation of conservation policy. A framework within which to plan for future change is provided and within which conservation and maintenance work can be programmed and undertaken.

All conservation work required and recommended shall be compatible with the *ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, 2010*.

1.4 Authorship

The plan has been prepared by Tony Ussher, Conservation Architect for the Christchurch City Council Parks Unit.

1.5 Acknowledgments

The following institutions and individuals have assisted in various ways with the preparation of this plan. Their generous help is acknowledged.

Heritage New Zealand Pouhere Taonga (HNZPT): Southern Regional Office for access to their files and photographs.

Christchurch City Library: New Zealand Room.

Archives NZ for assistance with historical records.

1.6 Ownership and Legal Status

The Stoddart Point Reserve of which the Stoddart Weirs are a part, is owned by the Christchurch City Council.

The legal description of the Stoddart Point Reserve of which the weirs are a part, is Part Lot 5 DP 14050.

1.7 Heritage Classification

The weirs are not included in the Heritage New Zealand Pouhere Taonga (HNZPT) List although there is an incomplete registration proposal on the HNZPT file 12009-992. The registration proposal refers only to the upper weir. The weirs are recorded as an Archaeological site, NZAA site record reference M36/157, which includes both upper and lower weirs.

Stoddart Cottage and its setting are listed by HNZPT as a Category 1 Historic Place, reference 3088. The weirs and Stoddart Cottage together provide contextual evidence of early farming and settlement.

Stoddart Cottage is scheduled in the Christchurch District Plan, *Appendix 9.3.7.2 Schedule of Significant Historic Heritage* as a Highly Significant place, reference 671, and the interior fabric is scheduled in the *Register of Interior Heritage Fabric*.

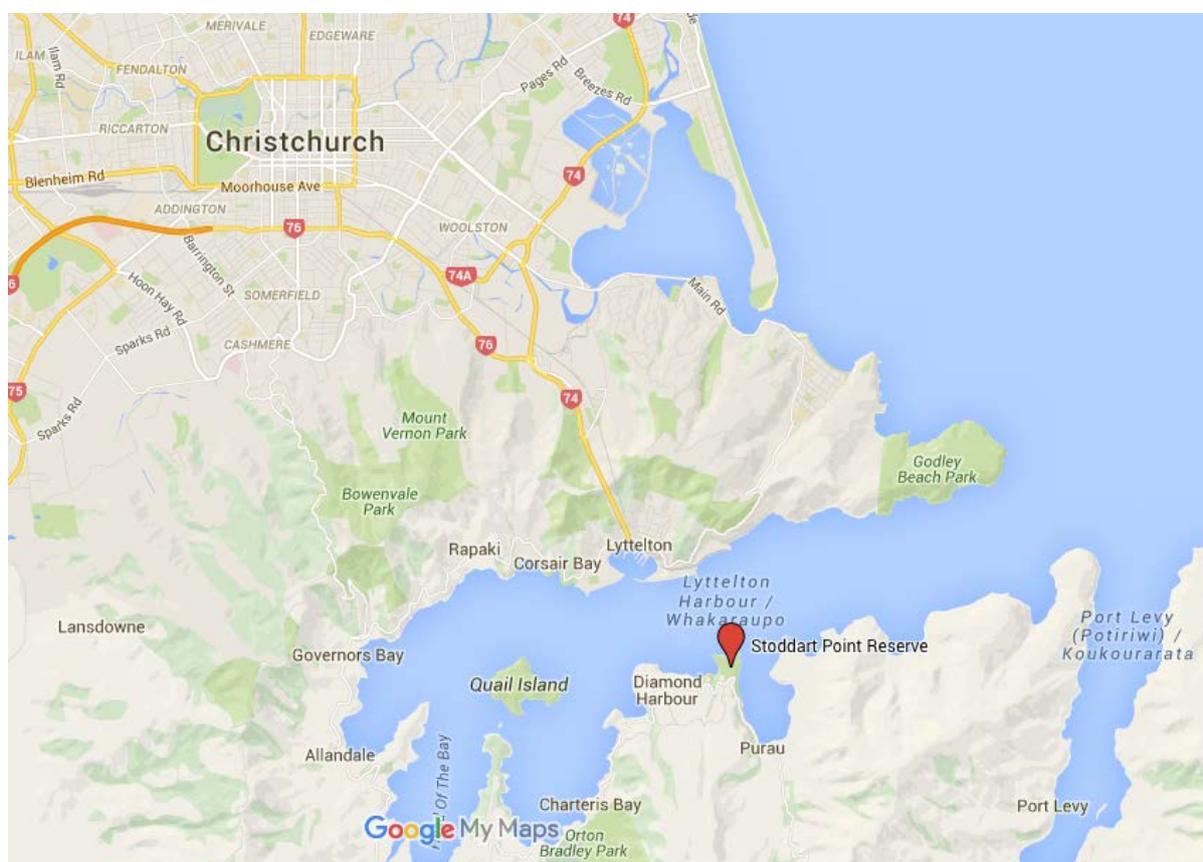
⁴ James Semple Kerr. *The Conservation Plan. A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*

Stoddart Weirs Architectural Conservation & Management Plan

The Territorial Authority is the Christchurch City Council. The Stoddart Weirs are not scheduled as protected historic heritage in Appendix 9.3.7.2 of the *Christchurch District Plan*. However, the policies and associated rules contained in section 9.3 apply to Stoddart Point Reserve that includes the weirs. These are:

- 9.3.2.1 Protection of Sites of Ngai Tahu Cultural Significance
- 9.3.2.2 Protection of Significant Historic Heritage – Heritage Items and Heritage Settings
- 9.3.2.5 Archaeological Sites
- 9.3.2.6 Heritage Conservation Management and Heritage Principles – Heritage Items and Heritage Settings
- 9.3.2.7 Ongoing, Viable Use of heritage Items and Heritage Settings

The weirs are recorded as an Archaeological site, NZAA site record reference M36/157. The Heritage New Zealand Pouhere Taonga Act 2014 defines an archaeological site as a place associated with pre-1900 human activity, where there may be evidence relating to the history of New Zealand.



Source: Google Maps

Location Plan showing the location of Stoddart Point in relation to Lyttelton Harbour and Christchurch



Source: Underground Overground Archaeology Ltd. Stoddart Point Reserve: an Archaeological Assessment. (Image supplied by the Christchurch City Council).

Stoddart Point showing the location of the weirs and other site features.

PART 1: UNDERSTANDING THE PLACE

2. UNDERSTANDING THE PLACE – DOCUMENTARY EVIDENCE

2.1 Historical Context

2.1.1 Maori Settlement and History

The Ngai Tahu claim traditional rights over most of the South Island, Te Waipounamu. Evidence indicates Canterbury was first settled by Māori c1250 with a historic lineage of the Waitaha, Ngati Mamoe and Ngai Tahu. By the 18th century Ngai Tahu had settlements established throughout Christchurch and Banks Peninsula with pa at Puaha in the valley behind Little River (known as Ohiriri), Oruaka at Birdlings Flat between Lake Forsyth (Wairewa) and Lake Ellesmere (Te Waihora), Taumutu at the southern end of Lake Ellesmere, Okeina or Okains Bay, Onawe on Akaroa Harbour, Rapaki at Lyttelton Harbour and at Port Levy (Koukourata). By the late 18th century Ngai Tahu also had settlements established on the outskirts of Christchurch at Kaiapoi (Kaiapohia).

By the 1830s, Banks Peninsula had become a European whaling centre, which was to the detriment of the Banks Peninsula iwi, who succumbed in large numbers to introduced disease. This coincided with a devastating inter-tribal feud that started in 1825, decimating the population. The five-year feud between the Wairewa and Taumutu people fighting their kin of the Kaituna and Pices Valleys and the eastern peninsula settlements, eventually involved the whole tribe as far as Foveaux Strait. In this period, every pa on Banks Peninsula was destroyed and the population was reduced from possibly 3,500 to 400 people in total. This event was known as the Kai Huanga (eat relations) feud. Following this devastation, Te Rauparaha's raids from the North Island in the 1830s at Kaiapoi and Onawe in Akaroa harbour saw the almost complete demise or displacement of Banks Peninsula Maori.⁵ To escape the raids Maori from Rapaki and other pa sought refuge in the hills above Purau. Ngai Tahu waged campaigns in 1833 and 1834 against Te Rauparaha that saw him defeated and removed from Ngai Tahu lands.⁶ With the increasing encroachment of Europeans, previous feuds were put aside. However, as a consequence of the feud and Te Rauparaha are raids, at the time of European settlement starting in the 1840s there were few Maori living in the settlements on Banks Peninsula or Canterbury. During the next 25 years displaced Maori and freed slaves of Te Rauparaha returned and other Maori came into the peninsula area of Canterbury from the south of the South Island and from the West Coast.

During the relatively peaceful years of the 1840s the local Maori of Banks Peninsula prospered and were known to be excellent pastoralists trading produce with the new settlers. However, in 1849 a flu and measles epidemic swept through the peninsula from which the local Maori population never fully recovered and it was later feared that the iwi would be gone completely by the end of the 19th century. Just prior to the arrival of the Canterbury Association Pilgrims in 1850, a detailed population count in connection with land purchases showed fewer than 500 Maori were living in Canterbury. They were distributed as follows: Between the Waimakariri and Ashley Rivers, 29 (mainly at Tuahiwi).⁷

Te Hapū o Ngāti Wheke Rūnanga holds mana whenua, mana moana (customary authority) and kaitiaki responsibilities over the land, waterways and sea within the takiwa of Whakaraupō (Lyttelton Harbour) and Kaituna including Stoddart Point / Upoko o Kurī.

At various times there were settlements in many of the sheltered harbour bays including Rapaki, Purau, Te Pohue (Camp Bay), Ohinetahi (Governors Bay) and Te Waipapa (Diamond Bay). The intensive use of the area is also reflected in the many urupā (tapu burial sites) that are said to be located around Purau Bay, and in the number of Māori archaeological sites recorded in the area. Additionally, Purau was a native reserve (1868-189?) and settlement of the Te Rangi Whakaputa hapū of Ngāi Tahu.⁸

⁵ [http://www.wairewa.org.nz/wairewa history.asp](http://www.wairewa.org.nz/wairewa%20history.asp)

⁶ <http://wairewamarae.co.nz/about/about-us/history/>

⁷ A.V. Barley. Peninsula and Plain The history and Geography of Banks peninsula and The Canterbury Plains p40

⁸ Louise Beaumont , Landscape History and Conservation Report.

Three pre-European archaeological sites are recorded within the Stoddart Point Reserve and two particular sites within the reserve are identified by Te Hapū o Ngāti Wheke Rūnanga as being of importance for their visual relationship with significant ancestral sites across Lyttelton harbour. These archaeological sites on Stoddart Point of significance to are:

M36/13: Terrace/midden in the reserve below Godley House and adjacent to the cemetery.

M36/14: Pit/terrace located on the main spur of Stoddart Point.

M36/98: Shelter/midden at Smuggler's Cave on the north bluff of Stoddart Point.

There are no specific sites of significance identified with the Stoddart Weirs setting.

2.1.2 European Settlement of Banks Peninsula and Diamond Harbour

The first Europeans to live ashore at Bank Peninsula were sealers and whalers. Banks Peninsula was being regularly visited by European sealers and whalers from the early 1800s and surveyors were surveying the coastline. The French were interested in colonising Banks Peninsula and in 1839 established the Nanto-Bordelaise Company in France that claimed the purchase of all of Banks Peninsula from Ngai Tahu. The Kemp settlement of land in 1848 purchased the land for the Canterbury Settlement from the Ngai Tahu chiefs. However, the Banks Peninsula area was subject to the New Zealand Company purchasing the Nanto-Bordelaise Company interest to finalise their claim in time for the Canterbury Settlement in 1849.

The first permanent settlers to settle in the harbour arrived in the Christchurch area in 1843. Among them were the Manson and Gebbie families who settled at the head of the harbour, then called Port Cooper, (later to be named Port Victoria before being renamed Lyttelton Harbour), near Teddington. They leased land from the local Maori, and set about growing fruit and vegetables, and producing cheese that they sold to ships visiting Lyttelton and to Banks Peninsula whaling stations.

Their claims to the land, as well as that of the Rhodes at Purau all subsequently came under threat when the New Zealand Company negotiated purchase of the land from the Maori for the Canterbury Association settlers that were due to start arriving in 1850. The New Zealand Company acquisition of all the land encompassing Port Cooper (Lyttelton Harbour) and Port Levy had serious implications for these early settlers as they were regarded as squatters. Protracted negotiations between the early settler families were resolved over time and their rights to the lands and its freehold were eventually recognised.

(The history that follows is summarised from the *Stoddart Point Reserve Landscape history and Conservation Report*.⁹)

Following the arrival of the Canterbury Association pioneers in December 1850, one of the earliest European settlers to purchase land for settlement in the area now known as Diamond Harbour was Mark Stoddart, who acquired the harbour's 50-acre headland (RS 246) in 1852. The land order for this rural section was originally held by Reverend Robert Bateman Paul, who held a pre-emptive right of purchase for the land, but elected not to take up the headland property. Prior to this, the Greenwood brothers of Purau had utilised land at Diamond Harbour from 1844 for cultivation. The extent, nature and exact location of their cultivations have not been recorded.

Having acquired the headland, Stoddart is reputed to have named the bay Diamond Harbour, influenced by the effect of the sun on the harbour waters, and called his land holding 'Craigiburn, Diamond Harbour', as recorded in the first electoral records for Lyttelton published in 1853. Through its association with Stoddart, the headland became known as Stoddart's Point and this name was formalised by at least 1864, as documented in the Harbour Regulations Gazette of that year.

⁹ Louise Beaumont. Stoddart Point Reserve Landscape History and Conservation Report, June 2016.

Over a ten year period, Stoddart expanded his landholding through the gradual accumulation of freehold blocks, and by 1862 he held titles to Rural Section (RS) 246 (50 acres), RS 1333 (173 acres), RS 498 (80 acres) and RS 2404 (58 acres). In addition, he leased 100 acres (RS 243E) from the Church Property Trustees for a twenty-one year term. The property was initially managed by his cousin, Mark Sprot, with Stoddart taking up residence from at least 1861.

Previous histories have suggested that the cousins initially occupied a small cottage to the northwest of the present location of Stoddart Cottage. However, correspondence from Mark Stoddart to the Provincial Superintendent in 1862 indicates that their first cottage was located on the western point of the headland above the jetty and close to the signal staff that they were both responsible for manning.

Post 1862 this headland cottage is thought to have been used by Stoddart to accommodate workers and is likely to have been the hut or the 'wee hut' referred to in the Stoddart Journals. It is possible that "the house at the signal staff" became the home of Thomas (Tom) Wyman, the waterman from the mid-1860s, and by association became known as the Waterman's Cottage. In addition to his job as waterman, Wyman also undertook various labouring and carting jobs for the Stoddart family from this time.

The Waterman's Cottage was pulled down in the late 1890s and the timber reused in some capacity in Church Bay.

Another building on the Stoddart's' property, referred to as 'Morgan's Hut', was located on RS 498. This hut was close to the watercourse (Morgan's Creek) which marked the boundary between RS 1333 and RS 498, and near to the reserve set aside for the Purau and Charteris Bay Road. Stoddart acquired RS 498 in July 1860, one year after he had received the crown grant for RS 1333.

In 1861, prior to Stoddart and Sprot's relocation to their new accommodations, a record of progress on the Diamond Harbour landholding was reported in the *Lyttelton Times*:

... One of the most striking features of the harbour, presenting itself immediately before the eyes of the stranger who enters it, is a mass of cultivation at Diamond Harbour, on the southern side of the anchorage, immediately opposite Lyttelton. The beauty of the spot, with the neat house, pretty garden and green fields about it, immediately arrest the eye; and the great extent of operations in progress — nothing less than turning the whole foot of Mount Herbert into English pasture land, — indicates at once the ornament which the place will become to Port Cooper within the year now commencing.

One year later, in February 1862, Stoddart married Anna Schjött, a Norwegian clergyman's daughter who had come to New Zealand as a companion/governess. The couple moved into their new home on February 27, 1862 which they referred to as 'Point Cottage', (now Stoddart Cottage). The cottage is thought to have been purchased by Stoddart as a prefabricated structure during a stock buying trip to Australia in 1861 and extended in later years to accommodate the couple's growing family.

Soon after the couple's move into their new accommodation, the grounds around the cottage were developed, and journal entries from 1862 record that some plant material was transplanted into the garden, presumably from the cottage on the headland.

Fruit tree transplanting, purchasing, planting and grafting was ongoing and by 1870 the Stoddart's orchard contained a considerable number and diversity of fruit trees. Cane plantings included raspberries, gooseberries, strawberries and red and black currants, and the family developed expansive vegetable gardens. Oats and hay were cultivated for stock, mushrooms were picked from the fields, and paddocks were grassed.

Produce from the orchard and vegetable gardens was variously sold at the Lyttelton market, shipped to the Dunedin markets or sold to passing ships. Eucalypts were grown and trimmed for 'hard posts', cut for fencing battens, or for rails, and were also used to construct hurdles which were also sold at the Lyttelton market. The family also sold wool, sheepskins, live fat lambs and slaughtered sheep and, following the importation of Cotswold-Merino cross sheep from Australia, sold cross bred Cotswold rams.

As stock numbers increased Stoddart had the fern, broom and tussock in Morgan's and Sam's Gullies burned off and grass seed was sown. These firings were documented in the couple's journal in 1865 and 1870.

A jetty was built by (John?) Grubb, and it and a wharf-crane are referred to in correspondence from mid-1862, although the jetty is likely to have been completed some years earlier. Similarly, the road to the jetty was formed by November 1864, but a more informal track must have been in use prior to this time to enable the loading of sheep and landing of materials. Although both the road and the jetty were constructed at Stoddart's expense, he described the road in 1874 as serving the local public more than the family.

Other structures that formed part of Stoddart's operation included sheep yards that were constructed in January 1865, a wool shed along with a brick-lined sheep-dip with draining pens, and stables, all located in the vicinity of the present sports ground. The property had a temporary winter source of water from "*a hole of [Stoddart's] own construction*" which was located near Morgan's Creek's discharge on the foreshore between Stoddart's jetty and the ballast wharf. This is identified in Stoddart's 1864 map marked 'Winter W. Place'. (Refer to the Landscape Report for maps showing the location).

Following the move to the new cottage, the Stoddart's personal, stock and horticultural water requirements were met through the construction of a brick water storage tank in March 1862. Soon after, two dams – a lower and upper dam were constructed, and variously repaired and rebuilt following a flood in mid-1862. Further references to these dams are made in the couple's journal, the latest being in 1868. These are believed to be the structures known now as the Stoddart weirs, the subject of this plan.

A new dam was constructed in November 1864. This was fenced in February 1865 and subsequent journal entries record a garden at the dam. The location of this dam is unclear, but it appears to be an additional structure to the two weirs rather than a replacement, as journal entries continue to also reference the upper and lower dams.

In 1874 Stoddart signalled his intention to subdivide his property. It is not clear what interest this proposal generated but, by April 1876, Lyttelton merchant Harvey Hawkins had taken a mortgage over much of the estate with the exception of RS 243E which was owned by the Church Property Trust, and RS 22982 (Point Cottage) which he subsequently acquired in May 1886. Mark, Anna and their children, one of which, Margaret, went on to become one of New Zealand's leading painters, relocated to Scotland for several years before returning to Christchurch in 1880, living in Fendalton.

After Harvey Hawkins' purchase of Stoddart's Diamond Harbour estate in 1876, he built Godley House and a new wharf. In 1894 Hawkins was declared bankrupt, and after the property failed to sell, it reverted to the Stoddart family in 1897 who leased or sold it off in portions. Stoddart's widow lived there with her three daughters, one of whom, Margaret, was an accomplished and renowned watercolourist.

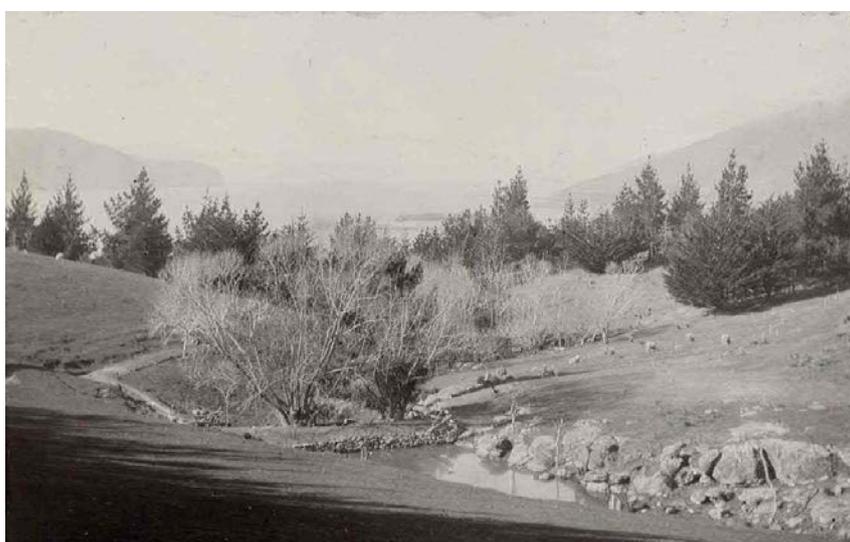
Following Anna Stoddart's death in June 1911, the family offered to sell its estate to both the Lyttelton Borough Council and the government. An inspection by the Lyttelton Mayor, Town Clerk and Foreman of Works determined that from a health point of view, Diamond Harbour was superior to the town of Lyttelton and, by October 1911, the Lyttelton Borough Extension Act had been enacted. This act enabled the council to purchase land outside the limits of the borough, incorporate it in the borough and establish or subsidise a ferry service to ply the harbour between Lyttelton and the new subdivision.¹⁰

In March 1912 the Mayor organised a picnic for councillors and ratepayers to view the estate prior to conducting a ratepayer poll. Following ratepayer poll taken in February 1913, a special loan was raised enabling the Lyttelton Borough Council to purchase 356 acres of the Stoddart estate for the sum of £7,000 and undertake its development at a cost of £8,000.

¹⁰ Louise Beaumont. Stoddart Point Reserve Landscape History and Conservation Report, June 2016.

2.1.3 Historical Significance of the Stoddart Weirs

Mark Stoddart introduced sheep farming and stock water needed for them came from dams constructed across a natural waterway in a gully some 200 metres below Stoddart Cottage, and in the gully below the future Godley House and cemetery sites. The weirs were built c1862 to provide water for the stock. The upper weir was well built of locally sourced volcanic rock whilst the smaller, lower weir was of cruder earth and stone construction. The stone construction of the upper weir is representative of early farming technology as practiced by a Scottish settler, Mark Stoddart. The upper weir's construction is considered unusual in New Zealand for its choice of stone for its construction.¹¹ The historical context of weirs and their setting as established by Stoddart is of the weirs in a farmland setting which include fruit tree orchards and stands of blue gums. Early photographs of the weirs show them in the rural, pastoral setting with pasture around them and the gravel road crossing across the top of the upper weir. The photographs show that Willow trees have taken hold on the banks of the ponds and the water course. The trees would have been a damage risk to the weirs and a cause of blockage of the watercourse and would have required maintenance or removal of them to prevent permanent damage.



The upper stone weir with the farm cart track across the top of the weir. Planting along the water course is weed willows, and the *Macrocarpa* to the right of the photo may be the large tree still existing.



Source: 2015.114.75, Stoddart Album 1, Page 16, CMDRC Stoddart weirs and weir Detail c1890s

¹¹ Heritage NZ file 12009-992, assessment for registration.

The levelling of the gully and water course to form the recreation grounds removed the water supply to the weirs and the catchment ponds remain but are dry. In c1913 there is reference to “some levelling of the recreation ground”.¹² It has not been determined whether the levelling of the gully between Stoddart cottage and the weirs, (in front of Stoddart Cottage and above the weirs), dates from this time, but this date also coincides with the date of the proposed development of the Diamond Harbour Estate residential sub-division and the provision of a golf course and playing fields were seen as an added attraction to potential purchasers.

In 1945, a breach was formed in northern end of the upper weir with the removal of stonework from the weir. The reason for this breach may have been to drain the weir and to keep it empty.

In 1995, the Diamond Harbour and Districts Historical Association (DH&DHA) lobbied the Banks Peninsula Borough Council for District Plan protection of the weirs. At this time there was concern that the weirs would be damaged and lost through the continuing dumping of spoil and rubbish in the area. Their lobbying ultimately led to the weirs’ registration by the New Zealand Historic Places Trust as an archaeological site in 2001, (M36/157).

There is a letter on the Heritage NZ file acknowledging receipt of a proposal for registration of the weirs by NZ Historic Places Trust dated the 22nd September, 2003. The registration nomination report discusses the upper weir only and refers to it as an “agricultural, horticultural weir”.¹³ The incomplete registration proposal was dated the 11th November, 2002.¹⁴ This registration proposal raised concerns about planting proposals encroaching on the weirs and their setting.

Subsequently, the Diamond Harbour Historical Association and volunteers undertook vegetation clearance around the weirs in 2002- 03 and more latterly the Diamond Harbour Community Association has repeated the vegetation clearance in conjunction with a native planting programme on the gully slopes either side of the weirs, catchment pond remnants and the dry stream bed. The removal of the growth on the upper weir exposed the stone construction.



Source: HNZPT file 12009-992
Community clearance of trees and growth on the upper weir in 2003. The weir is now cleared of tree growth.

The community have identified the weirs and their setting as a place of interest and community awareness, and the upper weir is featured in an historical walk information brochure. The brochure states *...“This stone weir, the upper of two, was built across the gully below Godley House to provide water for stock and visitor’s horses. A track on top gave access across from the road which wound around the present settlement. It was restored by the Historical Association in 2002.”*¹⁵

¹² Mary Stapylton-Smith. Adderley to Bradley, A History of the Southern Bays of Lyttelton Harbour. P 93.

¹³ Heritage NZ file 12009-992, letter dated 22.09.2003.

¹⁴ Heritage NZ file 12009-992, registration proposal.

¹⁵ *Diamond Harbour Historic Walk* information brochure.

2.2 People Associated with the Stoddart Weirs

Mark Stoddart

Mark Stoddart was a prominent early Canterbury settler. He was the youngest son of Admiral Stoddart of Edinburgh and was born and educated in that city. Stoddart trained at a military academy before immigrating to Australia in 1837 where he farmed livestock at Lamplough Station in the Glen Nona district of the Victorian Pyrenees in Victoria. In 1850, after noting the effects of the Australian drought, Stoddart decided to sell up and join his friend E, M Templer who had already chartered a ship, "*The Australasia*", and was ready with 2,000 sheep to sail for New Zealand. Stoddart also took sheep on board the German-manned vessel. The two men arrived in Lyttelton in January 1851 while the First Four Ships were still at anchor bringing with them not only sheep, but also the expertise necessary to farm them.

Stoddart first settled on the Terrace Station on the Rakaia River in Canterbury where the homestead sited below the top of the terrace was said to be one of the windiest places in Canterbury. Stoddart did not stay there long. He sold out to Sir John Hall in 1853. Negotiations to farm in a partnership on land in the area he named Glenmark did not work out successfully and three years later he became sole owner of about five hundred acres on Banks Peninsula at a bay on Lyttelton Harbour first known as Stoddart's Bay and later renamed by Stoddart as Diamond Harbour. This property was managed for some years by Stoddart's cousin, Mark Sprot, and in 1858 it produced the first crop of Lucerne in Canterbury, if not New Zealand.

By 1861 Stoddart had taken up residence on the land, and during a stock-buying trip to Australia bought the cottage (Stoddart Cottage) that was assembled in time for his wedding in February 1862 to Anna Barbara Schjott (1835-1911), the daughter of a Norwegian clergyman.

Stoddart had a keen interest in native flora and fauna, and when he reluctantly agreed to serve on the Provincial Council (1863-5) he was particularly concerned with acclimatisation and the conservation of the natural environment. Together Stoddart and his wife had seven children, six of which survived infancy, and their second daughter Margaret (1865-1934) became one of New Zealand's leading painters.

The family lived at Diamond Harbour until 1877, at which time the property was sold to Harvey Hawkins and the Stoddart family went to Scotland for several years. Returning in about 1880, Mark Stoddart bought a house, Lismore Lodge, in Fendalton, Christchurch and died there in 1885.



Source: Canterbury Museum
Mark Stoddart

3. UNDERSTANDING THE PLACE – PHYSICAL EVIDENCE

3.1 Location and Description of the Setting

The Stoddart weirs are located on the Stoddart Point Reserve. Stoddart Point Reserve is located on a northerly projecting headland known as Stoddart Point. The headland projects into Lyttelton Harbour with Diamond Harbour to the west and Purau Bay to the east. Much of the reserve is covered with pine trees and scrub with some open grassed areas. The weirs are located in a gully below the cemetery and the site of the now demolished Godley House. The setting is down the gully from Stoddart Cottage. The setting has been extensively altered since the weirs were constructed and in use. The gully was filled in and levelled to create playing fields c1913, and native scrub and bush has encroached on the weirs. The upper weir was cleared in 2003, but the lower weir remains engulfed.

The north bank and hillside above the upper weir has been terraced and the east bank of the weirs catchment ponds is being planted with native shrub and tree plantings. Marsh grasses have planted in the bottom of the catchment ponds and water course.



Source: T Ussher April 2017.
Looking towards the weirs across the playing fields. The weirs are over the brow of the levelled fields in the gully below.



Source: T Ussher April 2017.
The upper weir with the terrace below the cemetery beyond.

Stoddart Weirs Architectural Conservation & Management Plan



Source: T Ussher April 2017.
The upper weir. New trees have been planted along the banks of the catchment pond area.



Source: T Ussher April 2017.
The upper weir with the breach on the far, north side visible.



Source: T Ussher April 2017.
Looking towards the lower weir which is in the trees beyond the flax bushes.

3.2 The Stoddart Weirs: Construction

The upper is of stacked and battered stone construction using local volcanic rock from the locale. The weir is approximately 15 metres long, 1.5 - 2 metres high and 1.5 metres wide across its top. A farm cart track ran across the top of the weir.

Below the upper stone weir is a smaller weir built of earth and stone. It is approximately 12 metres long and 1.2 metres high with battered earth banks held by embedded stone.

The lower earth and stone weir is in poor repair and the upper stone weir is the better surviving of the two. The upper weir was breached at its north end c1945 with a 2metre wide gap, but the remainder of the weir is intact, currently covered in weeds and grasses. The lower weir is overgrown with encroaching native bushes and scrubby weeds. The stumps and roots of large trees growing out of the weir have caused significant damage to it. Erosion and siltation have added to the difficulty of interpreting this weir.

Photographs c1890 of the upper weir show the catchment pond water level being below the top of the weir.

3.3 Comparative Analysis

The weirs provide technological and historical interpretation of the Stoddart's farm stock water supply. The weirs are of simple artisan construction and the upper weir, being constructed from stone, is unusual construction in New Zealand and is possibly reflective of Stoddart's Scottish roots and the availability of stone in the locale. The upper weir wall appears to have been bonded with clay rather than mortar, but further investigation would be required to confirm this. The lower weir appears to have been of cruder construction with the weir being more a battered earth wall mounded around or stabilised by stones and boulders in its core. These stones do not appear to have been stacked or coursed. Likewise, further invasive investigation would be required to confirm the construction of the lower weir.

Similar Historic Values

Other local stone weirs are seen at the Antigua Boatsheds on the Avon River which is a weir where the water flows over the top and is a dam to raise the water level in the river rather than to form a collection pond. This weir was extensively reconstructed c2007 and the height increased. The weir is not included in the HNZPT listing of the boatsheds.

Another local example on the Avon River is the Mona Vale weir, a double weir in concrete construction. This weir replaces an earlier timber weir.

There are several examples of construction using locally sourced stone to hand from the early settlement period in Lyttelton harbour including Manson's shepherd's cottage at Orton Bradley Park, dating from 1848 and the hut at Garlick's quarry in Allandale, (now a ruin). St Cuthbert's Anglican Church at Governors Bay was built in 1860 using stones gathered from the beach. (HNZPT, Category 1).

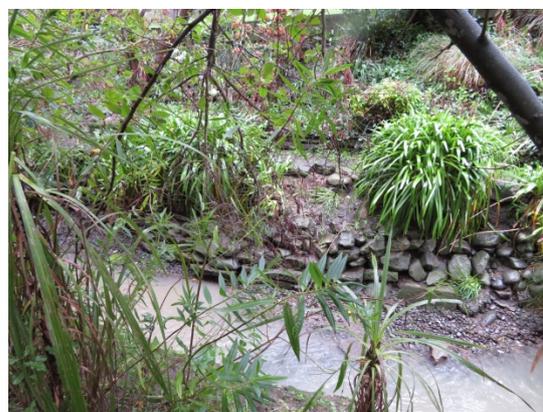
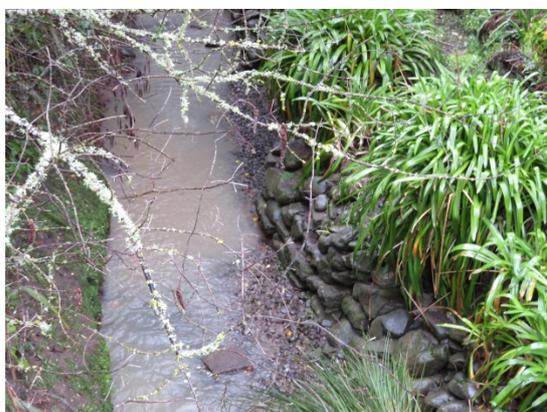
Nationally, HNZPT have several weirs and dams included on their list of protected heritage places, but all these are substantial concrete structures dating from the late 19th century and early 20th century. These are for water reservoirs for public water supplies, for water mill operation and for hydro-electricity generation. Examples include the Upper Karori Dam, (HNZPT Category 2), Lower Karori Dam, (HNZPT Category 1) and the Fernyhaugh Flour Mill, (HNZPT Category 2).

Industrial sites that provide interpretation and evidence of pioneering industry include the Waihi Gold Dredging Plant and Tramway. Dating from the late 1800s, it was an industrial mining operation using tramways, tunnels and water power to extract and operate the ore extraction plant. It is included in the HNZPT list as an Historic Area.

The Big River Quartz Mine at Inangahua Valley, Reefton, which is listed by HNZPT as a Category 1 place, is another example of industrial structures dating from the 1880s –'90s.

The HNZPT list does not include similar agricultural weirs using materials available to hand constructed by local artisans and labour as a vernacular response to the provision of an agricultural stock water supply. Surviving weirs and dams identified on the HNZPT list are robust engineer designed structures.

However, other agricultural structures using similar construction and technologies that are reflective of a technological vernacular response using materials to hand to solve a practical issue have been considered to provide context to determining the significance of the weirs. A relevant example is the Cashmere Stream and the Cashmere Valley and Ballantine's drains system in the suburb of Cashmere in Christchurch. These open drains were constructed for agricultural purposes to drain swampy land to convert the land to productive use. The drains used locally quarried stone to stabilise their sides. Like the weirs, they were devised by a prominent settler, Sir John Cracroft Wilson, who with his two neighbours, Charles Bowen and HF Cridland, obtained approval for the drainage works that were constructed in 1863. The parallels to the weirs are obvious with both works being for agricultural purposes that modified the landscape, were constructed by prominent settlers and that used similar construction technologies using locally sourced materials. The drains are included on the HNZPT list, reference 7482 as a listed Historic Area. The similarity of heritage value of the weirs and the drains, and their respective rarity values, implies that the weirs and drains have similar cultural heritage significance.



Source: T Ussher, September 2017

The Cashmere drains constructed with locally sourced stone walling to the sides by prominent early settler and farmer, Sir John Cracroft Wilson.

Degree of Integrity and Legibility

The upper weir retains clear evidence of its original construction and form. It has been breached at its north end destroying the track that ran across the top of the weir. The weir has high integrity and legibility value.

The lower weir has been engulfed in vegetation and the tree roots and stumps from removed trees remain. The constructional integrity and legibility of the weir in its current condition and environment is compromised.

Degree of Authenticity

Whilst there are other surviving examples of weir and dam construction from the 19th century in New Zealand, these tend to be engineered concrete structures. The upper weir using stone construction is the only known local example of a weir using stone that was constructed for agricultural or horticultural use. The use of locally sourced materials may reflect the relative isolation of the site at the time and the availability of materials from other sources in the early settlement period, and may reflect the use of typical construction that Stoddart was familiar with from his native Scotland. The upper weir particularly has rarity value as a consequence, and the weirs are believed to be among approximately ten surviving examples in the country.

3.4 Chronological Summary of Events

1830s	Sealers and whalers operated from banks Peninsula bays.
1840s	The first pre-adamite settlers farm in Lyttelton harbour at Purau and Teddington.
December 1850	The first settlers of the Canterbury Association arrived in Lyttelton.
1852	Mark Stoddart purchases land for a farm that he names Diamond Harbour.
1862	The upper weir is constructed. There are no dates recorded of the construction of the lower weir.
1876	Harvey Hawkins purchases the Diamond Harbour estate.
1885	Mark Stoddart dies.
1894	Harvey Hawkins is declared bankrupt.
1897	The ownership of the Diamond Harbour estate reverts to Mark Stoddart's widow, Anne.
1913	In February 1913, the Lyttelton Borough Council purchases 356 acres of Stoddart Point as a reserve.
C1913	The playing fields are believed to have been established between Stoddart Cottage and the upper weir removing the water supply.
C1945	A breach was formed in the north end of the stone upper weir.
1995	Residents lobby for protection of the weirs through the Banks Peninsula District Plan.
2001	The weirs are recorded as an Archaeological site by the NZHPT, NZAA reference M36/157.
2003	Community groups and volunteers clear vegetation from the weirs.
2013	The "Stoddart Point Reserve and Coastal Cliff Network, Diamond Harbour Te Waipapa Management Plan 2013" is prepared.
2016	The "Stoddart Point Reserve: An Archaeological Assessment" is prepared by Underground Overground Archaeology that includes the weirs.
2016	"Stoddart Point Reserve Landscape History and Conservation Report" prepared by Louise Beaumont that includes the weirs.
2017	This Architectural Conservation & Management Plan is commissioned by the Christchurch City Council Parks Unit

4. ASSESSMENT OF SIGNIFICANCE

4.1 Assessment of Cultural Heritage Significance – Assessments by Others

In this section, the significance of the weirs is assessed including the assessments contained in the *Landscape Report*¹⁶ and *Archaeological Assessment*¹⁷. The significance of the weirs arising from these reports is included in the overall significance of the weirs expressed as a Summary Statement of Significance contained in Section 4.4.

4.1.1 Stoddart Point Reserve Landscape History and Conservation Report¹⁸

Section 4.2.1 of the report, *Heritage significance Assessment*, describes the cultural heritage significance of the Stoddart Point Reserve. The weirs are described as having *Historical and Social Significance*, *Technological and Craftsmanship Significance* and *Archaeological or Scientific Significance*.

Degrees of significance value are not determined.

4.1.2 Stoddart Reserve: An Archaeological Assessment¹⁹

M36/157: stone weirs

*The **condition** of the site is moderate. The upper weir is relatively intact and clear of vegetation. Although the weir was breached some time during the early 20th century, the stones that were removed remain in the vicinity of the weir. The removal of the vegetation that was undertaken in 2002 does not appear to have impacted the condition of the weir. The current condition of the lower weir cannot be assessed but the overgrowth of vegetation will likely impact the condition in the long term.*

*The **context** of the site is high. The weirs form part of a relatively intact, although not pristine, archaeological landscape. The site's context is significant because of its association with other sites in the vicinity, particularly Stoddart Cottage to the south and the remains of Godley House, to the west. Further development or subdivision of Stoddart Point would negatively impact the contextual value of the site.*

*The **rarity** of the site is high. Only ten stone weirs are known to remain in New Zealand. It could not be determined if any such structures remained on Banks Peninsula or the wider Canterbury region.*

*The **information potential** of the site is moderate. Archaeological recording could shed light on the method of construction, the materials used and the source of those materials. It is unlikely that there are further archaeological features associated with the weirs.*

*The site may have **cultural associations** for the descendants of the Stoddart family.*

*The **amenity value** of the site is high. The site is located within a public reserve and, with the addition of appropriate interpretive panels, has the potential to form part of a permanent heritage trail or historic precinct. This site tells part of the story of the earliest settlers in Diamond Harbour.*

Overall, this site is of medium-high archaeological value, due to its context, rarity, information potential, cultural associations and its amenity values.

¹⁶ Louise Beaumont, Stoddart Point Reserve Landscape History and Conservation Report, June 2016

¹⁷ Underground Overground Archaeology, Stoddart Reserve: An Archaeological Assessment, January 2016

¹⁸ Louise Beaumont, Stoddart Point Reserve Landscape History and Conservation Report, June 2016 P90 – P93,

¹⁹ Underground Overground Archaeology, Stoddart Reserve: An Archaeological Assessment, January 2016. P 17.

4.2 Assessment and Summary of Cultural Heritage Significance

4.2.1 Assessment Criteria

In any historic building or place, the fabric and various elements of which the place is comprised have their own intrinsic heritage value and the contribution they make the cultural significance of the place can be assessed. In addition, the significance of the building or place as a whole can be assessed and given an overall rating of significance.

4.2.2 Criteria for Assessment: Definitions and Headings

There is a range of possible criteria to assess heritage values once sufficient information is gathered about a place. These include those in the Heritage NZ Act 2014 and criteria used by local authorities. The criteria for assessment of significance for this plan are those included in the Christchurch District Plan and are as follows:

- **Historical and Social Significance**
Historical and social values that demonstrate or are associated with: a particular person, group, organisation, institution, event, phase or activity; the continuity and/or change of a phase or activity; social, historical, traditional, economic, political or other patterns.
- **Cultural and Spiritual Significance**
Cultural and spiritual values that demonstrate or are associated with the distinctive characteristics of a way of life, philosophy, tradition, religion, or other belief, including: the symbolic or commemorative value of the place; significance to Tangata Whenua; and/or associations with an identifiable group and esteemed by this group for its cultural values.
- **Architectural and Aesthetic Significance**
Architectural and aesthetic values that demonstrate or are associated with: a particular style, period or designer, design values, form, scale, colour, texture and material of the place.
- **Technological and Craftsmanship Significance**
Technological and craftsmanship values that demonstrate or are associated with: the nature and use of materials, finishes and/or technological or constructional methods which were innovative, or of notable quality for the period.
- **Contextual Significance**
Contextual values that demonstrate or are associated with: a relationship to the environment (constructed and natural), a landscape, setting, group, precinct or streetscape; a degree of consistency in terms of type, scale, form, materials, texture, colour, style and/or detail; recognised landmarks and landscape which are recognised and contribute to the unique identity of the environment.
- **Archaeological or Scientific Significance**
Archaeological or scientific values that demonstrate or are associated with: the potential to provide information through physical or scientific evidence an understanding about social historical, cultural, spiritual, technological or other values of past events, activities, structures or people.
- **Overall Assessed Heritage Value**
This is the overall Cultural Heritage value or significance of the element or space based on the significance assessments above.

The fabric, spaces and elements of the place have been assessed using the above criteria. The significance ratings determined establish the degree of alteration or intervention that is appropriate to the place.

4.3 Degrees of Significance

The implementation of Conservation Policy requires an examination of the fabric and an interpretation of the significance statements and descriptive comments. The significance rating of the element or fabric provides guidance to the extent to which it may be adapted, the degree of intervention permissible and determines how changes should or should not occur. Further detailed analysis may be required of specific items where these could be affected by potential work and that are currently assessed in part of a broader general assessment only. The decision to allow changes and the extent to which changes are allowed depends on the heritage significance defined as follows:

- **High – Elements and Spaces of High Significance.**
Fabric in this category is considered to make a fundamental and essential contribution to the overall significance of the place and should be retained. It takes into account factors such as its age and origin, material condition and associational and aesthetic values.
- **Considerable – Elements and Spaces of Considerable Significance.**
Fabric that makes an important contribution to the overall significance of the place and should be retained where possible and practicable. This fabric makes an important contribution to the understanding of the heritage values of the place.
- **Some – Elements and Spaces having Some Significance.**
Fabric having some significance that makes a contribution to overall significance and understanding of the heritage values of the place.
- **Little – Elements or Spaces of Little or No Significance.**
The element is of little or no significance and adaptation involving the removal of the element would not result in any loss of significance they possess or contribute to the overall heritage value.
- **Non-contributory - Elements or Spaces of No Heritage Significance Value.**
Fabric in this category may not have any particular heritage significance, however it allows the building to function and be used. It may include new fabric that conceals or obscures the significance of the place or its parts.
- **Intrusive – Elements or Spaces which are detrimental to heritage values.**
Elements or spaces which are intrusive and reduce the overall significance of the place.
- **Not Evaluated – Elements or Spaces the value of which has not been evaluated.**
It may indicate that the element or space has not been adequately considered because of particular circumstances at the time of assessment or that its value is not determinable, it being concealed by other fabric when the assessment was made.

4.3.1 Heritage Inventory & Tabulation of Cultural Heritage Value

UPPER WEIR	DESCRIPTION, COMMENT & HERITAGE VALUE RATING	ASSESSED HERITAGE VALUE
Description	<p>The upper is of stacked and battered stone construction using local volcanic rock from the locale. The weir is approximately 15 metres long, 1.5 - 2 metres high and 1.5 metres wide across its top. A farm cart track ran across the top of the weir.</p> <p>The weir was broached at one end forming a gap removing the path that ran across the top of the weir.</p> <p>The weir is currently covered in weed grasses. Indigenous tree and shrub planting is encroaching on the sides of the weirs and catchment pond.</p> <p>The weir is one of two that together are part of the context and setting.</p>	
Significant Elements and Assessed Heritage Value of the upper weir	<p>The weir was constructed by an influential and well known early settler in Lyttelton Harbour.</p> <p>Form and stone construction of the weir.</p> <p>Catchment pond's remaining form and evidence.</p> <p>Open grassland setting.</p> <p>Remaining evidence of the track on the top of the weir.</p>	<p>High</p> <p>High</p> <p>Considerable</p> <p>Considerable</p> <p>Considerable</p>
Elements that reduce the Cultural Heritage Value of the upper weir	<p>Grasses covering and obscuring the weir's stone construction.</p> <p>Encroaching planting at the sides of the weir and catchment pond reducing the evidence of the weir's original agricultural, open pasture setting.</p> <p>The broached gap at the west end of the weir.</p>	<p>Intrusive</p> <p>Intrusive</p> <p>Intrusive</p>
Overall Assessed Heritage Value of the upper weir	<p>The upper weir and catchment pond has considerable Contextual value being a rare example of a vernacular stone agricultural weir remaining in an open landscape setting providing evidence of its original form and purpose and response to its environment and context. The Contextual value is enhanced by the proximity of the lower weir and the grouping of the two contributes to their rarity value.</p> <p>The weir has high Historical value providing evidence of an early colonial agricultural practice using available resources.</p> <p>The weir has high Social and Associational value being associated with an early significant settler in Lyttelton Harbour.</p> <p>The weir has high Architectural and Technological value being a rare surviving example regionally and nationally of a stacked stone weir.</p> <p>The form and fabric of the upper weir is assessed as having considerable Overall Cultural Heritage value, excluding the interventions as noted.</p>	

LOWER WEIR	DESCRIPTION, COMMENT & HERITAGE VALUE RATING	ASSESSED HERITAGE VALUE
Description	<p>The weir is one of two that together are part of the context and setting.</p> <p>The lower weir is a smaller weir built of earth and stone. It is approximately 12 metres long and 1.2 metres high with battered earth banks held by embedded stone.</p> <p>The weir is in poor repair and is overgrown with encroaching native bushes and scrubby weeds. The stumps and roots of large trees growing out of the weir have caused significant damage. Erosion and siltation have added to the difficulty of interpreting this weir.</p>	
Significant Elements and Assessed Heritage Value of the upper weir	<p>The weir was constructed by an influential and well known early settler in Lyttelton Harbour.</p> <p>Eroded form and construction of the weir.</p> <p>Catchment pond's remaining form and evidence.</p>	<p>High</p> <p>Some</p> <p>Considerable</p>
Elements that reduce the Cultural Heritage Value of the upper weir	<p>The open grassland setting of the lower weir is now concealed by large trees and overgrowth engulfing the weir and the creek bed below the weir.</p> <p>Tree stumps embedded in the weir compromise its stability and constructional integrity.</p> <p>Flaxes planted across the catchment pond.</p> <p>New indigenous planting encroaching on the sides of the catchment pond and the grassland setting.</p>	<p>Intrusive</p> <p>Intrusive</p> <p>Intrusive</p> <p>Intrusive</p>
Overall Assessed Heritage Value of the upper weir	<p>The lower weir and catchment pond has considerable Contextual value being part of the entire grouping of the two weirs in their original relationship and setting contributing to their rarity value.</p> <p>The weir has considerable Historical value providing evidence of an early colonial agricultural practice using available resources.</p> <p>The weir has high Social and Associational value being associated with an early significant settler in Lyttelton Harbour.</p> <p>The weir has some Architectural and Technological value being a surviving example of an early colonial era earth and stone weir.</p> <p>The form and fabric of the upper weir is assessed as having considerable Overall Cultural Heritage value, excluding the interventions as noted.</p>	

4.4 Summary Statements of Significance

The determination of the significance of the Stoddart weirs and their setting is of importance in the preparation of this plan. The purpose of determining the significance is to enable decisions to be made on the conservation and maintenance of the weirs that are based on a sound and balanced appreciation of their significance. The significance of the weirs is evaluated under a number of categories; historical and social, cultural and spiritual, architectural and aesthetics, technological and craftsmanship, contextual, and archaeological significance.

The overall heritage significance of the place is determined from consideration of all these categories and their weighting individually, and not by the average of them. For example, an area of a place may have considerable architectural significance and exceptional cultural significance due to the connection with an important person. The overall heritage significance in this case may be that that part of the place has exceptional overall heritage significance.

Historical and Social Significance

The upper weir has high historical and social significance as the only known local example of a 19th century stone weir constructed for agricultural and horticultural purposes. It is believed to be one of only ten in New Zealand.

The Stoddart weirs have high associational significance being associated with Mark Stoddart, a pioneering farmer who was important in the settlement of Lyttelton Harbour and the history of Diamond Harbour, which is named after the farm he established.

Architectural and Aesthetic Significance, Technological and Craftsmanship Significance

The Stoddart weirs have considerable architectural and aesthetic significance being a vernacular response to construction using locally to hand materials. The upper weir has high technological and craftsmanship significance being a rare example of a well-constructed stone weir.

The weirs have considerable technological significance providing interpretation of how farming processes responded to local environmental needs.

Contextual Significance

The Stoddart weirs including the gully, water course remains and catchment ponds have considerable contextual significance, being an example of a landscape and setting transformed to the needs of early colonial settlement and farming.

Archaeological or Scientific Significance

The Stoddart weirs are a significant relic of a colonial past in a transformed landscape.

The NZAA M36/157 Archaeological Assessment of the weirs describes them as having high contextual and rarity values, and medium-high overall assessed archaeological value.

Summary Statement of Heritage Significance of the Stoddart Weirs

In considering the above Statements of Significance, the Stoddart weirs are considered to have high overall Cultural Heritage Value, particularly the upper weir for its technological and craftsmanship qualities, but also the two weirs together as a grouping.

PART 2: FRAMEWORK FOR CONSERVATION

5. FRAMEWORK FOR CONSERVATION POLICIES

5.1 Factors affecting the Conservation of the Place

The weirs no longer store water with the water course they dam being infilled to form the Diamond Harbour recreation grounds and playing fields. The weirs and the catchment pond areas behind them are still visible and the water course drains away from the lower weir. The water course and lower weir are now concealed by encroaching planting and the gully sides and terraces between the two weirs are planted with native trees and shrubs. In time the planting will further change the significant historical setting of the weirs in a rural grassland setting that is of relevance for the interpretation of European settlement at Diamond Harbour and the establishment of farming in the harbour environment.

There appears to be conflict between the wishes of some of the Diamond Harbour community who want to return the site to a possible pre-European settlement form with native indigenous bush, and the heritage conservation significance of the weirs as evidence of European colonial settlement and activity.

5.2 Constraints arising from the Statements of Significance

The degree of intervention necessary for the conservation of heritage places may require processes of removal and deconstruction, repair, restoration, reconstruction and alteration in varying degrees where these are consistent with the levels of intervention defined in the ICOMOS NZ Charter 2010, the Florence Charter 1981 and included in Section 5.4.1 of this plan.

5.3 Heritage Protection – Legislation

Current legislation provides measures for the management and development of heritage places and regard to this should include, but not be limited to:

- Resource Management Act 1991 and amendments Acts 2003 and 2004
- Local Government Act 2002
- Heritage New Zealand Pouhere taonga 2014
- Building Act 2004 (although not relevant to the weirs' conservation)
- Reserves Act 1977
- Territorial authority District Plans

5.3.1 Resource Management Act 1991 (RMA)

The Resource Management Act requires councils to have an overarching philosophy and practice for the management of heritage resources, particularly through District Plans. Section 6 of the act states that heritage is a matter of national importance and the act requires local authorities to have District Plans that define heritage, identify heritage places and resources for management, and assess heritage values, archaeological and historic sites, incentives, regulatory controls and mapping.

Part ii, Purpose & Principles of the Act, Section 5 – Purpose states: “the purpose of this Act is to promote the sustainable management of natural and physical resources.” In this act “sustainable management” means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety.

The 2003 Resource Management Act amendments elevated historic heritage to a matter of national importance: Section 6 states: “... Shall recognise and provide for the following matters of national importance” and “(f) the protection of historic heritage from inappropriate subdivision, use and development”.

Those amendments also introduced a definition of historic heritage under the Act, being: “... those natural and physical resources that contribute to an understanding and appreciation of New Zealand’s history and cultures, deriving from any of the following qualities:

Archaeological, architectural, cultural, historic, scientific, technological; and includes historic sites, structures, places and areas; and archaeological sites; and sites of significance to Maori, including wahi tapu and surroundings associated with the natural and physical resources.”

Specifically, relevant sections of the Act are:

Section 5 of the RMA defines that the purpose of the Resource Management Act is to:

1...promote the sustainable management of natural and physical resources

2...sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while:

Sustaining the potential of natural and physical resources (excluding minerals to meet the reasonably foreseeable need of future generations; and

Safeguarding the life-supporting capacity of air, water, soil and ecosystems;

Avoiding, remedying or mitigating any adverse effects on the environment

Section 6 outlines matters of national importance noting that in achieving the purposes of the Act all persons must recognize and provide for:

(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga

(f) The protection of historic heritage from inappropriate subdivision, use and development. (2003 amendment)

Section 7 outlines other matters in achieving the purpose of the Act. Of particular note in relation to heritage in section 7 are:

(e) recognition and protection of heritage values, sites, buildings, places or areas

(f) maintenance and enhancement of the quality of the environment

(g) any finite characteristics of natural and physical resources

Other sections of the Act of particular note are:

- **S32** – Duties to consider alternatives, assess benefits and costs
- **S88** – Application for Resource Consents
- **S104, 105** – decision making – matters to be considered
- **Fourth Schedule** – assessment of effects on the environment

Under **Section 93** of the RMA, where the place is listed by Heritage NZ and there is a proposal for any alterations to the place or setting, Heritage NZ must be advised and their comment sought and if the application should be publicly notified. The weirs are not included on the Heritage NZ list but they are a designated archaeological site and therefore consultation with Heritage NZ is required for any work.

These responsibilities are administered through District Plan provisions and, where appropriate, the requirement for resource consents for work that may adversely affect built heritage. The *Christchurch District Plan* defines the activities that are Permitted Activities, Controlled Activities, Discretionary Activities and Non-complying Activities. Refer to *Section 9.3.6 Heritage Protection – District Plan Regulations* for the definitions of the Activities.

5.3.2 Local Government Act 2002

The Local Government Act sets out what councils are required to do to fulfil the Crown's responsibilities under the Treaty of Waitangi. It also provides opportunities for Māori to contribute to decision-making processes. Under the provisions of this act, significant decisions in relation to land or a body of water must take into account the relationship of Māori and their culture and traditions with their ancestral land, water, sites, wāhi tapu, valued flora and fauna and other taonga.

5.3.3 Heritage New Zealand Pouhere Taonga Act 2014

The Act is administered by Heritage New Zealand Pouhere Taonga (Heritage NZ). Section 4 of the Act states the HNZPT's purpose as being – '*to promote the identification, protection, preservation and conservation of the historical and cultural heritage of New Zealand.*'

Functions of the act which have relevance to Stoddart Point Reserve include:

- (a) to identify, record, investigate, assess, list, protect, and conserve historic places, historic areas, wāhi tūpuna, wāhi tapu, and wāhi tapu areas or enter such places and areas on the New Zealand Heritage List/Rārangi Kōrero, or to assist in doing those things, keeping permanent records of that work, and providing support for persons with a legal or equitable interest in such places and areas:

- (e) to issue authorities in accordance with this Act

- (i) to act as a heritage protection authority under Part 8 of the Resource Management Act 1991 for the purposes of protecting—
 - (i) the whole or part of a historic place, historic area, wāhi tūpuna, wāhi tapu, or wahi tapu area;
 - (ii) land surrounding the historic place, historic area, wāhi tūpuna, wāhi tapu, or wahi tapu area that is reasonably necessary to ensure the protection and reasonable enjoyment of the historic place, historic area, wāhi tūpuna, wāhi tapu, or wāhi tapu area.

Stoddart Cottage, the Godley House pre-1900 foundations, the Stoddart Weirs and 6 other sites as noted in the *Stoddart Point Reserve: An Archaeological Assessment* are registered archaeological sites. Any proposed earthworks associated with any of these sites will require an archaeological authority from Heritage New Zealand.

The weirs are not included in the Heritage New Zealand Pouhere Taonga (HNZPT) List as an Historic Place, although there is an incomplete registration proposal for the weirs.

In addition, Stoddart Cottage and setting is listed as a Category 1 Historic Place, registered in 1990. While registration does not provide the place with any inherent protection, it does mean that under Section 39 of the Building Act 2004 the territorial authority must advise Heritage New Zealand of an application for a building consent that affects a heritage place. The cottage and its setting is remote from the weirs and would not be affected by any work to the weirs.

5.3.4 Building Act 2004

The requirements of the Building Act are not applicable unless any approved proposed work includes activities included in the NZ Building Code and requiring a Building Consent or Building Consent Exemption.

5.3.5 Reserves Act 1977

The requirements of the Reserves Act 1977 are quoted below from the *Stoddart Point Reserve Landscape History and Conservation Report*.²⁰

²⁰ Louise Beaumont. Stoddart Point Reserve Landscape History and Conservation Report. P 99.

The Reserves Act 1977 is administered by the New Zealand Department of Conservation. The act's function is to provide for the preservation and management, for the benefit and enjoyment of the public, of areas possessing some special feature or values such as recreational use, wildlife, landscape amenity or scenic value. The act also provides for the acquisition of land for reserves, and the classification and management of reserves. The reserve areas in Stoddart Point Reserve are classified as Recreation, Historic and Local purpose (Community building) reserves, as shown in the table in Section 1.6.

A recreation reserve is to be managed as outlined in the Reserves Act 1977, section 17 (1):

"For the purposes of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor activities, including recreational tracks in the countryside".

An historic reserve is to be managed as outlined in the Reserves Act 1977, section 18 (1):

"For the purpose of protecting and preserving in perpetuity such places, objects and natural features, and such things thereon or therein contained as are of historic, archaeological, cultural, educational and other special interest".

A local purpose (community building) reserve is to be managed as outlined in the Reserves Act 1977, section 23 (1): *"For the purpose of providing and retaining areas for such local purpose or purposes, as are specified in any classification of the reserve".*

5.3.6 Christchurch District Plan

The Territorial Authority is the Christchurch City Council.

Under the RMA, the Council is required to recognise and protect the heritage values of sites, buildings, places or areas. The Council administers this through the Christchurch District Plan adopted in 2016. The Council maintains a list of protected buildings, places and objects which are included as part of District Plan, *Appendix 9.3.7.2 "Schedule of Significant Historic Heritage"*. Listed items are scheduled as being *Highly Significant* or *Significant*.

Chapter 9 deals with Natural and Cultural Heritage, while Section 9.3 deals specifically with Historic Heritage. This section recognises the important contribution historic heritage makes to the district's distinctive character and identity, and its role in recovery. This is to be achieved through a number of policies and associated rules. Policies relating to Stoddart Point Reserve and the weirs are:

- 9.3.2.1 Objective – Historic heritage
- 9.3.2.4 Management of scheduled historic heritage
- 9.3.2.5 Archaeological Sites
- 9.3.2.6 Ongoing, Viable Use of Heritage Items and Heritage Settings

However, the Stoddart Weir's are not specifically included in the schedule of historic heritage in the *Schedule of Significant Historic Heritage* and consequently the Heritage rules of Section 9.3 would not apply although other rules may apply.

Policy 9.3.2.4 should be noted, however, as the intent of the policies provide sound guidance for the conservation of the weirs. The Policy states:

- a. Manage the effects of subdivision, use and development on the heritage items, heritage settings and heritage areas scheduled in Appendix 9.3.7.2 and 9.3.7.3 in a way that:
 - i. provides for the ongoing use and adaptive reuse of scheduled historic heritage in a manner that is sensitive to their heritage values while recognising the need for works to be undertaken to accommodate their long term retention, use and sensitive modernisation and the associated engineering and financial factors;

- ii. recognises the need for a flexible approach to heritage management, with particular regard to enabling repairs, heritage investigative and temporary works, heritage upgrade works to meet building code requirements, restoration and reconstruction, in a manner which is sensitive to the heritage values of the scheduled historic heritage; and
 - iii. subject to i. and ii., protects their particular heritage values from inappropriate subdivision, use and development.
- b. Undertake any work on heritage items and heritage settings scheduled in Appendix 9.3.7.2 in accordance with the following principles:
- i. focus any changes to those parts of the heritage items or heritage settings, which have more potential to accommodate change (other than where works are undertaken as a result of damage), recognising that heritage settings and Significant (Group 2) heritage items are potentially capable of accommodating a greater degree of change than Highly Significant (Group 1) heritage items;
 - ii. conserve, and wherever possible enhance, the authenticity and integrity of heritage items and heritage settings, particularly in the case of Highly Significant (Group 1) heritage items and heritage settings;
 - iii. identify, minimise and manage risks or threats to the structural integrity of the heritage item and the heritage values of the heritage item, including from natural hazards;
 - iv. document the material changes to the heritage item and heritage setting;
 - v. be reversible wherever practicable (other than where works are undertaken as a result of damage); and
 - vi. distinguish between new work and existing heritage fabric in a manner that is sensitive to the heritage values.

Christchurch District Plan: Assessment Matters

Although the weirs are not scheduled heritage items, all work to them should follow the same conservation constraints, principles and processes as if they were. Likely activities for the conservation of the weirs include maintenance, repair, partial reconstruction and restoration. These are permitted activities in Section 9.3.4 *Rules - Activity Status Tables*.

Section 9.3.5 Rules - Matters of Control, 9.3.5.1 Heritage Upgrade Works, Reconstruction and Restoration

- a) The form, materials, and methodologies to be used to:
 - (i) maintain heritage values, including integration with, and connection to other parts of the heritage item;
- b) The methodologies to be used to protect the heritage item during heritage upgrade works, reconstruction and restoration;
- c) Documentation of change during the course of works, and on completion of work by such means as photographic recording; and
- d) Whether Heritage New Zealand Pouhere Taonga has been consulted and the outcome of that consultation.

Christchurch District Plan: Ngāi Tahu Values and the Natural Environment

The provisions of the District Plan included below have not been reviewed by Ngai Tahu in the context of the weir's context and setting and their review should be sought.

Section 9.5 **Ngāi Tahu Values and the Natural Environment of the District Plan** contains "...objectives, policies, rules, standards and matters of discretion that are intended to protect Wāhi Tapu / Wāhi Taonga

sites from inappropriate development, and manage the adverse effects of activities on those sites, and other sites of cultural significance including water bodies, waipuna / springs, repo / wetlands, and coastal areas identified as Ngā Wai, and Ngā Tūranga Tūpuna landscapes of Ngāi Tahu cultural significance.”

Ngāi Tahu and the Council’s aim is to “...encourage and facilitate the engagement of landowners and resource consent applicants with the relevant rūnanga prior to undertaking activities and/or applying for resource consent, within or adjacent to identified sites of Ngāi Tahu cultural significance (including silent file areas). Where prior applicant engagement has not been undertaken Council will consult with the relevant rūnanga.”

The site of the weirs is not specifically identified or included in the Christchurch District Plan. However, with reference to Planning Map 95C shows that Stoddart Point is designated as Coastal Environment and also has layers of significance to Maori. Designations include:

Nga Turanga Tupuna, (sites of Ngāi Tahu cultural significance),
ID 70, Purau,

NZAA sites M36/7, 13, 14, 98 and N36/3, 36, 37, 38, 39, 40, 41, 46.

The catchment of Purau has been home Māori for many centuries. Pā sites, kāinga, urupā and a former Māori reserve are located here. Also significant as a mahinga kai.

ID71 Whakaraupo:

Areas of cultural landscapes with large concentrations of significant tribal history and archaeological sites, and prominent natural features that form landmarks.

Ngā Wai - Te Tai o Mahaanui (Christchurch and Banks Peninsula) coast.

Statutory acknowledgment area under the Ngāi Tahu Claims Settlement Act 1998 - Schedule 101: Statutory Acknowledgement for Te Tai O Mahaanui (Selwyn - Banks Peninsula Coastal Marine Area).

Nga Wai Coast ID 78 – Te Ihutai (Avon-Heathcote Estuary)

Statutory acknowledgment area under the Ngāi Tahu Claims Settlement Act 1998 - Schedule 101: Statutory Acknowledgement for Te Tai O Mahaanui (Selwyn - Banks Peninsula Coastal Marine Area).

Nga Wai Coast ID 96

Part of the Te Tai o Mahaanui statutory acknowledgement area and the significant cultural values that fall within it, or lie immediately adjacent to it.

There are no Wahi Tapu/Wahi Taonga designations on Stoddart Point.

Christchurch District Plan: Coastal Environment

Stoddart Point and the site is included in a Coastal Environment zone, NCCE1.0 (Natural Character in the Coast Environment) designated area on Planning Map 59C. The coastal environment provisions of the District Plan contained in Section 9.6 on **Coastal Environments** have relevance to the site.

9.6.2.1.1 Objective - The coastal environment

People and communities are able to provide for their social, economic and cultural wellbeing and their health and safety, while maintaining and protecting the values of the coastal environment, including:

- 1. indigenous biodiversity and the maintenance of the ecological function and habitats;*
- 2. natural features and landscapes;*
- 3. natural character;*
- 4. historic heritage;*
- 5. Ngāi Tahu cultural values;*
- 6. visual quality and amenity; and*
- 7. recreation values.*

9.6.2.1.2 Objective - Access to and along the coast

Public access to and along the Coastal Marine Area is maintained or enhanced by providing access in places and in forms which are compatible with public health and safety, sensitivity of the receiving

environment and protecting the natural, historic and Ngāi Tahu cultural values of the coastal environment.

9.6.2.2.1 Policy - Effects of activities on the coastal environment

Ensure that subdivision, use and development is of a scale, and located, to maintain and protect the values of the coastal environment

Recognise and provide for the operation, maintenance, upgrade and development of strategic infrastructure and utilities that have a technical, locational or functional need to be located in the coastal environment.

9.6.2.2.2 Policy - Access to and along the coast

Maintain existing public access to the Coastal Marine Area and provide additional public access where:

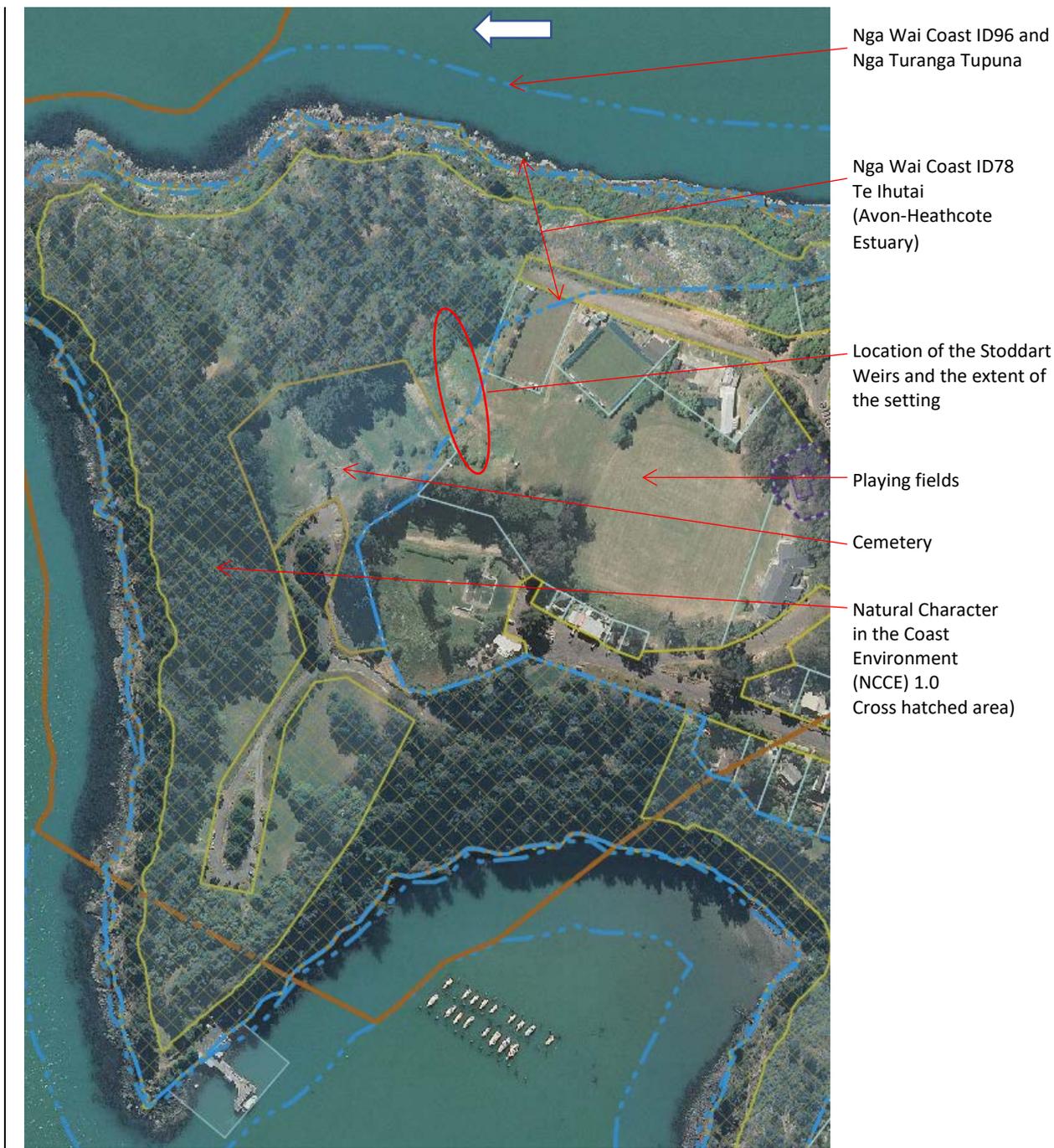
Facilitate access by Ngāi Tahu mana whenua to and along the Coastal Marine Area for mahinga kai and other customary uses.

9.6.2.2.3 Policy - Extent of the coastal environment

Recognise that the landward extent of the coastal environment varies according to the dynamic nature of the values, processes and qualities present.

As a consequence of sections 9.5 and 9.6 of the District Plan, the Christchurch City Council and Ngai Tahu must be consulted on all work proposed to be undertaken to the weirs and setting in regard to the objectives and policies detailed in these sections that arise from the designations.

Stoddart Weirs Architectural Conservation & Management Plan



Source: Christchurch District Plan: Planning Map 59C Natural & Cultural Heritage

5.4 Heritage Protection – Non-Regulatory

Non-regulatory heritage protections that should apply to the weirs and setting are the ICOMOS NZ Charter 2010 and Florence Charter (Historic Gardens) 1981.

The ICOMOS NZ Charter 2010 sets out principles to guide the conservation of places of cultural heritage value in New Zealand.

The Florence Charter (Historic Gardens) provides a definition of the term historic garden and the architectural compositions that constitute the historic landscape. It emphasises the need to identify and list historic gardens, and provides philosophical guidance on maintenance, conservation, restoration and reconstruction of landscape settings.

Whilst the weirs are not listed by HNZPT, there is a proposal for their listing on suspension and on HNZPT files, and the weirs are an archaeological site. Likewise they are not scheduled specifically by the CDP as a site of historic heritage, but they are a part of Stoddart Point which has Coastal Environment and layers of significance to Ngai Tahu. Consequently the importance of the weirs are acknowledged and understood in terms of their past history and current values to the community. To this extent, this plan has been undertaken to guide future works and to protect this important feature.

5.4.1 ICOMOS NZ Charter 2010

The policies and principles of the ICOMOS New Zealand Charter 2010²¹ (ICOMOS Charter) are guiding statements against which all interventions to heritage places needs to be considered to ensure as sound as possible conservation practices are followed in any work undertaken.

The ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value revised in 2010 “...sets out principles to guide the **conservation of places of cultural heritage value** in New Zealand. It is a statement of professional principles for members of ICOMOS New Zealand.

The ...Charter is also intended to guide all those involved in the various aspects of **conservation** work, including owners, guardians, managers, developers, planners, architects, engineers, crafts-people and those in the construction trades, heritage practitioners and advisors, and local and central government authorities. It offers guidance for communities, organisations, and individuals involved with the **conservation and management of cultural heritage places**.

This Charter should be made an integral part of statutory or regulatory heritage management policies or plans, and should provide support for decision makers in statutory or regulatory processes.”²²

Although the ICOMOS Charter has no legal status, it has been adopted by the Christchurch City Council for the conservation of heritage buildings that come under its ownership, care or regulatory control. The ICOMOS Charter thus provides the framework against which remediation, restoration, conservation and alterations need to be assessed to maximise the best possible outcome for the protection of the heritage values of the building. Along with the Conservation Report, Landscape assessments of significance and implementation of policies and the recommendations of this Management Report, the Charter should form the basis of assessment of effects of all work to the weirs and their setting.

5.4.2 Florence Charter 1981

The principles and policies of the Florence Charter 1981 guide the conservation of heritage landscapes and settings and apply to the conservation processes required to the Stoddart Point Reserve and the weirs and their setting. These principles and policies are to be adopted when considering the conservation processes required and include those of protection, stabilisation, repair including partial

²¹ ICOMOS is the *International Charter for the Conservation and Restoration of Monuments and Sites*.

²² ICOMOS New Zealand Charter , Revised 2010, Preamble page 1

reconstruction, restoration, preservation, and maintenance. A full copy of the Florence Charter 1981 is included in the Appendices.

5.5 Aims of the Building Owner

The Stoddart Point Reserve that includes the Stoddart weirs is owned by the Christchurch City Council.

The setting of the weirs includes their catchment ponds and hillside slopes of the gully and the aim is to maintain the historical interpretation of the weirs in an open rural landscape setting. This would require control the encroachment of planting around the weirs, catchment ponds and the water course to maintain the historic modified agricultural setting.

The aims of the Council are to retain as a minimum, the weirs in their current form but in as closely as is reasonably possible, in an open setting. The Council have also expressed an interest in the possibility of the weirs being restored to their working form. Returning the weirs to functional water catchments could include the use of the weirs as part of a storm-water catchment system for Diamond Harbour, the playing fields grounds and the cemetery. Stormwater runoff from the cemetery has already been installed discharging to the lower weir.

This would result in the weirs functioning as they were originally intended. Any proposal implemented for the weirs and setting needs to consider consequences on the integrity of the weirs and their heritage and archaeological values that need to be retained and conserved. Processes required include stabilisation, maintenance, repair, partial reconstruction and restoration and interventions to the weirs need to be assessed before committing to a use and course of action with the interventions being kept to the minimum necessary.

The desires and aims of the community and community groups also need to be discussed, considered and integrated.

5.6 The Stoddart Point Reserve and Coastal Cliff Network, Diamond Harbour/Te Waipapa Management Plan 2013

The *Stoddart Point Reserve Landscape History and Conservation Report* identifies the following as being of relevance to the Stoddart Point Reserve including the weirs:²³

Christchurch City Council, as the administering body of Stoddart Point Reserve is required to ensure that *“where scenic, historic, archaeological, biological, geological, or other scientific features or indigenous flora or fauna or wildlife are present on the reserve, those features ...shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve: provided that any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the Historic Places Act 1992”*.

To achieve this requirement Christchurch City Council has prepared the Stoddart Point Reserve Management Plan 2013 for the reserve which sets out management objectives and policies. The following management goals of that plan that are of particular note are:

3.2 Ecology, flora and fauna

Objective: To manage vegetation in such a way over time, to establish the original indigenous plant communities of the area, and to enhance the habitat for its indigenous fauna, while not compromising the stability of the ground.

Policy 3.2.1: A long term approach shall be taken to remove exotic conifer trees including pines and macrocarpa as they become unsafe, and to replace them with indigenous tree species such as kanuka (as a nurse crop for future native forest plantings), and to remove seedling pine trees to prevent their regeneration and spread. Note: It is intended that objective 3.2 is a long term

²³ Louise Beaumont. Stoddart Point Reserve Landscape History and Conservation Report. June 2016. P 101

objective for the reserves. With the exception of indentified projects in this plan it is not intended to undertake significant removal of exotic conifer trees, including pines and macrocarpa, at any one time, but rather take a long term approach to the removal as the trees become unhealthy, dying or dangerous.

3.10. Cultural heritage values. Places and features of cultural heritage value are protected and acknowledged appropriately.

Applicable policies are:

3.10.1: A conservation report for the heritage sites within Stoddart Point Reserve, including the lower and upper Stoddart Weirs shall be prepared to inform the future management of the heritage values of the sites.

Note: The intention is to reinstate both the lower and upper Stoddart Weirs. Stoddart Cottage has its own conservation plan. Refer objective 3.11.

3.10.4: Settings associated with places and features of heritage value shall be protected. Taking into account the findings and recommendations of the conservation report noted in 3.10.1 and the cultural values report referred to in section 10.6.

Matters arising from section 4 of the Reserve Management Plan are:

4.2 Ecology, flora and fauna *There is a desire to see native vegetation replace the exotics in cliff areas of Stoddart Point Reserve, through the establishment of native plants, removal of exotic plants and allowance of a natural succession. Any shift from the current pine plantation would take years, hence any decision to remove the trees needs to come with a long term commitment.*

4.15 Stoddart Weirs *The Diamond Harbour Historical Association has put forward a preliminary landscape proposal plan to reinstate the upper and lower Stoddart Weirs. The weirs are located to the south of the cemetery in the gully that runs adjacent to the croquet club. The reinstatement of the weirs would add to the historic interest of the reserve.*

There may be aspects of this plan that are at odds with the Stoddart Point Reserve Management Plan 2013. Any recommendations in the Management Plan that should go back for review and further consideration are included in the Implementation of Policy section of this plan, Section 7. It is also noted that the Landscape Conservation Plan is at odds with the Reserve Management Plan where it identifies the pine plantings as having an historic association with the site and not replanting these where removal has allowed significant view shafts. The reserve management plan should be reviewed to consider and incorporate as necessary policy and recommendations arising from the subsequent Landscape Conservation Plan and this plan.

5.7 Christchurch City Council Heritage Conservation Policy, 2007

Under this policy the council is required to prepare conservation plans for all listed heritage buildings, places and object in council ownership, and adopt and promote nationally and internationally accepted conservation principles as set out in the ICOMOS New Zealand Charter.

5.8 Outside Influences & Risks

Influences that affect the integrity of the weirs and their interpretive value are principally from vegetation growth, environmental events such as flooding, and acts vandalism and wilful destruction. These are assessed in Section 7.4 *Risk Management Plan*.

5.9 Condition of the Place

The upper and lower weirs are constructed of natural materials sourced from the locale. The upper weir is of stone construction and is currently covered in coarse grass with the stone construction visible beneath the grass. The weir has an historical breach at one end. The weir originally had a shingled pathway on top which is now eroded with rounded edges of the top of the weir construction.

The lower weir is of earth and stone construction and is in poor repair with tree remains damaging its construction. Vegetation and tree growth significantly conceals this weir.

The catchment ponds are empty and are dry in summer and boggy in winter. They are grassed with coarse pasture grass and recently marsh grasses have been planted. The water course and catchment ponds have been in this state since the slope below Stoddart Cottage and the water course were filled in to form the recreation ground playing fields. In c1913 there is reference to “some levelling of the recreation ground”.²⁴ The hillside slopes to the sides of catchment ponds have been, and continue to be, planted that will further alter the historical setting and interpretation of the weirs.



Source: T Ussher, 4 April 2017

The upper weir seen from above and below the weir. The stone construction of the weir is visible, partially concealed by weed and grass growth. The terraces below the cemetery can be seen.



Source: T Ussher, 4 April 2017

The lower weir is concealed by weed and shrub growth, and remains of substantial trees are rooted into the weir.

²⁴ Mary Stapylton-Smith. Adderley to Bradley, A History of the Southern Bays of Lyttelton Harbour. P 93.

6. CONSERVATION POLICY

Following from the statements of significance and determining statutory requirements, owner's aims and external influences, conservation policies for the conservation of the place can be formulated.

The purpose of the conservation policies set out in this section are to provide a guide to the conservation and care of the weirs in a way that maintains their significance and where possible, reinstates it where interventions have reduced their ability to be interpreted. Such policies are framed to:

- preserve the character and quality of the weirs;
- permit conservation interventions that are compatible with the preservation of the weirs that will retain them as part of the Stoddart Point Reserve providing amenities to the Diamond Harbour community and other users;
- permit conservation interventions for that enables the weirs to retain their historical interpretive value that contributes to the historical evidence of the settlement of Diamond Harbour and the requirements of farming in that environment by colonial settlers;
- provide an approach to deteriorated fabric and its stabilisation, repair, restoration or replacement;
- draw attention to the need for coordination and continuity of conservation decisions affecting the integrity of the weirs.

6.1 Conservation Principles

6.1.1 The conservation principles recommended are consistent with the ICOMOS New Zealand Charter 2010 for Conservation of Places of Cultural Heritage Value, and the Florence Charter (historic Gardens) 1981. The principles include those relevant to the weirs from the *Stoddart Point Reserve Landscape History and Conservation Report* and the *Stoddart Point Reserve: An Archaeological Assessment*. (Refer Appendices for the full copy of the Charters).

Conservation, generally, is the intervention to prolong the life of a place. The intervention must retain the integrity, authenticity and significance value of the place. The range of conservation processes and levels of intervention and interpretation vary according to circumstances. Typically the most appropriate conservation will include one of, or a combination of conservation processes. It should be recognised that conservation treatments should be reversible where technically possible, that the authenticity of cultural value and integrity of heritage fabric should be maintained, and the conservation treatments should be carried out by trained and experienced trades people and conservators.

The following policies are recommended as appropriate to protect the cultural heritage significance of The Stoddart weirs. The various processes to be used in the conservation of the weirs are defined in Section 5.4.1.

6.1.2 The Conservation processes applicable to the setting are guided by the ICOMOS NZ Charter 2010 conservation policies.

6.2 Conservation Policies

General: The conservation policies are designed to inform and guide the conservation of the weirs essential heritage values taking into account practical requirements for use of the Stoddart Point Reserve. The policies include those determined in the *Stoddart Point Reserve Landscape History and Conservation Report* and the *Stoddart Point Reserve: An Archaeological Assessment*.

Policy 1. That all works associated with the conservation of the weirs should be carried out in accordance with the principles of the ICOMOS NZ Charter 2010, the Florence Charter 1981 and as summarised in clause 6.1 above.

Policy 2. That this plan and its policies should be formally adopted by the Christchurch City Council.

Policy 3. That the Christchurch City Council should consider protecting the weirs and setting through their inclusion in the schedule of historic heritage in the District Plan.

Policy 4. That the registration of the weirs and their inclusion on the HNZPT list be considered by HNZPT and the registration process be reactivated.

Policy 5. That should any factors influencing the plan significantly change, that the Plan be reviewed.

5.1 That as international conservation bodies periodically update conservation principles and new materials and practices come into use, the recommendations made in this plan may require modification in the future.

5.2 That new information may be discovered which may affect conservation of the place.

The review period should be at 10 year intervals or following any major event that affects the heritage values of the place.

Policy 6. Retention of significance: Heritage features, elements and fabric should be retained wherever possible as a way of conserving the cultural significance of the Stoddart Point Reserve. Any intervention should be undertaken with regard to the determined significance of individual elements.

That the Statements of Significance set out in this plan should be acknowledged as a basis for overall and detailed planning for the conservation of the fabric of the weirs and setting.

Heritage features, spaces and fabric assessed as;

- That a rating of **High** restricts interventions to preservation (including maintenance and repair), stabilisation, and restoration. However, adaptation may be allowed, but only where it is essential for public safety or where a waiver or dispensation from regulatory requirements is not possible and where no other reasonable option is available. Adaptation must be the minimum possible.
- That a rating of **Considerable** allows processes of preservation (including maintenance and repair), restoration, reconstruction and adaptation. Adaptation is allowable where the use is compatible and ensures the long-term future of the place where there is no appropriate alternative use. In considering adaptation of the place, priority should be given to the retention of heritage fabric, detailing and form of the place, including both to exterior and interior fabric, elements and forms, to the fullest extent possible.
- That a rating of **Some** allows adaptation for the function of a compatible use including processes of conservation, restoration and reconstruction. Intervention that reduces significance may be acceptable where it is necessary for the functioning of a new use, and does not reduce the overall heritage significance of the place.
- That a rating of **Little** allows adaptation involving the removal of the element that would not result in any loss of significance it possesses or contributes to the overall heritage value. If original fabric is to be disturbed it should be recorded and then salvaged and stored for re-use.
- That a rating of **Non-contributory** means that the element and fabric has no cultural heritage value and is considered temporary, allowing the place to function. In the short or longer term they may be altered or removed where heritage value is recovered or improved. The conservation processes applicable are those of deconstruction and removal, reconstruction and restoration.
- That a rating of **Intrusive** means that the element or fabric reduces heritage value and where possible should be removed as soon as practical. The processes are deconstruction and removal.

Policy 7. Remedial work should be carried out as required. Materials should be consistent with the historic fabric and original technologies should be replicated.

Remedial work should retain and preserve as much significant fabric as possible. A regular repair and maintenance regime with appropriate clear management procedures should be established.

Policy 8. That any new work or introduction of new elements within the Stoddart Point Reserve that is in proximity of the weirs or that may have effects on the weirs setting should be carefully planned to protect the significance and physical setting of the weirs.

Introduction of new fabric and elements should be based on an understanding of its effects on the significance of the weirs, including its setting and archaeology.

Policy 9. The archaeological resource of the weirs, their setting and context should be protected and preserved.

Physical remains of past human activity are the primary source of evidence about the substance and evolution of places and the people that made them contributing physical evidence to people's understanding of the past.

Policy 10. That before considering any conservation or maintenance work the weir owner must consult with affected parties, namely the Christchurch City Council Parks Unit and Planners, Heritage NZ, Ngai Tahu and an Archaeological Authority from Heritage NZ needs to be obtained.

Policy 11. That a full and thorough explanation of the heritage value of the weirs should be given to any contractors and advisors carrying out any conservation works. Any work involving the heritage item should be limited to consultants and trades people with proven conservation expertise in their respective fields.

Policy 12. That a Conservation Architect or other Heritage Professional and an Archaeologist be consulted in the planning and execution of conservation and maintenance work.

Policy 13. That all conservation and maintenance work affecting heritage fabric be recorded (including photographically and/or drawn as appropriate), before, during and after completion of the work. This record should be kept with a logbook recording all work undertaken, whom by and when. This builds a resource base for future work as it is required.

Policy 14. That all new work be identifiable to a conservation expert. New fabric should be discretely date stamped stating the name of the building contractor and the date of the work.

PART 3: IMPLEMENTATION OF CONSERVATION POLICIES

7. POLICY IMPLEMENTATION

General recommendations for the conservation of the weirs including processes of stabilisation, preservation, repair and reconstruction, arising from the Statements of Significance and Conservation Policies are described below.

7.1 Use

That the weirs and their setting retain passive amenity purposes only. The currently weirs act as surface water run off catchments and the stormwater drainage from the cemetery stormwater system now discharges to the lower weir. The lower area of the playing fields and hill slopes around the weirs are very wet in winter and the drainage from these wet areas could be directed to the catchment pond areas. The Council as owner, wishes to investigate the use of using the weirs as part of the local stormwater disposal which would refill the weirs catchment ponds. The effects of this proposal on the weirs' current condition and construction, their stability, and on their heritage and archaeological values needs to be determined.

7.2 Interpretation

Should interpretation display be proposed that this be restricted to the approach to the weirs from the pathway leading from the playing fields and be in the form of an inclined low height table.

7.3 Retention of Significance and Protection of Heritage Values

The Archaeological Assessment²⁵ states "*The stone weirs should not be rebuilt or reinstated but any work that is considered necessary for the immediate protection and conservation should be undertaken, in accordance with the conservation plan (this plan). An archaeological assessment should be prepared for this work.*"

In this context, the fabric of the weir should be stabilised, maintained and preserved. Processes of preservation include stabilisation of the heritage fabric and repair. Repair processes should be the minimum necessary to retain the weirs in their current status and prevent further deterioration. Repair of fabric of heritage value where this is necessary for the weirs' preservation is always preferable to its replacement. Any significant fabric that needs to be removed should be recorded and put into storage to allow for the possibility of reinstatement in the future.

7.3.1 Significant fabric should only be replaced with new material where:

- The material is structurally unsound, unstable or presents a hazard.
- The material is deteriorated such that water infiltration into the weirs' construction may adversely affect the integrity of the structure.

7.3.2 That where the weir fabric has decayed the minimum amount of material should be repaired or reconstructed, and be sufficient to stabilise the structures and arrest further deterioration.

7.3.3 That fabric should only be replaced or removed when it is absolutely necessary, for example, if the material is too damaged by physical deterioration or interference so that it cannot be interpreted or is likely to cause consequential damage.

7.3.4 That integrity of original construction, materials and workmanship is respected.

7.3.5 That all repair work should match as carefully as possible in material and construction that of the original weir construction, and all workmanship should utilise appropriate skills and methods. Good conservation requires that where possible matching materials should be used for conservation and repair. The interpretation of the weir's original construction and technology must not be compromised or confused through the introduction of new technologies or construction processes. The emphasis is on the

²⁵ Underground Overground Archaeology, Stoddart Reserve: An Archaeological Assessment, January 2016. P 20.

stabilisation and preservation of the weirs in their existing form and construction.

7.3.6 That any repair that does require reconstruction or restoration processes to any degree should only be undertaken following archaeological approval and under the guidance of a conservation architect and specialist stone mason experienced with stone and earth construction.

7.3.7 Respect for surviving evidence: The weirs should be repaired and maintained in their current existing form, except that removal of damaging vegetation to expose original construction and fabric or to allow the reinstatement, reconstruction or restoration of collapsed or deteriorated existing fabric is permissible but only with the agreement, formal direction and control of an archaeologist and a conservation architect. Before undertaking any tree root clearance from the lower weir an Archaeological Assessment is required.

7.3.8 Minimum Intervention: Any modern interventions to stabilise and maintain the weirs to ensure their preservation should be reversible with minimal removal of original fabric or loss of heritage value. Interventions should be the minimum necessary. Any reconstruction of collapsed or damaged areas should not require further deconstruction and be the minimum possible to reinstate the integrity of the collapsed area.

7.3.9 Interventions that include adaptation and alteration of the weirs and their open setting are to be avoided except where these return the weirs to their earlier known form.

7.3.10 Where the aims of the Council and Community differ, the conservation and management reports should be the guiding documents on which decisions are made with further advice being sought from an independent conservation expert with knowledge and expertise of the heritage object and construction.

7.4 Stoddart Point Reserve and Coastal Cliff Network, Diamond Harbour/Te Waipapa Management Plan

There are points of difference between the recommendations of this plan and the Stoddart Point Reserve Management Plan that require review and further research. These are:

Objective 3.2 Ecology, flora and fauna

Objective: To manage vegetation in such a way over time, to establish the original indigenous plant communities of the area, and to enhance the habitat for its indigenous fauna, while not compromising the stability of the ground.

Policy 3.2.1 *A long term approach shall be taken to remove exotic conifer trees including pines and macrocarpa as they become unsafe, and to replace them with indigenous tree species such as kanuka (as a nurse crop for future native forest plantings), and to remove seedling pine trees to prevent their regeneration and spread.*

This plan identifies the landscape context and historical significance of the modified European agricultural setting of the weirs as established by Mark Stoddart. The reinstatement of this setting is at odds with the introduction of native planting in close proximity to the weirs and their catchment pond areas and agreement on solutions that both protects the heritage values of the weirs and their historical setting, and that enables the reintroduction of the native plantings being implemented is required. This plan sets out some recommendations based around the reintroduction of a pathway across the weirs linking parts of the reserve.

4.2 Ecology, flora and fauna *There is a desire to see native vegetation replace the exotics in cliff areas of Stoddart Point Reserve, through the establishment of native plants, removal of exotic plants and allowance of a natural succession. Any shift from the current pine plantation would take years, hence any decision to remove the trees needs to come with a long term commitment.*

4.15 Stoddart Weirs *The Diamond Harbour Historical Association has put forward a preliminary landscape proposal plan to reinstate the upper and lower Stoddart Weirs. The weirs are located to the*

south of the cemetery in the gully that runs adjacent to the croquet club. The reinstatement of the weirs would add to the historic interest of the reserve.

7.5 Specific Recommendations arising from the Implementation of Policy

7.5.1 Setting

7.5.1.1 The historical context of the weirs and catchment ponds is that of an open rural grassland setting providing an agricultural and stock water supply in farm paddocks. This historical setting should be respected leaving evidence of the weirs' intended purpose.

7.5.1.2 To this end, a detailed landscape plan of the area should be prepared showing the extent of the setting including the weirs, the open grassland and extent to which any planting should be cleared or relocated to allow interpretation of the pastoral context.

7.5.1.3 There is a proposal to place a pathway through this area and the historical society has applied for and are receiving funding to do this. A suggested approximate route for the path that reinstates the track to the top of the upper weir and connecting to the cemetery is shown on the plan that follows this section.

The farm track that is visible in the c1890s photograph should be reinstated as closely as possible to its original location along the south side of the weirs. This appears to be approximately where the current foot track is located. The track from the weir to the cemetery could form the edge to the indigenous plantings being introduced. The track on the north side of the weir to the cemetery would need to follow the terraces that have been formed below the cemetery.

7.5.2 Weirs

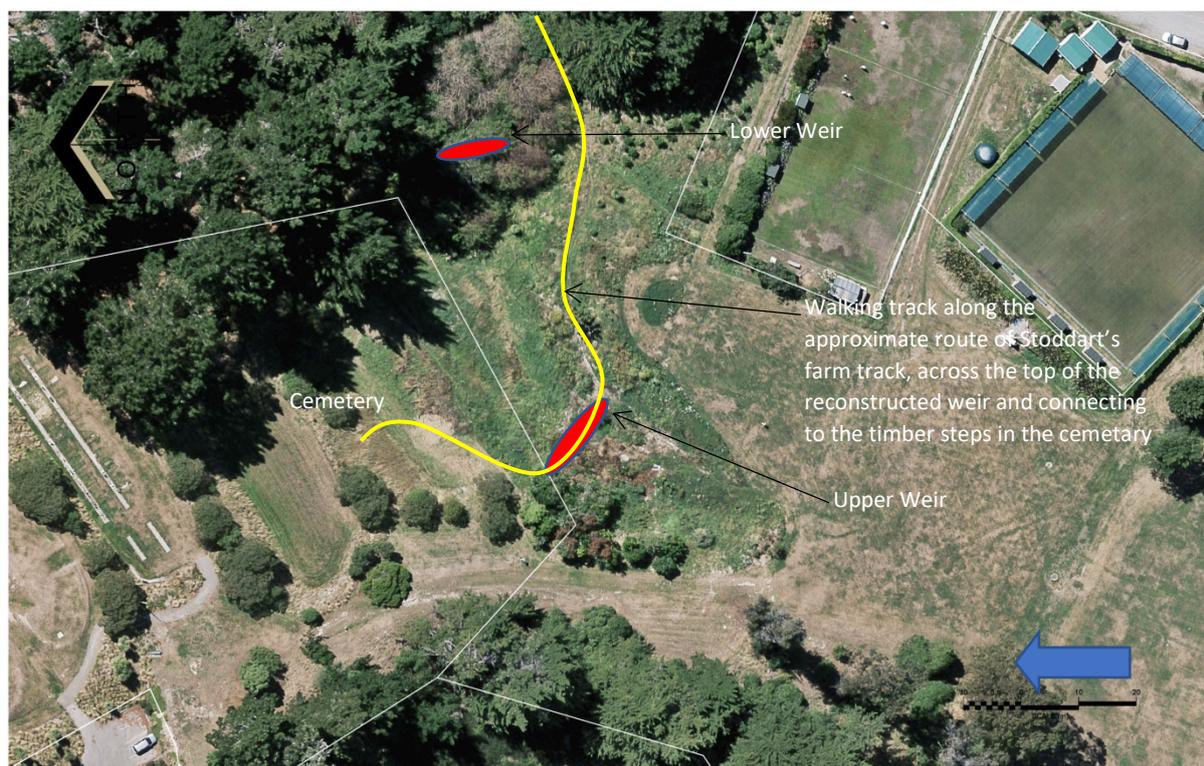
7.5.2.1 The breach in the upper weir should be reconstructed with exposed stone sides, (the removed stones may be scattered adjacent to the gap), and with the restoration of the shingle track to the top of the weir. The emphasis should be on the minimum of work to the remainder of the weir, preserving its current condition and original construction. (A consideration that may affect this proposal requiring resolution would be NZ Building Code requirements for barriers for any drop of more than 1 metre.)

7.5.2.2 That the lower weir be stabilised and conserved as an earth and stone weir in its current partially collapsed state requiring removal of shrub and plant growth from the sides of the weir, catchment pond area and the water course immediately below the weir. Maintenance of grass growth on the weir may aid its stability.

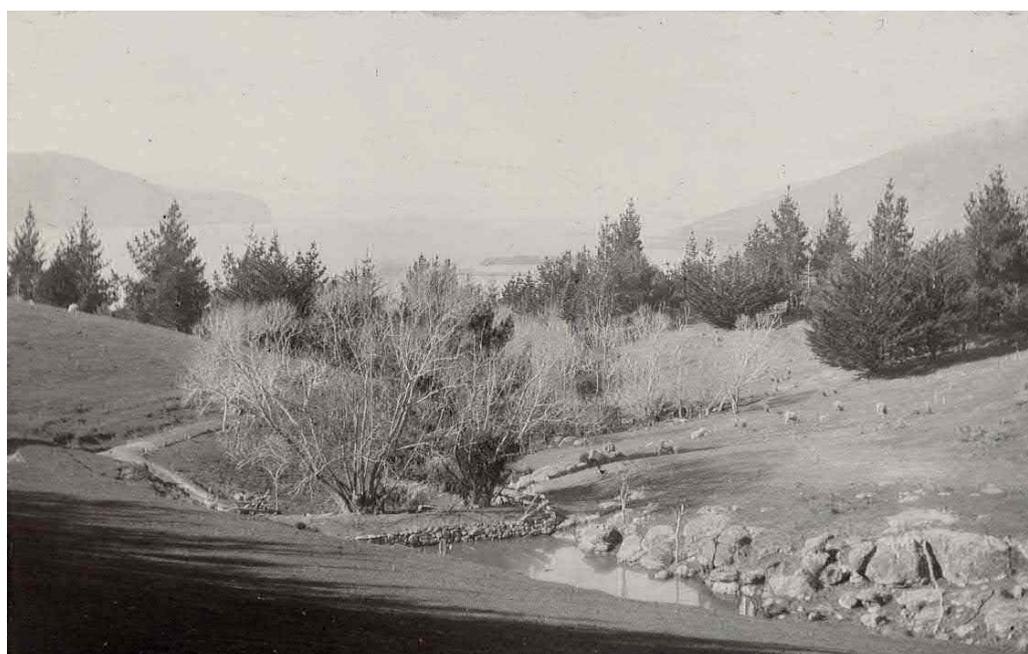
Removal of tree and shrub growth from the lower earth and stone weir is required to prevent further root damage and consequential collapse. The weir should be maintained so that any further deterioration is arrested and the form of the weir remains identifiable. At present the encroaching planting and rooting of shrubs and trees into the weir have caused its partial collapse and conceals the remaining evidence of the weir.

7.6 Care and Management

The weirs and setting should be regularly maintained in accordance with the recommendations and processes established in the cyclical maintenance and management programme included in this plan.



The approximate locations of the upper and lower weirs and suggested route of the track across the top of the upper weir. The track should form the boundary between the open grassland around the upper weir with shrub and tree planting being kept to the uphill sides of the track.



Source: Source: 2015.114.75, Stoddart Album 1, Page 16, CMDRC

Upper Stoddart weir c1890s

The upper weir and track c1890. The *Macrocarpa* on the right of the photo is thought to be the large *Macrocarpa* remaining on site today, and the line of the existing foot track is on the downhill side of this.

7.7 Risk Management Plan

A Risk Management Plan is prepared to foresee risks, assess impacts and define responses to issues. A risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on the place, its fabric and cultural heritage values.

The risk management plan contains an analysis of likely risks with both high and low impact, as well as mitigation strategies to minimise loss of heritage values of heritage places. Risk management plans should be periodically reviewed to avoid having the risk analysis becoming outdated and not reflective of actual potential risks to the place.

Heritage buildings and their cultural heritage values can be put at risk through a variety of causes, including inappropriate management, use, intervention and construction, consequences of statutory requirements and planning, and through environmental factors. These risks need to be identified and evaluated as to risk probability and the severity of the effects, and management processes put in place to minimise and mitigate the cause and effects. To this end, the following Risk Evaluation Matrix sets out possible risks, their probability of occurring and makes recommendations as to how the risk can be removed, minimised or mitigated.

The processes required to manage risks to heritage places are:

Identify – the risk;

Analyse – its consequences and affects;

Plan – for dealing with the risk event and action during and after the event;

Monitor - likelihood of events, mitigating action required and outcomes and remedial action;

Respond - to prevent the event and mitigate affects during and after the event.

The levels of risk severity or impact is determined by considering the effects of the risk to the place, fabric and setting and are graded high, medium or low, with these defined as follows:

High: Risk never accepted

Medium: Risk accepted with precautions

Low: Risk can be accepted

The probability and frequency of the risk occurrence is considered also on a gradation of low – high probability.

The overall risk level is determined from consideration of the probability of the risk occurring and the impact or effects of the risk using a risk matrix. For example, a risk with a probability score of medium and an impact score of low achieves a risk level of low on the risk map.

	High	Medium	High	High
Probability	Medium	Low	Medium	High
	Low	Low	Low	Medium
		Low	Medium	High
				Impact

Mitigating actions and processes include the following:

Risk avoidance and elimination

Risk reduction

Risk transfer

Risk acceptance

Risk Avoidance and Elimination

Avoiding a risk is considered when the effects of a risk are too significant to accept. Avoiding the risk might involve:

- not undertaking the activity that would create the risk
- removing the source of the risk.

If it is decided to take action to avoid the risk, it is necessary to consider what the potential consequences of that decision are for the place.

Risk Reduction

Reducing risk is decreasing the likelihood that something will happen, and/or reducing the impact that the risk would create if it were to happen.

Reducing risk may include developing policy and procedures, and obtaining specialised advice. Even with plans in place to reduce the likelihood that a risk will happen, it is still possible that an event or incident may occur and controls should also include a response plan or actions to reduce the impact if an event or incident occurs.

Risk Transfer & Sharing

Sharing risk is done by others bear some of the risk by:

- using a third party to complete a specialist or difficult activity
- using insurance

If risks are shared by using a third party it is necessary to know that the other party is able to manage the risk. Any third party needs to be competent and suitably qualified.

Insurance policies need to be suitable and will cover the specific risks and that claims are likely to settled.

Legal or regulatory risks cannot be transferred and waivers and disclaimers cannot be used to avoid statutory obligations.

Risk Acceptance

If the level of risk is rated as low or is considered acceptable to the organisation, it can be decided to accept the risks in their current form. There are not many situations where an organisation might accept a risk with significant effects.

7.7.1 Risk Evaluation Matrix

Risk	Risk Evaluation	Risk Severity Level; High, Medium, Low	Probability for Risk; High, Medium, Low	Assessed Risk Level: High, Medium, Low	Risk Prevention Strategies including: Risk avoidance and elimination Risk reduction Risk transfer Risk acceptance	Action
Management & Ownership						
Management	Lack of understanding of appropriate conservation processes and standards can result in poor decision making resulting in adverse effects on the weirs' cultural heritage values	Medium	Medium	Medium	Management processes need to adopt sound conservation policies and principles for all work affecting the cultural heritage values of the weirs and setting. This needs to encompass all parties and people involved in the present and future conservation of the weirs. The process is one of risk avoidance and elimination.	Implement the policies and recommendations of this management plan, Archaeological Assessment, Landscape History and Conservation Report, ICOMOS NZ Charter 2010 and the Florence Charter 1981, All CCC personnel and management involved to be fully briefed on the requirements of the above. The above documents are to be basis of all decision making affecting the weirs.
Neglect and inappropriate maintenance processes	The weirs are at risk of damage through neglect allowing vegetation growth over them causing erosion and potential partial collapse.	Medium	Medium	Medium	Avoid the risk by regular maintenance of the weirs and controlling vegetation growth. Reduce the risk by ensuring heritage professionals control all aspects of the work in accordance with pre-approved methodologies prepared for all work and having regard to the conservation plan policies and implementation recommendations, and the conservation principles and policies of the ICOMOS NZ Charter 2010 and Florence Charter 1981.	Implement a cyclical maintenance programme including clearing of vegetation and cutting of grass. All maintenance and repair work to be directed by a heritage professional implementing approved methodologies and Temporary Protection Plans. For specialist work, use only tradesmen and specialists with stone masonry and earth construction skills and who have an understanding and appreciation of traditional construction processes.
Inappropriate alteration & construction processes	Allowing poorly considered interventions and alterations can cause irreversible loss of cultural heritage value. Allowing alterations to the weirs or their setting that cause damage to the weirs or obscure them or alter the setting, all of which may diminish heritage value.	High	Medium	High	Risk reduction. Prior to any interventions proceeding they require assessment against the requirements of the Landscape Conservation Report, Archaeological Assessment and this Management Plan by a heritage professional to ensure that there is no loss of heritage value as a consequence of the work.	An archaeologist is to be consulted and engaged as required by any applicable Archaeological Authority. Resource Consents for the work are to be obtained as required by the District Plan. Heritage NZ, as an affected party, are to be consulted.
Incremental and cumulative loss of heritage value	Small changes over time have a cumulative affect and can result in aggregated loss of heritage value. Conflict and tensions can arise when the significance of a heritage place such as the weirs and their setting are perceived differently by the community from the owner, and vice versa. This can be different perceptions	High	Medium	High	The risk needs to be avoided through good communication between the council and community by considering possible cumulative effects of any proposed changes and interventions. The principles of minimal intervention, respect for surviving evidence and reversibility of effects should be followed.	The community is to be included in all decision making on maintenance, conservation work and the preservation of the weirs. This includes the catchment ponds and setting. All proposals and processes are to be reviewed by a heritage professional using the conservation plan and conservation policies of the ICOMOS NZ Charter 2010 and Florence Charter 1981. Heritage NZ, as an affected party, are to be consulted.
Change of Ownership	A change of ownership may result in new owners not having an understanding or appreciation of the cultural heritage significance of the weirs.	Medium	Low	Low	The risk should be reduced by requiring the new owners to adopt the Landscape Conservation Report, Archaeological Assessment and Management Plan and that they are fully aware of the custodial implications of heritage building ownership.	Enter into a Conservation Covenant over the Reserve and weirs between the Christchurch City Council and the new owners, and binding future owners.

Stoddart Weirs Architectural Conservation & Management Plan

Risk	Risk Evaluation	Risk Severity Level; High, Medium, Low	Probability for Risk; High, Medium, Low	Assessed Risk Level: High, Medium, Low	Risk Prevention Strategies including: Risk avoidance and elimination Risk reduction Risk transfer Risk acceptance	Action
Funding	That there is insufficient funding available for repairs after catastrophic events. That adequate funding is not available for the continued upkeep and maintenance of the weirs.	Medium	Medium	Medium	The risk should be avoided by ensuring there is available funding for repairs to the weirs following catastrophic events. The risk should be avoided by ensuring adequate funding is available for routine and cyclical repairs and maintenance.	The costs of maintenance and other scheduled tasks should be assessed and included in long term budgets for the up-keep of the weirs.
Use	Risk of damage through visitors clambering over the exposed weirs dislodging rocks etc.	Low	Medium	Low	The risk should be avoided by ensuring adequate funding is available for routine and cyclical repairs and maintenance.	The costs of maintenance and other scheduled tasks should be assessed and included in long term budgets for the up-keep of the weirs.
Statutory & Regulatory						
Conflicting requirements of relevant Statutory Acts	The key legislation that identifies, manages and protects historic structures in New Zealand are the Heritage NZ Act 2014, RMA 1999, and Building Act 2005. There can be conflict and tension between the required and desired heritage outcomes from these.	Low	Low	Low	The risk to cultural heritage values should be reduced by assessing the requirements of the various Acts and determining where conflicts occur.	The intentions of the Heritage NZ Act 2014 should be given priority.
Planning						
Adjacent Land Use and Reserve redevelopment	The weirs are located within the Stoddart Point Reserve, and adjacent to the recreation grounds and playing fields. A risk to the weirs is of further expansion of the playing fields. Extending of indigenous native plantings into the weirs setting.	Medium	Medium	Medium	The risk should be reduced through consultation as it arises. The risk of inappropriate alterations to the Reserve setting should be reduced by the coordination of the use with the management of heritage values.	Monitor and review all proposals for alterations to the Stoddart Point Reserve and engage in consultation with all users of the reserve and community groups. Monitor Reserve management plans and evaluate against the conservation plan policies.
Physical & Environmental						
Wind	The setting is an open site in a Reserve parkland setting with mature trees on the adjacent hillside. There is risk of damage to the weirs from falling trees and large branches.	Low	Low	Low	The trees on the adjacent hillside are part of the Reserve setting and the risk prevention strategy is of acceptance of the risk.	Establish and implement monitoring inspections of the weirs following severe wind events.
Flooding	The levelling of the playing fields has removed the natural water course that the weirs dammed. The risk of a damaging flood is considered minor.	Low	Low	Low	The risk should be accepted.	Monitor the weirs for damage following torrential rain events. Should any remedial stabilisation or repair work be required this should be under the direction of a heritage Professional and Archaeologist.
Earthquake	The weirs are of low height and are of ductile construction. They are unlikely to suffer catastrophic damage in an earthquake event, and weren't damaged in the 2010/11 Canterbury earthquakes.	Low	Low	Low	The risk should be accepted.	Monitor the weirs for damage following severe earthquake events. Should any remedial stabilisation or repair work be required this should be under the direction of a heritage Professional and Archaeologist.
Fire	The weirs are unlikely to be damaged by fire, with any covering vegetation only affected.	Low	Low	Low	The risk should be accepted.	Monitor the weirs for damage following a fire. Should any remedial stabilisation or repair work be required this should be under the direction of a heritage Professional and Archaeologist.
Vandalism	The weirs are in open ground and isolated from neighbouring uses in the park setting. A public walkway runs down the side of the weirs and catchment ponds. The only risk is from excavation of the weirs and removal of stones.	Low	Low	Low	The risk should be accepted.	At maintenance intervals monitor the weirs for vandalism damage. Respond to any notifications of damage from the community. Should any remedial stabilisation or repair work be required this should be under the direction of a heritage Professional and Archaeologist.

7.8 Management and Cyclical Maintenance Plan

Overview of the Management and Cyclical Maintenance Plan:

- 7.6.1 Evaluations of the Weirs
 - 7.6.1.1 Construction
 - 7.6.1.2 Cyclical Maintenance Programme
 - 7.6.1.3 Recording
- 7.6.2 Resources and Requirements
 - 7.6.2.1 Contacts
 - 7.6.2.2 Work log sheets

7.8.1 Evaluation of the Weirs

7.8.1.1 Construction and Current Condition

The upper weir is of stone construction and was constructed with a shingled pathway for stock and carts on its top. It was well built. In c1945 a gap was created at northern end of the weir for which no reason has been found, although it may have been to drain the weir whose function had ceased with the levelling of the playing fields filling in the water course that filled the weirs. The weir is covered in weedy grasses which were removed in 2002/03, although the stone is meant to be exposed and the plant roots may cause degradation of the weir construction over time.

The construction of the smaller lower weir is described as being of earth and stone and of not as good construction as the upper weir. It has been damaged by tree growth with remnants of the tree roots remaining. These and vegetation growth are a risk to the stability and integrity of the weir. The weir is now quite eroded and in places is difficult to interpret. It requires stabilisation and on-going maintenance to ensure its preservation.

Both weirs are approximately 1.5 metres high.

7.8.1.2 Cyclical Maintenance Programme

It is recommended that a regular programme of maintenance be adopted for the weirs and catchments ponds. A programme of regular inspection and maintenance means that minor faults are identified early, thus avoiding the need for major repairs in the future. A well maintained place will be enjoyed more than one that is neglected; it will survive longer, and is less likely to suffer damage in the event of a major storm or catastrophic event.

An outline programme for inspections and maintenance is set out below. This should be expanded and improved when the repair and maintenance processes are undertaken, and following consultation with relevant tradesmen and a conservation specialist.

Inspections and housekeeping tasks to be undertaken are to include the following. The required inspections, responsibility for them and intervals are shown on the Schedule of *Cyclical Maintenance Inspections, Tasks & Actions*.

Monthly

Undertake a visual inspection of the weirs for damage or deterioration including tree and branch fall, vandalism and storm damage.

Remove plant debris and other rubbish.

In growing season, cut grass in catchment ponds and sides.

Yearly

Carry out a full survey of the weir fabric, including the integrity of the stone construction of the upper weir and expose earth construction of the lower weir.

Removal of grasses and other vegetation from the upper weir should be undertaken only under the

direction of the Archaeologist.

The grass covering of the lower weir should be retained as this would assist the stabilization of the earth construction. Woody vegetation and roots should be removed, but only under the direction of the Archaeologist.

Review of the Landscape Conservation Report and Management Plan

Every ten years it is recommended that a review of the Landscape Conservation Report and this Management Plan should occur and that it be updated to include any new cultural heritage significance determined and to record work completed.

During and After a Major Storm or Earthquake

Carry out an inspection of the upper and lower weirs, catchment ponds, adjacent Reserve grounds and hillsides. Report any damage to the Reserves manager who will advise the Conservation Architect.

Whenever a heavy rain warning is issued, monitor any flooding risk throughout the rain period.

7.8.1.3 Recording

For all inspections and actions, a work log should be kept with a schedule of when jobs were done, what was done, methods and materials used, the location of the work and who undertook the work. A photographic record should be taken to record significant work. A suggested log sheet format is included at the end of this Management and Cyclical Maintenance Plan.

7.8.2 Resources and Requirements

7.8.2.1 Contacts

- Asset Owner –
- Grounds Maintenance –
- Conservation Architect/Heritage Professional –
- Community representative –

7.8.2.2 Work Log Sheets

All work to be recorded in a Log Book maintained on site containing the following table:

Date	Work Required and Reason	Remedial Work Completed	Completed by: Signature / Date	Follow up Action Required

PART 4: BIBLIOGRAPHY, REFERENCES & APPENDICES

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9. Appendix

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