

12 Landscape and Visual Impact Assessment

12.1 Introduction

12.1.1 Study Aim

This Landscape and Visual Impact Assessment (LVIA) is part of the Environmental Impact Assessment (EIA) for the proposed Third Golf Course at Kau Sai Chau. The LVIA assesses the potential landscape and visual impacts that might occur as a result of this golf course development that is classified as a category “O1” project in Schedule 2 - Designated Projects Requiring Environmental Permits - in the *Guide to Environmental Impact Assessment Ordinance*.

The LVIA is necessitated due to the expected landscape and visual impacts that could result from the golf course construction and permanent works. Therefore, the impact assessment considers both construction and operation conditions. Since there are sensitive receivers that will be affected, this report also describes mitigation measures that would lessen the magnitude of impacts.

The aim of this LVIA is to identify and describe the expected landscape and visual impacts that might occur as a result of the construction and operation of the Proposed Third Golf Course (herein after referred to as ‘project’) and to define the significance and magnitude of these impacts before and after mitigation.

12.1.2 Study Area

Drawing No. 24213/LVIA/0101 illustrates the location of the existing and proposed third golf courses on Kau Sai Chau. The new golf course will be located on the eastern part of the island and some associated works will be carried out on the existing courses.

Landscape Impact Assessment (LIA): In accordance with *EIAO Guidance Note No. 8/2002* the landscape impact assessment includes all areas that are within 500m from the limit of the works area for the new golf course. This extent is illustrated on Drawing No. 24213/LVIA/0210 (see LIA Study Boundary).

Visual Impact Assessment (VIA): The Study Area of the Visual Impact Assessment (VIA) includes all terrestrial and aquatic areas within the visual envelope of the third golf course. The visual envelope is defined as the visual zone of influence according to the *EIAO Guidance Note No. 8/2002*. This extent is illustrated on Drawing No. 24213/LVIA/0230.

12.1.3 Purpose of this LVIA

The purpose of this LVIA is to define the existing landscape and visual quality in the LVIA Study Area; to evaluate the landscape and visual impacts associated with the Proposed Third Golf Course development; to propose mitigation measure and to establish if the levels of impacts resulting from the development are higher, lower or the same as the existing conditions.

To achieve this purpose, the following goals are set out for this LVIA:

- § To carry out landscape and visual baseline studies and to describe the existing and future conditions;
- § To identify and describe the landscape and visual impacts of the proposed development for both the construction and operation phases;
- § To define the significance and magnitude of these impacts;
- § To propose mitigation measures by taking local conditions and experience in consideration and to describe the maintenance and management of these mitigation measures; and
- § To indicate the residual impacts after mitigation.

12.2 Relevant Legislation and Guidelines

The methodology for undertaking the landscape and visual impact assessment is in accordance with *Annexes 10 and 18* of the *Technical Memorandum on Environmental Impact Assessment Process*, the *EIAO Guidance Note No. 8/2002* and the *EIA Study Brief No. ESB-064/2000*. The list of legislation, standards and guidelines applicable to this assessment is as follows:

- § *Environmental Impact Assessment Ordinance (Cap. 499, Section 16);*
- § *Technical Memorandum on Environmental Impact Assessment Process;*
- § *EIAO Guidance Note No. 8/2002 – Preparation of Landscape and Visual Impact Assessment;*
- § *Hong Kong Planning Standards and Guidelines;*
- § *Tai Mong Tsai & Tsam Chuk Wan OZP No. S/SK-TMT/2;*
- § *Pak Kong and Sha Kok Mei OZP No. S/SK-PK/9;*
- § *Sai Kung Town Plan OZP No. S/SKT/1;*
- § *Hebe Haven OZP No. S/SK-HH/5;*
- § *WBTC No. 25/93 – Control of Visual Impact of Slopes;*
- § *WBTC No. 17/2000 – Improvement of Appearance of Slopes;*
- § *GEO Publication No. 1/2000 – Technical Guidelines on Landscape Treatment and Bio-engineering for manmade Slopes and Retaining Walls*
- § *WBTC 14/2002 – Management and Maintenance of Natural Vegetation and Landscape Works, and Tree Preservation; and*
- § *ETWB TCW No. 2/2004 – Maintenance of Vegetation and Hard Landscape Features.*

12.3 LVIA Assessment Methodology

12.3.1 LVIA Approach

The approach to this study has been facets:

- § To be in accordance with the standards and legislation as described in the *EIAO* and other legislation;
- § To follow a sound research ethic; and
- § To base the assessment methodology on the objectives as set in Section 1.3 above.

12.3.2 The Research Ethic

This LVIA is a professional study conducted by a team consisting of landscape architects assisted by field surveyors and production technicians. The landscape architects conducted the assessment in an independent and comprehensive manner, where the findings are authentic to their properties and not according to preferred definitions. In doing this, the landscape architects relied on experience and professional judgements, the evaluation of the study by Government bodies and the other related impact assessments of this EIA Report. In addition, the findings of this LVIA study are presented in a structured and systematic manner to improve the public comprehension hereof during public participation processes.

12.3.3 Project Description

The project details are described in Section 2 of the EIA Report. Since it is necessary to describe how the proposed development fits into the scope of the landscape and visual environments and describe works that might cause landscape or visual impacts, Section 12.4 of the LVIA describes golf course features relevant to the LVIA.

The description is in text and drawing formats and presents the following details: plans to indicate location of the proposed development, existing golf course, extents of the development works, outline zoning plan and the boundary of affected areas.

12.3.4 Review of Planning and Development Control Framework

A review of the existing planning studies and documents was undertaken as part of the assessment to gain an insight into the planned role of the site, its context and to help determine whether the proposed development fits into the wider existing and future landscape context.

This review considered the planning intensions described on OZPs and other documents. It identifies any issue of conflict with the neighbouring planned land uses. It in particular identifies future visually sensitive receivers (VSRs). It also describes the future landscape setting and visual context of the study area.

12.3.5 Landscape Impact Assessment

The assessment of the potential impacts comprises two distinct sections:

- § Baseline survey; and
- § Identification and definition of landscape impacts.

Baseline Survey:

To conduct the landscape baseline study that describes the physical properties of the landscape, two surveys were carried out: The first was a desktop survey and the second a site survey. These two surveys collected data with respect to the landscape character areas (LCAs) and landscape resources (LRs). Landscape elements surveyed include:

- § Vegetation;
- § Rock features
- § Patterns of settlement;
- § Land use; and
- § Prominent watercourses and water bodies.

Landscape Resources: These are the individual landscape elements types. These resources are described and illustrated. Part of the vegetation survey includes a specific survey on trees. The tree survey methodology is defined in Section 12.3.6 below.

Landscape Character Areas: Landscape areas with broadly homogeneous units of similar character were identified. These are areas where the topography in particular defines landscape units and are further characterised by landscape element compositions. These LCAs are described and illustrated.

Sensitivity to change: The individual LCAs and LRs are rated using low, medium or high depending on the following factors that influence sensitivity:

- § Quality – the overall performance of a LCA or LR in the study area;
- § Importance or rarity;
- § Ability to accommodate change;
- § Significance of potential change in the local context;
- § Significance of potential change in the regional context;
- § Maturity of landscape elements comprising; and
- § Overall size within the study area.

The determined degree of sensitivity has the following meanings:

- § High: A LR or LCA that is rare, protected or of particular value in its local context or in Hong Kong;
- § Medium: A LR or LCA that valuable to its local context and have a moderate ability to absorb change;
- § Low: A LR or LCA that is common, in poor condition (such as the eroded slopes on the site) and have the ability to absorb change.

Identification and definition of landscape impacts:

Identification: This is a systematic process during which any anticipated changes to the landscape are recorded. These changes will occur during both the construction and operation phases of the proposed golf course. Such changes are described, measured and illustrated in this report.

Magnitude of change: The change to LCAs and LRs are rated as negligible, small, intermediate or large. Factors affecting the magnitude of change are:

- § Compatibility of the golf course features with the surrounding landscape;
- § Duration of impacts under construction and operation phases;
- § Scale of the golf course elements;
- § Reversibility of change; and
- § The relative size of the change in comparison to the size of the LCA or LR.

The measured magnitude of change has the following meanings:

- § Large: the quantitative and qualitative loss is high and will lead to permanent alteration of the properties of the LR or LCA;
- § Intermediate: The quantitative and qualitative loss is moderate and some portions of the LR or LCA will be permanently changed;
- § Small: The quantitative and qualitative loss can be observed, but most portions of the LR or LCA will stay intact;
- § Negligible: The effect of the impact on the LR or LCA is barely noticeable or non-existent.

Definition: The impact is a product of the sensitivity of a LCA or LR and the magnitude of change to such a LCA or LR. The significance threshold for impacts to landscape character and resources is a definition of the impact and is rated as significant, moderate/significant, moderate, slight/moderate or negligible. Any such impacts are further defined as beneficial or adverse. The significance threshold is derived from the Significance Threshold Matrix as described in *Table 12.3.5.a* below:

Magnitude of Change caused by proposal	Large	Moderate Impact	Moderate / Significant Impact	Significant Impact
	Intermediate	Slight / Moderate Impact	Moderate Impact	Moderate / Significant Impact
	Small	Slight Impact	Slight / Moderate Impact	Moderate Impact
	Negligible	Negligible Impact	Negligible Impact	Negligible Impact
		Low	Medium	High
Sensitivity to Change				

Table 12.3.5.a The Significance Threshold Matrix

Table 12.3.5b describes the meanings of the above significance threshold definitions. Since impacts can be either beneficial or adverse, the definitions are also classified in such terms.

Adverse / Beneficial Impacts			
Significant: An impact where the proposal would cause significant deterioration or improvement in the existing environmental quality.	Moderate: An impact that would cause noticeable deterioration or improvement in the existing environmental quality.	Slight: An impact that would barely cause a perceptible deterioration or improvement in the existing environmental quality.	Negligible: An impact where the change might be noticeable.
Note: 1) Moderate / Significant impacts can in part be classified as Moderate and in part as Significant. 2) Slight / Moderate impacts can in part be classified as Slight and in part as Moderate.			

Table 12.3.5.b Impact Definitions

12.3.6 Tree Survey Methodology

Trees are landscape resources. The impact identification and definition process are therefore similar to the above statements in Section 12.3.5. This paragraph describes the field survey methodology. In accordance with the *EIAO Guidance Note 8/2002* a broad-brush tree survey should be carried out for a LVIA.

The broad-brush tree survey for this LVIA was conducted by means of a field survey. Tree groups were identified and surveyed. Recorded data are: location of tree group, size of tree group, species composition and approximate number of individuals in each group. The Study Area on Kau Sai Chau has also identified and recorded large numbers of individual trees that are scattered throughout the Site. This report describes these trees and the impact of the development on them. A separate tree felling application is being processed for all trees.

12.3.7 Visual Impact Assessment

Potential visual impacts are assessed under the following two topics:

- § Baseline survey; and
- § Identification and definition of landscape impacts.

Baseline Survey:

The baseline survey was carried out by means of both desktop and field surveys. Data was collected to describe the visual properties of existing and future visually sensitive receiver (VSR) groups.

VSR groups: Existing and future VSRs that are located within the visual envelope were identified. The visual envelope includes all areas from which the golf course can be seen and is defined as the view shed formed by natural and manmade features such as existing ridgelines, built development and for example areas of woodland/or large trees.

Sensitivity to change: The individual VSR groups are rated using low, medium or high depending on the following factors that influence sensitivity:

- § Value of existing views;
- § Quality of existing views;
- § Availability of alternative views;
- § Amenity of alternative views;
- § Type of VSRs in the group;
- § Number of VSRs in the group;
- § Duration of views to the golf course;
- § Frequency of views to the golf course; and
- § Degree of visibility.

The determined degree of sensitivity has the following meanings:

- § High: A VSR group with a large number of viewers that enjoy a unique or valuable view, which will be dramatically altered with the slightest change to it;
- § Medium: A VSR group with a medium number of viewers who enjoy good views with some disturbances in the present sightlines. Change to their views will be noticeable, but will not alter the essential qualities thereof;
- § Low: A VSR group with only a few viewers, whose view will not be noticeably changed by the proposal.

Identification and definition of visual impacts:

Identification: This is a systematic process during which any anticipated changes to views are recorded. These changes will occur during both the construction and operation phases of the proposed golf course. Such changes are described illustrated in this report.

Magnitude of change: The change of views from VSR groups is rated as negligible, small, intermediate or large. Factors affecting the magnitude of change are:

- § Compatibility with the landscape and character of the surroundings;
- § Duration of impacts;
- § Scale of the golf course;
- § Reversibility of the change;
- § Viewing distance; and
- § Potential blockage of views.

The measured magnitude of change has the following meanings:

- § Large: The qualitative change is dramatic and permanent;
- § Intermediate: The qualitative change is noticeable, but viewers still have other views of good quality;
- § Small: The qualitative change is noticeable, but viewers have a large number of high quality alternative views for enjoyment;
- § Negligible: The effect of the impact on the VSR group is barely noticeable or non-existent.

Definition: Similar to the case of LCAs and LRs, the VSR groups impact is a product of the sensitivity of VSR group and the magnitude of change of its views. The significance threshold for impacts is a definition of the impact and is rated as significant, moderate/significant, moderate, slight/moderate or negligible. Any such impacts are further defined as beneficial or adverse. The significance threshold is derived from the Significance Threshold Matrix as described in *Table 12.3.5.a* above and the meanings of such impacts are clarified in *Table 12.3.5.b*.

12.3.8 Landscape & Visual Impact Mitigation Measures

The identification of the landscape and visual impacts will highlight those sources of conflict requiring design solutions or modifications to reduce the impacts, and, if possible, blend the development and associated activities in with the surrounding landscape. Mitigation measures have considered factors including:

- § Avoiding landscape and visual impacts as far as possible;
- § Preserving sensitive landscape and visual elements as far as possible;
- § Preservation of existing vegetation as far as possible;
- § Introduction of woodland, tree and shrub planting of new or disturbed slopes, amenity strips and areas, areas adjacent to any new structures to aid stabilization with careful consideration of significant landscape elements;
- § Consideration of the contouring of new slopes in order to visually integrate them into the existing topography;
- § Use of vegetated earth mounding or structural solutions for screening; and
- § Feasibility of mitigation measures in respect of funding, implementation phasing and maintenance.

These objectives will result in the formation of landscape mitigation proposals, which will alleviate the previously identified landscape and visual impacts as far as possible, both during its construction and operation phases, and to ensure that the residual impacts are acceptable.

12.3.9 Defining the Residual Impacts

The residual impacts are those, which remain after the proposed mitigation measures have been successfully implemented. This is assessed both during the construction period and during the design year, which is taken to be 10 years after the golf course has been opened to normal operation. During the design year the soft landscape mitigation measures are deemed to have reached a level of maturity, which allows them to perform their original design objectives.

As described above, the level of impact is a product of the sensitivity to change and the magnitude of change, which the proposals will cause to landscape character, landscape resource or visually sensitive receiver. It is a comparison of the future landscape modified by the proposals with the landscape, which would have existed during this period if the golf course had not been constructed. This assessment also considers the ability of the landscape character, landscape resource or visual amenity to tolerate change, i.e. its quality and sensitivity taking into account the beneficial effects of the proposed mitigation. The significance threshold is as per the description in *Table 12.3.5a*

In accordance with *Annex 10* of the EIAO-TM an overall assessment is also made of the residual landscape and visual impacts attributable to the proposed scheme. The degree of residual impact is considered in accordance with The Significant Threshold Matrix B in *Table 3.5.a* above.

12.3.10 Presentation Materials

The approach to this LVIA is to present a concise text and thorough illustrations

The text, including table is generated with MS WORD.

The aerial photo location plan (Drawing No. 24213/LVIA/0101) used in this LVIA was obtained from the Survey and Mapping Office of the Lands Department of the Government of HKSAR and reproduction rights were obtained from the Lands Department. This aerial photo was scanned with a Canon and converted to Photoshop 6.0 format for further configurations.

Photos for the baseline study were taken with a Canon G2 digital camera and first converted to Adobe Photoshop format. These are used in this LVIA to describe the landscape resources, landscape character areas the views from visually sensitive receivers groups.

The terrain models for the photomontages were built with 3d Max and converted to Photoshop 6 prior to overlaying them on photographs.

The base maps that are used in this LVIA were obtained from the Survey and Mapping Office of the Lands Department of the Government of HKSAR. Reproduction rights were obtained from the Lands Department.

All the figures of this LVIA are on A3 size and in color. These figures were originally printed for submission with a FUJI XEROX DocuColor 1250 printer.

12.4 Project Description

12.4.1 Overview

Works for this project are for the third public golf course on Kau Sai Chau and associated facilities. Details are described in Chapter 2 of the EIA Report. The description below is a brief summary of the works, with particular attention to those works that will impact the landscape and visual environments.

12.4.2 Design Phase

The design phase of this project commenced in the last quarter of 2004 and was completed in mid 2005. Several stakeholders and interest groups were consulted during the process in order to identify potential impacts at an early stage and to avoid these impacts as far as possible. As a result, the design was revised several times in order to avoid disturbance to sensitive water courses, minimize cut and fill works, minimize removal of trees, protect mangroves, avoid visual obstruction, avoid direct runoff from the golf course to the ocean and to ensure an harmonious interface with the existing golf course. Enhancement of the landscape was given high priority, in particular to restore eroded slopes within the works area.

Broad Landscape Strategy: The landscape has been designed to support the play of golf, to enhance the existing landscape and to mitigate landscape and visual impacts.

Since the third golf course will be a public golf course, its tees, greens and fairways have been designed to accommodate a large range of players. It will be suitable for the use by professional players as well as novice players. Shade trees will be located at rain shelters and halfway houses for the comfort of golfers. Access and circulation through the new golf course will be by golf carts. The track layout is illustrated on Drawing Nos. 24213/LVIA/0102, - /0111, - /0112, - /0113 and - /0114.

Landscape works at the existing pier will include the construction of a new retaining with entrance logos. This wall will be surfaced to have a natural rock face appearance (see Drawing No. -/0544. More trees will be planted to screen site formation works at the desalination plant and to direct views around the roundabout. Landscape works at the administration building will include new tree, shrub and ground cover planting with the aim of enhancing the existing landscapes and to provide more shade. Dense screen planting will be carried out with the use of trees and shrubs at the maintenance building.

The grassing works for the tees, fairways and greens will be the largest component of landscape works at the golf course area. The other major component of landscape works will be the restoration of eroded slopes by the use of bio-engineering techniques. Hydroseeding will be the main planting technique on these slopes. Shrub and tree planting will further support this. Other landscape works of the golf course area will comprise of grass-shrub-mix hydroseeding in residual areas that were disturbed during construction and tree planting works. Trees will be planted to provide shade, direct views, increase the species diversity and to compensate for losses.

12.4.2 Construction Phase

The construction phase is expected to commence in late 2005. Completion of works is expected in mid 2007.

Drawing No. 24213/LVIA/0110 illustrates the extent of the construction works and the key construction facilities. The "Works Boundary of Proposed New Third Golf Course" on the aforesaid drawing illustrates the extent of construction works. Bulk site formation works will be carried out during the dry season in order to avoid excessive erosion and will cover the areas illustrated in the works boundary zones.

The existing pier will be used during the construction of the desalination plant and associated saltwater pumping station. The location of the desalination plant is illustrated on Drawing No. - / 0114. Occasionally, the existing pier will also be used for the delivery of construction workers, building plant and building material. A temporary barging point will be erected at a rocky shoreline point East of the existing golf course. It is illustrated on Drawing No. - / 0111. Old concrete ruins of a previous

pier are still present at this point. Deliveries to Site during the construction phase will prioritize this temporary barging point. It will be decommissioned after the construction phase in mid 2007.

Haul roads will be created for construction activities. These will be located on future fairway and cart path areas in order to avoid disturbance of natural vegetation. A haul road section will be created between the temporary barging point and the nearest primary haul road. This haul road will be decommissioned after construction. Site formation and grassing works will cover up other haul roads during the course of construction.

Site offices may be located approximately in the centre of the third golf course, near the proposed Hole 2 tee complex. The construction yard may be located South of the Hole 17 fairway.

12.4.3 Operation Phase

The proposed third golf course will be an 18-hole golf course. Key supporting infrastructure include: Desalination plant, salt water pumping station, a two level golf cart parking building, a new practice green, minor extensions of the administration building, a one storey high additional maintenance building, maintenance service yard, golf cart path, irrigation lakes, two small bridges, water tanks, water pumping stations, halfway houses and rains shelters. Halfway houses and rain shelters will be one storey high. These are illustrated on Drawing Nos. 24213/LVIA/0102, - /0111, - /0112, - /0113 and - /0114.

Circulation: Future access to the golf courses will be via the existing pier. Visitors will be taken from the pier to the administration building by bus. New larger busses will be required to cope with the future increase of visitor numbers. To facilitate the movement of such larger busses, the roundabout at the pier will be extended as well as the drop-off zone at the administration building. The existing vehicular circulation system from the administration building to the maintenance buildings will be kept, while an additional service road will be constructed around the maintenance building extensions. An additional helicopter pad will be constructed between the new Hole 12 and Hole 13 (See Drawing No. -/0111). Service access to the halfway houses and rain shelters will be via the proposed new golf cart track.

Golf players will access the third golf course from the new golf cart parking building, which will be located East of the administration building. A network of golf cart tracks will be located on the new course as is illustrated on Drawing Nos. -/0102, - /0111, - /0112, - /0113 and - /0114. Valleys and streams will be bridged over.

Works: The desalination plant will be located in a depression of the small hill behind the existing pier as is illustrated on Drawing No. - /0114. The Eastern part of this hill will require rock cutting and slope stabilization works in order to locate the plant on a platform, which is accessible from the existing road and to screen views to it as much as possible. The vehicular roundabout behind the existing pier will be extended to allow for the movement of larger busses. A small portion of the foot slopes of the hill will be effected and be stabilized with a low retaining wall. These works are illustrated on Drawing Nos. - /0543, - /0544 and - /0545.

Water mains will be laid along the access road leading towards administration / clubhouse building complex. Minor road extension works will be carried out at the administration building to allow access and movement of larger busses. The existing golf cart parking area at the administration building will be replaced and enlarged to a two-storey cart park building. The entrance portal of the administration building will also be enlarged.

The maintenance building, which is located southeast of the administration building will be expanded to include additional storage facilities and management offices. These expansions are necessary to deal with additional requirements associated with the third golf course. A septic tank will also be provided at his location.

Hole 1, Hole 18 and a new practice green will be located southeast of the building complexes. From this location the first nine holes and Hole 17 are located adjacent to the existing golf courses at a position approximately northwest from the central ravine of the natural topography. These are illustrated on Drawing Nos. - /0111, - /0112 and - /0114. Holes 10 to 16 will be located southeast of the central ravine.

12.5 Review of Planning and Development Control Framework

12.5.1 Introduction

A review of the existing and future development framework that encompasses or will be influenced by the third golf course has been undertaken and the results of this review are described below. The aims of this review are:

- § to gain insight into the planned functions of the study area and its context;
- § to identify any issue of conflict with the neighbouring planned land uses;
- § to describe how the golf course fits in the planning and development context; and
- § to determine future sensitive receivers (SRs).

A study commissioned by the Planning Department namely: "Study on South East New Territories Development Strategy Review" indicates that Kau Sai Chau is centrally located in a larger area that will be characterised by: "Conservation oriented recreation land uses". The Study identifies Kau Sai Chau as an island that has or will have landscape protection areas, development areas (the existing golf courses) and recreation areas with conservation effort. The proposed third golf course is located within the area that is defined as recreation area with conservation effort. Section 2 of the EIA Report describes conservation efforts on the golf course such as the protection of existing sensitive streams, protection of trees, protection of mangrove areas and primary knolls. Since the play of golf, which is recreation activity, will be the primary use of the land, both the recreation and conservation efforts described in the aforesaid study will be achieved and no land use conflicts are anticipated.

The Study further describes the surroundings of Kau Sai Chau. It highlights in particular the conservation intensions of the larger area, which includes the following country parks: Sai Kung East Country Park, Sai Kung West Country Park, Ma On Shan Country Park and the Clear Water Bay Country Park. These country parks forms an imaginary green arch around the island. Several SSSI areas are also located in the larger region. The major tourism hubs are Sai Kung, Ho Chung, Ng Fan Tin and Clear Water Bay. It is unlikely that the new golf course will have direct adverse conflicts with the planning intensions of these areas.

Four Outline Zoning Plans (OZP) further define the development intensions of nearby areas, namely:

- § Tai Mong Tsai & Tsam Chuk Wan OZP No. S/SK-TMT/2;
- § Pak Kong and Sha Kok Mei OZP No. S/SK-PK/9;
- § Sai Kung Town Plan OZP No. S/SKT/1; and
- § Hebe Haven OZP No. S/SK-HH/5.

Land uses on the Tai Mong Tsai & Tsam Chuk Wan OZP are the nearest to Kau Sai Chau, less than two kilometres away, and are the most likely to receive influences from the golf course. The expected influences will be visual and mostly apparent during the construction phase when vessels will deliver building material to Kau Sai Chau via a temporary barging point and site formation works. Drawing No. 24213/LVIA/0201 illustrates the location of these land uses.

While the largest extent of land areas illustrated on this OZP have conservation intensions, the OZP describes residential (group C) (R(C)) village type development (V) as well as government, institutional or community (G/IC) types of land uses. These

are typically located in a scattered pattern with green areas in-between. Recreation (Rec) and other specified uses (OU) illustrated on this OZP also have scattered distribution patterns. In general, the development intensity of these uses is low. As a result, buildings are typically low-rise. Land uses along the coastal bay at Tsam Tsuk Wan will receive visual impacts from the development of the golf course, since these are located in the visual envelope of the golf course (see Drawing No. 24213/LVIA/0240). These impacts are further described in Sections 12.8 and 12.99 of this LVIA. In short though, the construction phase impacts before mitigation will be slight to moderate. Operation phase impacts are expected to be slight. No direct landscape impacts are expected on any of the land uses of this OZP.

Land uses that are described on the other three OZPs will not be directly affected. Minor disturbances are however expected during the construction phase with the uploading and downloading of building material and construction plant in Sai Kung prior to shipping to Kau Sai Chau.

12.5.2 Fit of Proposal Within Existing Planning and Development Context

With respect to the overall planning intentions in the South East New Territories, the proposed third new golf course will support recreational and tourism initiatives. Though environmental impacts will be inevitable, the third gold course is not expected to be in direct conflict with statutory land uses that have conservation and preservation intentions.

Development types such as R(C), V, G/IC, Rec, and OU with higher people user numbers will receive visual impacts. Such impacts will not be significant, will not render the function of these uses obsolete and will decrease after the construction phase.

Direct impacts on green belt (GB) areas are not expected. Occasional users will receive visual impacts that will not be significant. Similarly, Conservation area (CA), coastal protection area (CPA) and country park (CP) land uses will not be directly impacted and occasional users will receive some visual impacts, especially during the construction phase. Such visual impacts will not cause any significant conflicts with these land uses.

In overall consideration, the proposed third golf course at Kau Sai Chau is expected to fit within the planning and development context of its surroundings. Visually sensitive receivers of some land uses will be affected, in particular around Tsam Chuk Wan. Sections 12.8 and 12.9 of this LVIA describe these expected visual impacts.

12.6 Existing Landscape Baseline Conditions

12.6.1 Introduction

This section describes the landscape baseline conditions of all areas that are within a 500m distance from the works boundaries of the third golf course or associated infrastructure. Descriptions are on the properties of the landscape resources and character areas.

Shrubland and the grassing areas of the two existing golf courses dominate landscape resources on Kau Sai Chau. The man-made lakes, wetland and reservoir diversify the collection of resources. These are illustrated on Drawing No. 24213/LVIA/0210.

The landscape character of Kau Sai Chau is characterised by rolling hillside landscapes with valleys, knolls, ridges, rocky and sandy shorelines as well as the existing golf courses. Prominent man-made features include the existing clubhouse, administration buildings, reservoir, pier and fairways. In total, ten landscape character areas were recorded within the boundaries of the landscape. The extent of these are illustrated on Drawing No. 24213/LVIA/0220.

12.6.2 Landscape Resources

12.6.2.1 LR 1 – Tall Shrubland

Tall shrubland covers large areas of relatively undisturbed land within the Study area. These are typically characterised by tall grasses, shrubs and small trees. Species include: *Baeckea frutescens*, *Gordonia axillaries*, *Litsea rotundifolia* var. *oblongifolia*, *Pinus massoniana*, *Ormosia emarginata* and *Rhus succedanea*.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Medium
Importance and rarity	Medium
Ability to accommodate change	High
Local significance of potential change	Medium
Regional significance of potential change	Medium
Maturity	Medium
Area	101 Ha
Sensitivity Rating	Medium

Table 12.6.2.1.a LR 1: Sensitivity to Potential Change

12.6.2.2 LR 2 – Shrubland

The species composition of this LR is similar to that of LR 1, with the exception of less small trees, lower shrub cover and more grass cover. The likely reason for this observation is lower soil depths, fire and human disturbance. Weeds like the herbaceous vine *Mikania micranthus* are frequently encountered at locations near existing golf courses in this LR.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Medium
Importance and rarity	Medium
Ability to accommodate change	Medium
Local significance of potential change	Medium
Regional significance of potential change	Medium
Maturity	Low

Area	190 Ha
Sensitivity Rating	Medium

Table 12.6.2.2.a LR 2: Sensitivity to Potential Change

12.6.2.3 LR 3 – Developing Woodland and trees

The site is dominated by shrubland vegetation with a few individual trees scattered within. Some valley areas have developing secondary woodlands, which typically trees from the genera *Cinnamomum* and *Machilus*. Other frequently observed species are *Ilex spp.*, *Gordonia axillaries*, *Adinandra millettii*, *Diospyros morrisiana*, *Garcinia oblongifolia*, *Glochidion spp.* and *Sapium sebiferum*. Valley floors typically have *Reevesia thyrsoidea*, *Rhus succedanea* and *Sapium spp.* The majority of trees are less than 4m tall.

The individual tree survey has recorded a total number of 661 trees. Of these, 32 are classified as significant for being either rare or having high amenity values.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Low
Importance and rarity	Medium
Ability to accommodate change	High
Local significance of potential change	Medium
Regional significance of potential change	Low
Maturity	Low
Area of woodland	19 Ha
Individual trees	661
Sensitivity Rating	Low

Table 12.6.2.3.a LR 3: Sensitivity to Potential Change

12.6.2.4 LR 4 – Marches

Four man-made lakes are located in a lowland area North-west of the administration building. Their amenity value, vegetation cover and species diversity are high. A high quality man-made wetland is located East of the existing course close to the proposed Hole 5 location.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	High
Importance and rarity	Medium
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity	High
Area	4.1 ha
Sensitivity Rating	High

Table 12.6.2.4.a LR 4: Sensitivity to Potential Change

12.6.2.5 LR 5 – Reservoir

A large reservoir is located at the eastern end of the existing golf courses. It was created approximately 10 years ago. Fairways grass and introduced natural shrubland vegetation covers its banks. Muddy flats are exposed during very dry seasons due to water draw downs.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Medium
Importance and rarity	Low
Ability to accommodate change	Medium
Local significance of potential change	Medium
Regional significance of potential change	Low
Maturity	Low
Area	5.2 ha
Sensitivity Rating	Low

Table 12.6.2.5.a LR 5: Sensitivity to Potential Change

12.6.2.6 LR 6 – Mangroves

Cultivated mangrove forests are located at two areas within the Study Area. The first is behind the reservoir's wall and the second on coastal mud plains southeast of the existing course. Most of these mangroves are young and immature. They do however comprise rare species with conservation value.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Medium
Importance and rarity	High
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	High
Maturity	Low
Area	0.4 Ha
Sensitivity Rating	High

Table 12.6.2.6.a LR 6: Sensitivity to Potential Change

12.6.2.7 LR 7 – Eroded Slopes

Much of the Central Valley and the Coastal Valley (See Drawing Nos. 24213/LVIA/220 and -/ 0211) have eroded slopes. These are scars in the landscape giving it a quarry-like appearance. It is likely that the origin of these scars is man-made due to previous military training activities. The vegetation cover of these scars is less than 5% and dominated by pioneer species.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Low
Importance and rarity	Low
Ability to accommodate change	High
Local significance of potential change	Low
Regional significance of potential change	Low
Area	10 Ha
Sensitivity Rating	Low

Table 12.6.2.7.a LR 7: Sensitivity to Potential Change

12.6.2.8 LR 8 – Sandy Beaches

A few sandy beaches are located within the LIA Study boundaries. These are typically well intact, small and attractive.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	High
Importance and rarity	High
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Running length	0.6 km
Sensitivity Rating	High

Table 12.6.2.8.a LR 8: Sensitivity to Potential Change

12.6.2.9 LR 9 – Rocky Shorelines

Most of the coastal edges are characterised by rocky shorelines of volcanic origin. These accommodate a diversity of animal and plant habitats. Rock slopes are steep and for the most inaccessible.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	High
Importance and rarity	High
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Running length	8 km
Sensitivity Rating	High

Table 12.6.2.9.a LR 9: Sensitivity to Potential Change

12.6.2.10 LR 10 – Grassing Areas of Existing Golf Course

This landscape resource is the cultivated grassing surface of the golf course itself, comprising the fairway tee, fairway and putting areas. It is well managed and maintained with an attractive appearance throughout the year, including the dry season.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating

Quality of landscape resource	High
Importance and rarity	Medium
Ability to accommodate change	Medium
Local significance of potential change	High
Regional significance of potential change	Medium
Area	63 Ha
Sensitivity Rating	Medium

Table 12.6.2.10.a LR 10: Sensitivity to Potential Change

12.6.2.11 LR 11 – Streams

Three streams are located within the LIA Study boundaries, namely stream A, B and C. These are illustrated on Drawing No. -/0210. These streams are perennial with an average depth of less than 300mm. Stream A carries a high sediment load, while stream B and C has clear water with little sediment. Riparian vegetation is immature. Small trees, with heights seldom more than 4m were recorded within the stream valley areas with *Schefflera heptaphylla*, *Machilus chekiangensis*, *Gordonia axillaris* and *Ormosia emarginata* as the dominant species.

Sensitivity of LR at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape resource	Medium
Importance and rarity on Kau Sai Chau	High
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Running length	1.6 km
Sensitivity Rating	High

Table 12.6.2.11.a LR 11: Sensitivity to Potential Change

12.6.3 Landscape Character Areas

12.6.3.1 LCA 1 – Existing Kau Sai Chau Golf Courses

Construction of the existing two golf courses was completed approximately 10 years ago. Today these two public golf courses comprise a high quality landscape that is characterised by rolling fairways and greens. They are important in the cultural landscape of Hong Kong, since they are the only public golf courses. The very reason for building the third golf course that there is at present a high demand and low supply of public golf courses in Hong Kong. This LCA can therefore be considered as a rare landscape type in Hong Kong. It is however a man-made landscape with large features, which gives it the ability to absorb change well. The rating of this LCA's sensitivity to change and ratings of sensitivity parameters are recorded in Table 6.3.1.a below.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	High
Ability to accommodate change	Medium
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity of Landscape	Medium
Area	134 Ha
Sensitivity Rating	Medium

Table 12.6.3.1.a LCA 1: Sensitivity to Potential Change

12.6.3.2 LCA 2 – Central Valley

This large LCA is most visible when approaching the existing ferry pier from the ocean. It is characterised by large eroded scars on both sides of the valley. Other areas in this valley is characterised with scrubland and some woodland.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	Low
Quality of landscape resources	Low
Importance and rarity	Medium
Ability to accommodate change	High
Local significance of potential change	Medium
Regional significance of potential change	Low
Maturity of Landscape	Medium
Area	39 Ha

Sensitivity Rating	Low
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Table 12.6.3.2.a LCA 2: Sensitivity to Potential Change

12.6.3.3 LCA 3 – Tai Leng Ridge

The Tai Leng Ridge stretches prominently across Kau Sai Chau. Several small knolls and rocky outcrops reinforce the aesthetic appeal of this ridge. On the western side is a cleared water pipe reserve that scars the landscape. This LCA is visible from a large number of vantage points, both locally and regionally. Any change to this landscape will impact its character.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	Medium
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	High
Maturity of Landscape	Medium
Area	53 Ha
Sensitivity Rating	High

Table 12.6.3.3.a LCA 3: Sensitivity to Potential Change

12.6.3.4 LCA 4 – Yi Leng Ridge / Valley

This is a prominent valley character area. It is located East of the Tai Leng Ridge. It is characterised by a number of small knolls and rocky outcrops that collectively appears like a ridge within the valley. Several foothills and also valley floor areas are scarred by erosion. The valley is further characterised with a diverse number of natural features like small dry riverbeds, rock boulders and shrubland, which are for the most only partly visible from the existing golf course.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	Medium
Quality of landscape resources	Medium to low
Importance and rarity	Low
Ability to accommodate change	Medium
Local significance of potential change	Medium
Regional significance of potential change	Low
Maturity of Landscape	Low
Area	51 Ha
Sensitivity Rating	Low

Table 12.6.3.4.a LCA 4: Sensitivity to Potential Change

12.6.3.5 LCA 5 – Coastal Ridge

Located South-east on Kau Sai Chau, this ridge is highly visible to vessel passengers and only partially visible from the existing golf course. It comprises a series of small hills and rocky outcrops with deep and shallow valleys. Parts of this LCA are covered with woodland, while most of the vegetation is shrubland.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	Medium
Ability to accommodate change	Low
Local significance of potential change	Medium
Regional significance of potential change	High
Maturity of Landscape	Medium
Area	27 Ha
Sensitivity Rating	High

Table 12.6.3.5.a LCA 5: Sensitivity to Potential Change

12.6.3.6 LCA 6 – Coastal Valley

Central parts of the proposed third golf course will be located in this valley. It is characterised with several steep slopes and three prominent valleys. A small dam wall is located in the central valley. The shoreline has muddy floodplains with mangroves, sandy beaches and rocky beaches. Vegetation cover is mostly shrubland. Some parts have eroded scars.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High

Importance and rarity	High
Ability to accommodate change	Medium
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity of Landscape	Medium
Area	21 Ha
Sensitivity Rating	High

Table 12.6.3.6.a LCA 6: Sensitivity to Potential Change

12.6.3.7 LCA 7 – Coastal Hills

Northern parts of the proposed third golf course will be located on this LCA. It is characterised with several steep slopes and a series of knolls. Areas between knolls have even slopes. These even slopes are prioritised for golf course development. A small bay is located in its approximate centre. It has a rocky shoreline. Ruins of a previous pier are located on both ends of the bay. Vegetation cover is mostly shrubland with some young woodland patches.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	High
Ability to accommodate change	Medium
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity of Landscape	Medium
Area	40 Ha
Sensitivity Rating	High

Table 12.6.3.7.a LCA 7: Sensitivity to Potential Change

12.6.3.8 LCA 8 – Lower Coastal Hills

This LCA represents a small, relatively intact highland area North of the existing golf course. The landform is rolling with a few small knolls. Its shoreline is rocky and vegetation cover dominated by shrubland.

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	Medium
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity of Landscape	High
Area	11 Ha
Sensitivity Rating	High

Table 12.6.3.8.a LCA 8: Sensitivity to Potential Change

12.6.3.9 LCA 9 – Northern Coastal Hills

The character of this landscape is similar to that of LCA 8, except for having higher knolls

Sensitivity of LCA at Baseline Conditions	
Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	Medium
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity of Landscape	High
Area	12 Ha
Sensitivity Rating	High

Table 12.6.3.9.a LCA 9: Sensitivity to Potential Change

12.6.3.10 LCA 10 – Western Coastal Hills

This is a highland area with knolls that forms a small ridgeline. It is located West of the existing golf course near the pier. It is flanked on its West and East with two bays. Its shoreline is rocky and vegetation cover dominated by shrubland.

Sensitivity of LCA at Baseline Conditions	
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Sensitivity Parameter	Rating
Quality of landscape character	High
Quality of landscape resources	High
Importance and rarity	Medium
Ability to accommodate change	Low
Local significance of potential change	High
Regional significance of potential change	Medium
Maturity of Landscape	High
Area	7 Ha
Sensitivity Rating	High

Table 12.6.3.10.a LCA 10: Sensitivity to Potential Change

12.7 Landscape Impact Assessment

12.7.1 Impacts on Landscape Resources

The largest impact on landscape resources will occur during the construction phase, when large areas of land will be cleared for site formation works. These impacts are described in Table 7.1 below:

LR Ref.	LR Notation	Sensitivity to Change	Impact Description	Source of Impact	Magnitude of Change	Significance Threshold
LR1	Tall Shrubland	Medium	Construction: – Loss of vegetation: 34 Ha. – Baseline vegetation cover is 101 Ha.	Construction: – Site formation works; and – Clearance of vegetation.	Construction: Intermediate	Construction: Moderate Adverse
			Operation: – Loss of vegetation. – Replacement of existing vegetation with approximately 21 Ha of turf grassing area.	Operation: – New golf course features replacing existing vegetation.	Operation: Intermediate	Operation: Moderate Adverse
LR 2	Shrubland	Medium	Construction: – Los of vegetation: 29 Ha. – Baseline vegetation cover is 190 Ha.	Construction: – Site formation works; and – Clearance of vegetation.	Construction: Intermediate	Construction: Moderate Adverse
			Operation: – Loss of vegetation. – Replacement of existing vegetation with approximately 24 Ha of turf grassing area.	Operation: – New golf course features replacing existing vegetation.	Operation: Intermediate	Operation: Moderate Adverse
LR 3	Developing Woodland and trees	Low	Construction: – Loss of trees: 352 units. – Baseline tree numbers are in the order of 661 units.	Construction: – Site formation works; and – Clearance of vegetation.	Construction: Small	Construction: Slight Adverse
			Operation: – Loss of trees.	Operation: – New golf course features replacing existing vegetation.	Operation: Small	Operation: Slight Adverse
LR 4	Marches	High	Construction: – Negligible loss of riparian vegetation (less than 100m ²). – Baseline size is 4.1 ha. – Change of landform.	Construction: – Site formation works for the footings of the new golf cart bridge.	Construction: Negligible	Construction: Negligible
			Operation: – Loss of riparian vegetation; – Change of landform.	Operation: – Footings of new golf cart bridge.	Operation: Negligible	Operation: Negligible
LR 5	Reservoir	Low	Construction: – Vegetation clearance: less than 0.5 ha; – Baseline size is 5.2 ha; and – Minor construction activities.	Construction: – Site formation works; – Construction pipe works and pumping station; and – Vegetation clearance.	Construction: Negligible	Construction: Negligible
			Operation: – Loss of vegetation to make way for footings of pumping station.	Operation: – Minor replacement of vegetation.	Operation: Negligible	Operation: Negligible
LR 6	Mangroves	High	Construction: – Nil.	Construction: – Nil.	Construction: Negligible	Construction: Negligible

			Operation: – Nil.	Operation: – Nil.	Operation: Negligible	Operation: Negligible
LR 7	Eroded slopes	Low	Construction: – Change of landform. – Approximately 2 ha will be covered by turf grassing areas of the proposed golf course.	Construction: – Site formation works; – Construction of golf course feature and haul road.	Construction: Intermediate	Construction: Slight / Moderate Beneficial
			Operation: – Replacement of bare soil with golf course grassing.	Operation: – New golf course features.	Operation: Intermediate	Operation: Slight / moderate Beneficial
LR 8	Sandy Beaches	High	Construction: – Nil.	Construction: – Nil.	Construction: Negligible	Construction: Negligible
			Operation: – Nil.	Operation: – Nil.	Operation: Negligible	Operation: Negligible
LR 9	Rocky Beaches	High	Construction: – Loss of rocky outcrops.	Construction: – Construction of temporary barging point.	Construction: Negligible	Construction: Negligible
			Operation: – Nil.	Operation: – Nil.	Operation: Negligible	Operation: Negligible
LR 10	Grassing areas of Existing Golf course	Medium	Construction: – Removal of turf grassing cover: 5 ha. – Baseline cover is 63 ha. – Removal will be temporary.	Construction: – Minor site formation works and installation of irrigation and drainage pipes.	Construction: Small	Construction: Slight / Moderate Adverse
			Operation: – Nil.	Operation: – Nil.	Operation: Negligible	Operation: Negligible
LR 11	Stream	High	Construction: – Negligible loss of vegetation in stream B and C for bridge footings and box culvert settings. A dry tributary of B (part with no perennial flow) will be converted to underground culvert. – Negligible loss of vegetation in main tributary of stream A due to construction of bridge footings. – Loss of vegetation and water habitat in secondary tributary of stream A. – Total baseline running length of streams is 1.6km. – Loss of stream B dry tributary will be approximately 120m in running length. – Loss of stream A secondary tributary will be approximately 50m in running length.	Construction: – Construction of underground culvert in dry tributary of stream B. – Construction of bridge footings. – Construction of underground culvert in secondary tributary of stream A.	Construction: Small	Construction: Moderate Adverse
			Operation: – Permanent loss of water habitat and vegetation in dry tributary of stream B and secondary tributary of stream A. construction of bridge footings.	Operation: – Underground culverts and bridge footings.	Operation: Small	Operation: Moderate Adverse

12.7.2 Impacts on Landscape Character Areas

Table 12.7.2 below describes the impact on landscape character areas.

Table 12.7.2 Impacts on Landscape Character Areas Before Mitigation						
LCA Ref.	LCA Notation	Sensitivity to Change	Impact Description	Source of Impact	Magnitude of Change	Significance Threshold
LCA 1	Existing Kau Sai Chau Golf Courses	Medium	Construction: – Loss of natural vegetation and turf grassing cover: 10 ha. – Existing LCA size is 134 ha. – Change of landform; and – Temporary change of landscape quality.	Construction: – Construction of desalination plant and building extensions; – Cutting of hill for desalination plant; – Temporary storage of building and plant material; and – Pipe works along main access road and to existing reservoir.	Construction: Small	Construction: Slight / Moderate Adverse
			Operation: – Loss of vegetation; – Change of hill form at proposed desalination plant; and – Existing buildings will be larger.	Operation: – Desalination plant and building extensions; – Cut of hill for desalination plant; and – Disturbance of land above Irrigation and drainage pipes.	Operation: Small	Operation: Slight / Moderate Adverse
LCA 2	Central Valley	Low	Construction: – Nil.	Construction: – Nil.	Construction: Negligible	Construction: Negligible
			Operation: – Nil.	Operation: – Nil.	Operation: Negligible	Operation: Negligible
LCA 3	Tai Leng Ridge	High	Construction:	Construction:	Construction:	Construction:

			<ul style="list-style-type: none"> - Loss of vegetation: 4 ha; - Existing LCA size is 53 ha; and - Minor change of landform. 	<ul style="list-style-type: none"> - Site formation works; - Construction and use of haul road; and - Vegetation clearance. 	Intermediate	Moderate / Significant Adverse
			<ul style="list-style-type: none"> - Loss of vegetation; - Change of knoll profile; - Loss of natural features. 	<ul style="list-style-type: none"> - New golf course features. 	Operation: Intermediate	Operation: Moderate / Significant Adverse
LCA 4	Yi Leng Ridge / Valley	Low	<ul style="list-style-type: none"> - Vegetation clearance: 11 ha; - Existing LCA size is 51 ha. - Change of landform; - Redevelopment of some eroded slopes. 	<ul style="list-style-type: none"> - Site formation works; - Construction and use of haul road; and - Vegetation clearance. 	Construction: Intermediate	Construction: Slight / Moderate Adverse
			<ul style="list-style-type: none"> - Loss of vegetation; - Change of valley floor and slope profile; - Loss of natural features. 	<ul style="list-style-type: none"> - New golf course features. 	Operation: Intermediate	Operation: Slight / Moderate Adverse
LCA 5	Coastal Ridge	High	<ul style="list-style-type: none"> - Vegetation clearance: 12 ha; - Existing LCA size is 27 ha; and - Change of landform, especially profile of knolls. 	<ul style="list-style-type: none"> - Site formation works; - Construction and use of haul road; and - Vegetation clearance. 	Construction: Intermediate	Construction: Slight / Moderate Adverse
			<ul style="list-style-type: none"> - Loss of vegetation; - Change of valley floor and slope profile; - Loss of natural features. 	<ul style="list-style-type: none"> - New golf course features. 	Operation: Intermediate	Operation: Slight / Moderate Adverse
LCA 6	Coastal Valley	High	<ul style="list-style-type: none"> - Vegetation clearance: 10 ha; - Existing LCA size is 21 ha; - Change of landform; and - Minor alteration of stream banks. 	<ul style="list-style-type: none"> - Site formation works; - Construction and use of haul road; and - Vegetation clearance. 	Construction: Large	Construction: Significant Adverse
			<ul style="list-style-type: none"> - Loss of vegetation; - Change of valley floor and slope profile; - Dominant man-made features; and - Loss of natural features. 	<ul style="list-style-type: none"> - New golf course features; and - Construction of golf course associated infrastructure, including bridge and lake. 	Operation: Intermediate	Operation: Moderate / Significant Adverse
LCA 7	Coastal Hills	High	<ul style="list-style-type: none"> - Loss of vegetation: 17 ha; - Existing LCA size is 40 ha; - Change of landform; and - Operation of temporary pier. 	<ul style="list-style-type: none"> - Site formation works; - Construction and use of haul road, temporary pier temporary storage of building material and construction plant; and - Vegetation clearance. 	Construction: Large	Construction: Significant Adverse
			<ul style="list-style-type: none"> - Loss of vegetation; - Change of valley floor and slope profile; and - Loss of natural features. 	<ul style="list-style-type: none"> - New golf course features; and - Construction of golf course associated infrastructure, including bridge and lake. 	Operation: Large	Operation: Significant Adverse
LCA 8	Lower Coastal Hills	High	<ul style="list-style-type: none"> - Nil. 	<ul style="list-style-type: none"> - Nil. 	Construction: Negligible	Construction: Negligible
			<ul style="list-style-type: none"> - Nil 	<ul style="list-style-type: none"> - Nil. 	Operation: Negligible	Operation: Negligible
LCA 9	Northern Coastal Hills	High	<ul style="list-style-type: none"> - Nil. 	<ul style="list-style-type: none"> - Nil. 	Construction: Negligible	Construction: Negligible
			<ul style="list-style-type: none"> - Nil 	<ul style="list-style-type: none"> - Nil. 	Operation: Negligible	Operation: Negligible
LCA 10	Western coastal Hills	High	<ul style="list-style-type: none"> - Nil. 	<ul style="list-style-type: none"> - Nil. 	Construction: Negligible	Construction: Negligible
			<ul style="list-style-type: none"> - Nil 	<ul style="list-style-type: none"> - Nil. 	Operation: Negligible	Operation: Negligible

12.8 Visual Baseline Conditions

12.8.1 Introduction

This section describes the visual baseline conditions of all visually sensitive receiver (VSR) groups within the visual envelope of the works boundaries. Descriptions are on the visual properties enjoyed by these VSRs.

Drawing Nos. 24213/LVIA/0230, - / 0231 and - / 0232 illustrate the key visual features of amenity value to VSRs. Drawing No. 24213/LVIA/0230 illustrates the works boundaries, the visual envelope and the location of VSRs.

12.8.2 Visual Baseline Conditions

12.8.2.1 VSR 1 – Burial Site on Tai Tau Chau

The northern part of this small island has a large number of graves that are occasionally visited for ceremonial reasons. A government public pier is also located at this end. Footpaths cross the island. Small parts of the new golf course, in particular Hole 5 will be visible from the pier and most graveyard locations. The majority of the works will be visible from the footpaths.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	Medium
Quality of existing views	Medium
Availability of alternative views	High
Amenity of alternative views	Medium to High
Number of VSRs in group	Low
Duration of views to new golf course	Medium
Frequency of views to new golf course	Medium
Degree of visibility	High
Sensitivity Rating	Medium

Table 12.8.2.1.a VSR 1: Sensitivity to Potential Change

12.8.2.2 VSR 2 – Lo Fu Tiu Pai

This VSR group represents a fishing village that is located East of the existing golf course. From Sai Kung, visitors can access the village via boat. Visitor numbers are the highest during public holidays and weekends. Its resident population and visitors can view the existing golf courses as well as the Site of the proposed third golf course. A large extent of the works area will be visible with the nearest viewing distance approximately 500m. Erosion scars in the central valley slopes negatively influence the quality of their view.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	High
Quality of existing views	Medium
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group	Medium
Duration of views to new golf course	Long
Frequency of views to new golf course	High
Degree of visibility	High
Sensitivity Rating	High

Table 12.8.2.2.a VSR 2: Sensitivity to Potential Change

12.8.2.3 VSR 3 – Vessels

VSRs on vessels East of Kau Sai Shau towards the approach of Rocky Harbour and Sai Kung can view the existing golf courses from several vantage points and will also be able to view the third golf course. These VSRs comprise mostly tourists who visit these waters more frequently during public holidays and weekends. Their frequency of views to the golf courses will increase with the third golf course.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	High
Quality of existing views	High
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group	Medium
Duration of views to new golf course	Long
Frequency of views to new golf course	Short
Degree of visibility	High
Sensitivity Rating	High

Table 12.8.2.3.a VSR 3: Sensitivity to Potential Change

12.8.2.4 VSR 4 – Chong Hing Water Sport Centre

From its location directly West of the dam wall of the High Island Reservoir, VSRs can view elevated areas of the existing golf course. The ridgeline of Tai Tau Chau screens views to some degree. The Site of the third golf course will also be partially screened by the same ridgeline. The dam wall of the High Island Reservoir influences the overall quality of views from this location negatively.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	Medium
Quality of existing views	Medium
Availability of alternative views	Medium
Amenity of alternative views	Medium
Number of VSRs in group	Medium
Duration of views to new golf course	Medium

Frequency of views to new golf course	Short
Degree of visibility	Medium
Sensitivity Rating	Medium

Table 12.8.2.4.a VSR 4: Sensitivity to Potential Change

12.8.2.5 VSR 5 – Proposed Golf Course

This VSR group represents future users of the third golf course at the *southern* parts. At present the Site of the third golf course is infrequently used by a limited number of people. Future users will be golf players. Future views from the golf course will vary from elevated locations on knolls to valley floors.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	High
Quality of existing views	High
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group <i>in future</i>	Medium
Duration of views to new golf course	Long
Frequency of views to new golf course	High
Degree of visibility	High
Sensitivity Rating	High

Table 12.8.2.5.a VSR 5: Sensitivity to Potential Change

12.8.2.6 VSR 6 – Existing Golf Course

Golf players on the existing golf courses will be able to view the third golf course from several locations in the *South* of the existing courses. Most of these views will be to the central valley of the third course. The eroded scars on steep valley slopes influence views negatively at present.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	Medium
Quality of existing views	High
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group	Medium
Duration of views to new golf course	Long
Frequency of views to new golf course	Medium
Degree of visibility	High
Sensitivity Rating	Medium

Table 12.8.2.6.a VSR 6: Sensitivity to Potential Change

12.8.2.7 VSR 7 – Proposed Golf Course

This VSR group represents future users of the third golf course at the *northern* parts of the new course (Hole 5 and surroundings). At present the Site of the third golf course is infrequently used by a limited number of people. Future users will be golf players. Future views from the golf course will vary from elevated locations on knolls to valley floors. These views will include views to the existing golf course and Tai Tau Chau.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	High
Quality of existing views	Medium
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group <i>in future</i>	Medium
Duration of views to new golf course	Long
Frequency of views to new golf course	High
Degree of visibility	High
Sensitivity Rating	Medium

Table 12.8.2.7.a VSR 7: Sensitivity to Potential Change

12.8.2.8 VSR 8 – Vessels to Ferry Pier

This VSR group represents users of vessels approaching the existing pier to Kau Sai Chau. The third golf course itself will not be visible to this group, however viewers will see the desalination plant. In general, views are characterised by the existing golf courses, the administration building and the surrounding landscape. Views to the West are of the natural splendour of Sharp Island and to the South of undeveloped parts of Kau Sai Chau. Eroded scars on steep slopes negatively influence views to some of these undeveloped parts.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	Medium
Quality of existing views	Medium
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group	Medium
Duration of views to new golf course	Short
Frequency of views to new golf course	Low
Degree of visibility	Low
Sensitivity Rating	Medium

Table 12.8.2.8.a VSR 8: Sensitivity to Potential Change

12.8.2.9 VSR 9 – Ferry Pier

Visitors to Kau Sai Chau gain access via the pier. The existing golf course is only partially visible from this location. The third golf course itself will not be visible, however parts of the desalination plant will be visible. The present view is characterised by a small natural appearing knoll, the pier deck, a sand holding area and natural slopes with dense vegetation.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	Low
Quality of existing views	Medium
Availability of alternative views	Medium
Amenity of alternative views	Medium
Number of VSRs in group	Medium
Duration of views to new golf course	Short
Frequency of views to new golf course	Low
Degree of visibility	Low
Sensitivity Rating	Low

Table 8.2.9.a VSR 9: Sensitivity to Potential Change

12.8.2.10 VSR 10 – Existing Golf Course

Golf players on the existing golf courses will be able to view the third golf course from several locations in the *West* of the existing courses. This VSR group represents viewers in the *West* of the existing courses. The third golf course itself will not be visible from the *West*, however viewers will be able to see associated works, including parts of the desalination plant and extensions of buildings.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	Medium
Quality of existing views	High
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group	Medium
Duration of views to new golf course	Short
Frequency of views to new golf course	Low
Degree of visibility	Low
Sensitivity Rating	Medium

Table 12.8.2.10.a VSR 10: Sensitivity to Potential Change

12.8.2.11 VSR 11 – YMCA Wong Yi Chau Youth Camp

As explained in Section 12.4 of this LVIA, a number of existing and future VSRs within the bay of Tsam Chuk Wan will receive visual impacts from the proposed works on the third golf course. Of these the YMCA Wong Yi Chau Youth Camp is the nearest to the third golf course, at a distance of approximately 1.5 km. Views from this camp represent the larger VSR group in Tsam Chuk Wan. Views to the third course will be partially screened by the northern parts of Kau Sai Chau and western parts of Tai Tau Chau. Other views are towards the nearby country parks.

Sensitivity of VSR at Baseline Conditions	
Sensitivity Parameter	Rating
Value of existing views	High
Quality of existing views	High
Availability of alternative views	High
Amenity of alternative views	High
Number of VSRs in group	High
Duration of views to new golf course	Short
Frequency of views to new golf course	Low
Degree of visibility	Low
Sensitivity Rating	Medium

Table 12.8.2.11.a VSR 11: Sensitivity to Potential Change

12.9 Visual Impact Assessment

12.9.1 Impacts on VSRs

Table 9.1 below describes the impact of the proposed third golf course on the visually sensitive receivers.

Table 12.9.1 Impacts on Visually Sensitive Receivers Before Mitigation						
VSR Ref.	VSR Notation	Sensitivity to Change	Impact Description	Source of Impact	Magnitude of Change	Significance Threshold
VSR 1	Burial Site on Tai Tau Chau	Medium	Construction: – Vessel movement will change the character of views when delivering building material and plant to site. The viewing distance will be approximately 100m; and – Change in the quality of views. The viewing distance to the nearest construction works will be approximately 500m.	Construction: – Construction vessel movement; – Site formation works; and – Clearance of vegetation.	Construction: Intermediate	Construction: Moderate Adverse
			Operation: – Change of visual character from partially cultivated golf course and natural landscape with to predominantly cultivated golf course with patches of natural landscape. The viewing distance to the nearest permanent works is approximately 600m.	Operation: – New golf course features.	Operation: Small	Operation: Slight / Moderate Adverse
VSR 2	Lo Fu Tiu Pai	High	Construction: – Vessel movement will change the character of views when delivering building material and plant to site; The viewing distance will be approximately 300m; and – Change in the quality of views. The viewing distance to the temporary barging point will be approximately 500m.	Construction: – Construction vessel movement; – Site formation works; and – Clearance of vegetation.	Construction: Large	Construction: Significant Adverse
			Operation: – Change of visual character from natural landscape with eroded slopes to cultivated golf course. The viewing distance to the nearest permanent golf course features will be approximately 600m.	Operation: – New golf course features.	Operation: Intermediate	Operation: Moderate / Significant Adverse
VSR 3	Vessel	High	Construction: – Vessel movement when delivering building material and plant to site will affect the character of views. Tourist vessels will use the same route than construction vessels and the viewing distance could be closer than 100m; and – Change of quality of views. The viewing distance to the nearest works areas will be approximately 500m	Construction: – Construction vessel movement; – Site formation works; and – Clearance of vegetation.	Construction: Large	Construction: Significant Adverse
			Operation: – Change of visual character from natural landscape to cultivated golf course. The viewing distance to the nearest permanent golf course features will be approximately 500m.	Operation: – New golf course features.	Operation: Intermediate	Operation: Moderate / Significant Adverse
VSR 4	Chong Hing Water Sports Centre	Medium	Construction: – Vessel movement will change the character of views when delivering building material and plant to site at a distance of approximately 1.4 km; and – The temporary barging point will be viewed at a distance of approximately 1.8 km and will affect the quality of views.	Construction: – Construction vessel movement; – Site formation works; and – Clearance of vegetation.	Construction: Small	Construction: Slight / Moderate Adverse
			Operation: – Change of visual character from natural landscape to cultivated golf course. The nearest views of permanent works will be 1.9km.	Operation: – New golf course features.	Operation: Negligible	Operation: Negligible
VSR 5	Proposed Golf Course (South)	High	Construction: – Nil. Construction works will not affect future VSRs as they will only become VSRs during the operation phase.	Construction: – Nil.	Construction: Negligible	Construction: Negligible
			Operation: – Cultivated golf course features and remnants of the natural landscape will compose the future character of the site. Future	Operation: – New golf course features.	Operation: Small	Operation: Moderate Adverse

			VSRs will view this type of landscape. The works will not change their future view, but rather comprise it.			
VSR 6	Existing Golf Course (South)	Medium	Construction: – Change of view quality and character by site formation works that will be carried within less than 50m from viewpoints.	Construction: – Site formation works; – Construction pipe works and pumping station; and – Vegetation clearance.	Construction: Large	Construction: Moderate / Significant Adverse
			Operation: – Change of view character and quality. The nearest permanent new golf course works will be less than 50m away from the existing golf course. The character will however be similar to that of the existing course.	Operation: – Minor replacement of vegetation.	Operation: Intermediate	Operation: Moderate Adverse
VSR 7	Proposed Golf Course (North)	Medium	Construction: – Nil. Construction works will not affect future VSRs as they will only become VSRs during the operation phase.	Construction: – Nil.	Construction: Negligible	Construction: Negligible
			Operation: – Cultivated golf course features and remnants of the natural landscape will compose the future character of the site. Future VSRs will view this type of landscape. The works will not change their future view, but rather comprise it.	Operation: – New golf course features.	Operation: Small	Operation: Slight / Moderate Adverse
VSR 8	Vessel to Pier	Medium	Construction: – The character of views will be altered by construction activities. Public and private vessels will use the same route as construction vessel and at times be within less than 100m from them. – Minor construction activities.	Construction: – Construction vessels; – Site formation works; – Construction pipe works and pumping station; and – Vegetation clearance.	Construction: Small	Construction: Slight / Moderate Adverse
			Operation: – Change of view character due to the loss of vegetation and site formation works.	Operation: – Views to salt water pumping station and cut in hill of desalination plant.	Operation: Intermediate	Operation: Slight / Moderate Adverse
VSR 9	Ferry Pier	Low	Construction: – Vessel movement when delivering building material and plant to site; – Site formation works, especially for the construction of the desalination plant and salt water pumping station. These facilities will be located within less than 20m from the nearest viewpoints; – Delivery of materials for the construction of building extensions.	Construction: – Site formation works; and – Clearance of vegetation.	Construction: Intermediate	Construction: Slight / Moderate Adverse
			Operation: – Change of visual character.	Operation: – New golf course features.	Operation: Small	Operation: Slight / Moderate Adverse
VSR 10	Existing Golf course (West)	Medium	Construction: – Change of visual character, especially due to the construction of the desalination plant, which require a cut in the small hill behind the existing pier.	Construction: – Site formation works; – Construction pipe works and pumping station; – Construction of desalination plant; and – Vegetation clearance.	Construction: Small	Construction: Slight / Moderate Adverse
			Operation: – Change in visual character due the cut in the hill behind the pier. The desalination plant will not be visible from this location.	Operation: – The cut in the hill of the desalination plant.	Operation: Small	Operation: Slight / Moderate Adverse
VSR 11	YMCA Wong Yi Chau Youth Camp	Medium	Construction: – Vessel movement when delivering building material and plant to site will affect the character of views. The nearest viewing distance to construction vessels will be approximately 400m. – Change of quality of views. The viewing distance to the nearest works areas will be approximately 1.7 km.	Construction: – Construction vessel movement; – Site formation works; and – Clearance of vegetation.	Construction: Intermediate	Construction: Moderate Adverse
			Operation: – Change of visual character from natural landscape to cultivated golf course. The viewing distance to the nearest permanent golf course features will be approximately 1.7km.	Operation: – New golf course features.	Operation: Small	Operation: Slight / Moderate Adverse

12.10 Recommended Landscape and Visual Impact Mitigation Measures

12.10.1 Introduction

In order to mitigate landscape and visual impacts, mitigation measures will be implemented. These can be categorised in the following groups:

- § Construction areas;
- § Tree planting;
- § Shrub and groundcover planting;
- § Engineering infrastructure: bridges, desalination plant, pumping stations and water tanks; and
- § Buildings: extensions of existing, halfway houses and rain shelters.

12.10.2 Standards, Legislation and Guidelines

The landscape and visual mitigation design has been carried out with respect to the following requirements:

- § Hong Kong Planning Standards and Guidelines;
- § Application for Tree Felling or Transplanting for private projects - LAO Practice Note No. 8/2002;
- § Management and Maintenance of Natural Vegetation and Landscape Works, and Tree Preservation – WBTC No. 14/2002;
- § Maintenance of Vegetation and Hard Landscape Features – ETWB TCW No. 2/2004;
- § Management of Man-made Slopes and Emergency Repair on Stability of Land – WBTC No. 26/99;
- § Control of Visual Impact on Slopes – WBTC 17/2000;
- § Technical Guidelines on Landscape Treatment and Bio-engineering form Man-made Slopes and Retaining Walls – GEO Publication No. 1/2000; and
- § EIAO Guidance Note No. 8/2002.

12.10.3 Mitigation Measures

Construction Areas

- § MC 1: Site offices and construction yards:
 - Site offices and the construction yard shall be decommissioned after construction.
 - Haul roads shall be decommissioned and restored with hydroseeding works after construction.
- § MC 2: Height of site offices:
 - The height of site offices shall be controlled in order to avoid visual impacts.
- § MC 3: Hoarding and screening:
 - Where practical the site offices areas, construction yards and storage areas shall be screened using olive green coated hoarding or vegetation around the peripheries of the works area until the completion of relevant construction phases.
- § MC 4: Construction plant and building material:
 - Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical;
 - Excess materials shall be removed from site as soon as practical;
 - All construction plant shall be removed from site upon completion of construction works.
- § MC 5: Construction light:
 - To be oriented away from the viewing location of VSRs; and
 - All lighting shall have frosted diffusers and reflective covers.
- § MC 6: Vegetation:
 - Temporary construction sites shall be restored to standards as good as, or better than, the original condition. In this respect, areas that are not covered by golf course grassing works shall be hydro seeded;
 - The potential for soil erosion shall be reduced at the construction stage by minimizing the extent of vegetation disturbance on site and providing a protective cover over exposed ground; and
 - No plant or building materials shall be stored under the dripline of retained trees and no vehicle movement or other construction activities like washing, concrete mixing etc shall be carried out under the dripline of trees.

Tree Preservation, Planting and Buffer Areas

- § MT 1: Compensation for losses:
 - The tree compensation to tree loss ratio shall be between 2:1 and 3:1;

At least 700 new trees shall have be of light standard or larger size To compensate for the loss of trees a total number of 967 trees will be planted; 733 of these trees will be between light standard and heavy standard size. The majority of compensatory tree planting will be from species that occur on the existing site. With respect to the number of trees, the loss to compensation ratio will be approximate 1:3. A summary of tree survey report is shown in Appendix A12.1.
- § MT 2: The majority of compensation species shall comprise species that already occurs within the LIA boundaries;
- § MT 3: Where practical, trees that require removal shall be transplanted on Site;
- § MT 4: Planting Works:
 - New trees shall be planted in groups in order to screen visual impacts and to provide additional shade at the administration building, rainshelters and halfway houses.
- § MT 5: Tree Planting on Slopes:
 - New slopes with a gradient larger than 30° shall have whip tree planting.
 - Such whip trees shall comprise tree species with shrub-like characteristics, such as *Gordonia axillaries* (大頭茶) and *Raphiolepis indica* (??梅);
- § MT 6: Tree planting works at the hill where the desalination plant will be located shall be carefully positioned in order to represent its original profile.
- § MT 7: Tree Preservation:
 - No tree shall be transplanted or felled without prior approval by relevant Government departments in accordance with WBTC 24/94, WBTC 14/2002 and ETWB 2/2004;
 - All trees that are marked for retention shall be fenced off with a 1.2m high fence around the dripline of trees or larger area;
 - Transplant preparation works shall be carried as soon as possible after commencement of construction. Rootball and crown pruning shall be carried out over at least 1 month.
- § MT 8: Buffer Areas
 - For streams the width of the buffer zones will be 20m from the stream bank. The only exception would be the buffer zone in the reach of upper tributary of stream B lying between the two parts of Hole 10, where the buffer will zone will be 5m, the dry tributary of stream B that will be converted to an underground culvert and the secondary tributary of stream A that will also be converted to an underground culvert.
 - No construction activities will be allowed in the buffer zones, except for site formation works, which are required for the construction of bridge footings.

Shrub and Ground Cover Planting

- § MS 1: Bulk hydroseeding:
 - Bulk site formation works shall be followed with bulk hydroseeding as soon as practical.
- § MS 2: Grassing:
 - In the case of golf course areas, grassing shall be carried out as soon as practical after sanding and shaping; and
 - Sanding, shaping and grassing works shall be phased in sections.
- § MS 3: Restoration:
 - In the case of residual areas that were disturbed during construction, which will not be part of the golf course areas, detailed site formation works and shaping shall be followed by hydroseeding and shrub planting as soon as practical; and
 - The hydroseeding mix shall be composed of the following grass species: *Erograstic curvula Lolium Perenne Neyraudia reynaudiana Pennisetum purpureum*; and the following shrub / small tree species: *Gordonia axillaries, Rhaphiolepis indica* and *Rhodomyrtus tomentosa*.

Engineering infrastructure: bridges, desalination plant, pumping stations and water tanks

- § ME 1: Screening:
 - Bridges and pumping stations shall be screened by tree and shrub planting; and
 - Retaining wall shall be covered with climber plants.
- § ME 2: Abutments of bridges shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape;
- § ME 3: Above-ground walls and foundations of pumping stations shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape;
- § ME 4: Above-ground covers of pumping stations shall have an olive green coating;
- § ME 5: The desalination plant shall be located within the hill behind the pier. Slope cutting of this hill shall have a natural appearance with hydroseeding cover;
- § ME 6: Water tanks shall be located below surface level. Above-ground components shall be coated in olive green.

Buildings: extensions of existing, halfway houses and rain shelters

- § MB 1: Extensions of the clubhouse shall have a surface cover that is in visual harmony with the administration building itself;
- § MB 2: Shrub planting shall be implemented in front of the new golf cart parking area in order to screen low level views;
- § MB 3: Tree and shrub planting shall be implemented on the peripheries of the maintenance building and its extensions; and
- § MB 4: Halfway houses and rain shelters shall be surfaced with either stone or beige and olive green paint.

12.11 Residual Landscape Impacts

12.11.1 Introduction

This section describes the landscape impacts that will remain after the implementation of mitigation measures.

12.11.2 Residual Landscape Resource Impacts

Table 12.11.2 below describes the residual impacts on landscape resources.

LR Ref.	LR Notation	Impact Before Mitigation	Proposed Mitigation Measures	Impact After Mitigation
LR 1	Fall Shrubland	Construction: Moderate Adverse	Construction: MS 1 MS 3 MT 7	Construction: Moderate Adverse
		Operation: Moderate Adverse	Operation: MS 1 MS 3 MT 7	Operation: Slight / Moderate Adverse
LR 2	Shrubland	Construction: Moderate Adverse	Construction: MS 1 MS 3 MT 7	Construction: Moderate Adverse
		Operation: Moderate Adverse	Operation: MS 1 MS 3 MT 7	Operation: Slight / Moderate Adverse
LR 3	Developing woodland and trees	Construction: Slight Adverse	Construction: MT 1 MT 2 MT 3 MT 4 MT 5 MT 6 MT 7	Construction: Slight Adverse
		Operation: Slight	Operation: MT 1	Operation: Slight / Moderate

		Adverse	MT 2 MT 3 MT 4 MT 5 MT 6 MT 7	Beneficial
				Remark: The tree stock will increase and be diversified as a result of tree planting works.
LR 4	Marches	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible
LR 5	Reservoir	Construction: Negligible	Construction: MS 1 MS 3	Construction: Negligible
		Operation: Negligible	Operation: MS 1 MS 3	Operation: Negligible
LR 6	Mangroves	Construction: Negligible	Construction: MT 7	Construction: Negligible
		Operation: Negligible	Operation: MT 7	Operation: Negligible
LR 7	Eroded slopes	Construction: Slight / Moderate Beneficial	Construction: MT 5 MS 1 MS 2 MS 3	Construction: Slight / Moderate Beneficial
		Operation: Slight / moderate Beneficial	Operation: MT 5 MS 1 MS 2 MS 3	Operation: Moderate Beneficial
				Remarks: Restoration of the slopes will improve the overall visual appearance and prevent future losses of vegetation due to erosion.
LR 8	Sandy Beaches	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible
LR 9	Rocky Shorelines	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible
LR 10	Grassing areas of existing golf course	Construction: Slight / Moderate Adverse	Construction: MC 6 MS 1 MS 2 MT 7	Construction: Slight Adverse
		Operation: Negligible	Operation: MS 1 MS 2 MT 7	Operation: Negligible
				Remark: Grassing works will commence after completion of shaping works. Shaping works will be carried out in sections. Sectional works will be programmed over the course of construction activities. Therefore some grassing areas will be implemented, by the time shaping works commence in other areas.
LR 11	Stream	Construction: Moderate Adverse	Construction: MT 7 MT 8	Construction: Moderate Adverse
		Operation: Moderate Adverse	Operation: MT 8	Operation: Moderate Adverse
				Remark: a) Mitigation measures aim to protect the remaining streams and watercourses. Realignment of existing streams and the creation of new streams are impractical. b) Existing trees located on stream banks will be preserved with the exception of trees that will be removed due to bridge footing works. Compensation will be carried out in the case of losses.

12.11.3 Residual Landscape Character Area Impacts

Table 12.11.3 below describes the residual impacts on landscape character areas.

Table 12.11.3 Impacts on Landscape Character Areas Before and After Mitigation				
LCA Ref.	LR Notation	Impact Before Mitigation	Proposed Mitigation Measures	Impact After Mitigation
LCA 1	Existing Kau Sai Chau Golf Courses	Construction: Slight / Moderate Adverse	Construction: MC 6 MT 1 MT 2 MT 3 MT 4 MT 6 MS 1 MS 2 MS 3 ME 3 ME 4 ME 5 MB 1 MB 2 MB 3	Construction: Slight / Moderate Adverse Remarks: Mitigation measures will serve to minimise some construction impacts, however due to the extent of required site formation works, the affect of such mitigation measures will be minimal.
		Operation: Slight / Moderate Adverse	Operation: MC 6 MT 1 MT 2 MT 3 MT 4 MT 6 MS 1 MS 2 MS 3 ME 3 ME 4 ME 5 MB 1 MB 2 MB 3	Operation: Slight Adverse
LCA 2	Central Valley	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible
LCA 3	Tai Leng Ridge	Construction: Moderate / Significant Adverse	Construction: MC 6 MT 1 MT 2 MT 3 MT 4 MT 5 MT 6 MS 1 MS 2 MS 3 MB 4	Construction: Moderate Adverse
		Operation: Moderate / Significant Adverse	Operation: MT 1 MT 2 MT 3 MT 4 MT 5 MT 6 MS 1 MS 2 MS 3 MB 4	Operation: Moderate Adverse
LCA 4	Yi Leng Ridge / Valley	Construction: Slight / Moderate Adverse	Construction: MC 1 – MC6 MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 ME 2 ME 3	Construction: Slight Adverse

			ME 4 ME 6 MB 4	
		Operation: Slight / Moderate Adverse	Operation: MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 ME 2 ME 3 ME 4 ME 6 MB 4	Operation: Slight Adverse Remarks: Mitigation measures will restore the original character of this LCA to some degree. Disturbed residual areas will eventually be covered by natural vegetation. However, the future character will be defined by cultivated turf grassing areas and natural landscape features.
LCA 5	Coastal Ridge	Construction: Slight / Moderate Adverse	Construction: MC 6 MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 3 ME 4 ME 6 MB 4	Construction: Slight / Moderate Adverse Remarks: Construction phase mitigation measure will minimise the extent of impacts to some degree. Impacts will be extensive during the site formation period, which will be temporary. Once bulk hydroseeding has established, the impact on this LCA will decrease to Slight Adverse.
		Operation: Slight / Moderate Adverse	Operation: MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 3 ME 4 ME 6 MB 4	Operation: Slight adverse
LCA 6	Coastal Valley	Construction: Significant Adverse	Construction: MC 6 MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 3 ME 4 ME 6 MB 4	Construction: Moderate / Significant Adverse
		Operation: Moderate / Significant Adverse	Operation: MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 3 ME 4 ME 6 MB 4	Operation: Slight / Moderate Beneficial Remarks: Slope stabilisation works will improve the character of this LCA. The character will be transformed from disturbed natural to cultivated / natural.
LCA 7	Coastal Hills	Construction: Significant Adverse	Construction: MC 1 - 6 MT 1 MT 2 MT 3 MT 4 MT 5 MS 1	Construction: Moderate / Significant Adverse

			MS 2 MS 3 ME 3 ME 4 ME 6 MB 4	
		Operation: Significant Adverse	Operation: MT 1 MT 2 MT 3 MT 4 MT 5 MS 1 MS 2 MS 3 ME 3 ME 4 ME 6 MB 4	Operation: Moderate Adverse
LCA 8	Lower Coastal Hills	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible
LCA 9	Northern Coastal Hills	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible
LCA 10	Western coastal Hills	Construction: Negligible	Construction: Nil	Construction: Negligible
		Operation: Negligible	Operation: Nil	Operation: Negligible

12.12 Residual Visual Impacts

12.12.1 Introduction

This section describes the visual impacts that will remain after the implementation of mitigation measures.

12.12.2 Residual Impacts on Visually Sensitive Receivers

Table 12.12.2 Below describes the impacts on VRS after the implementation of mitigation measures.

Table 12.12.2 Impacts on Visually Sensitive Receivers Before and After Mitigation				
VSR Ref.	VSR Notation	Impact Before Mitigation	Proposed Mitigation Measures	Impact After Mitigation
VSR 1	Burial Site on Tai Tau Chau	Construction: Moderate Adverse	Construction: MC 1 MC 2 MC 3 MC 4 MC 5 MC 6 MS 1 MS 2 MS 3	Construction: Slight / Moderate Adverse
		Operation: Slight / Moderate Adverse	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 MB 4	Operation: Slight / Moderate Adverse
VSR 2	Lo Fu Tiu Pai	Construction: Significant Adverse	Construction: MC 1 MC 2 MC 3 MC 4 MC 5 MC 6 MS 1 MS 2 MS 3	Construction: Moderate Adverse
		Operation: Moderate / Significant Adverse	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 MB 4	Operation: Moderate Adverse
VSR 3	Vessel	Construction: Significant Adverse	Construction: MC 1 MC 2 MC 3 MC 4 MC 5 MC 6 MS 1 MS 2 MS 3	Construction: Moderate Adverse
		Operation: Moderate / Significant Adverse	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 MB 1 MB 4	Operation: Moderate Adverse
VSR 4	Chong Hing Water Sports Centre	Construction: Slight / Moderate Adverse	Construction: MC 1 MC 2 MC 3 MC 4 MC 5 MC 6 MS 1 MS 2 MS 3	Construction: Slight Adverse
		Operation: Negligible	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 MB 4	Operation: Negligible
VSR 5	Proposed Golf Course (South)	Construction: Negligible	Construction: Nil	Construction: Negligible

				Remarks: No mitigation is required during the construction phase, since future VSRs will only exist after construction phase.
		Operation: Moderate Adverse	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 ME 2 ME 3 ME 4 ME 6 MB 4	Operation: Slight Adverse
VSR 6	Existing Golf Course (South)	Construction: Moderate / Significant Adverse	Construction: MC 1 MC 2 MC 3 MC 4 MC 5 MC 6 MS 1 MS 2 MS 3	Construction: Moderate Adverse Remarks: After bulk hydroseeding works the visual impacts will be greatly reduced. Moderate adverse impacts will therefore only present during bulk site formation works.
		Operation: Moderate Adverse	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 ME 2 ME 3 ME 4 ME 6 MB 4	Operation: Slight / Moderate Adverse
VSR 7	Proposed Golf Course (North)	Construction: Negligible	Construction: Nil	Construction: Negligible Remarks: No mitigation is required, since future VSRs will only exist after completion of the construction phase.
		Operation: Slight Moderate Adverse	Operation: MT 4 MT 5 MS 2 MS 3 ME 1 ME 2 ME 3 ME 4 MB 1 MB 3 MB 4	Operation: Slight Adverse
VSR 8	Vessel to Pier	Construction: Slight / Moderate Adverse	Construction: MC 4 MC 5 MS 1 MS 3	Construction: Slight / Moderate Adverse Remarks: Mitigation measures will minimise the degree of impacts to some degree during the construction phase. However complete mitigation is not practical.
		Operation: Slight / Moderate Adverse	Operation: MT 5 MT 6 ME 1 ME 3 ME 4 ME 5	Operation: Negligible
VSR 9	Ferry Pier	Construction: Slight / Moderate Adverse	Construction: MC 4 MC 5 MS 1 MS 3	Construction: Slight Adverse
		Operation: Slight / Moderate Adverse	Operation: MT 5 MT 6 ME 1 ME 3 ME 4 ME 5	Operation: Slight Adverse

VSR 10	Existing golf course (West)	Construction: Slight / Moderate Adverse	Construction: MC 4 MC 5 MS 1 MS 3	Construction: Slight Adverse
		Operation: Slight / Moderate Adverse	Operation: MT 5 MT 6 ME 1 ME 3 ME 4 ME 5 MB 1 MB 2 MB 3 MB 4	Operation: Negligible
VSR 11	YMCA Wong Yi Chau Youth Camp	Construction: Moderate Adverse	Construction: MC 1 MC 2 MC 3 MC 4 MC 5 MC 6 MS 1 MS 2 MS 3	Construction: Negligible
		Operation: Slight / Moderate Adverse	Operation: MT 4 MT 5 MS 1 MS 2 MS 3 ME 1 MB 4	Operation: Negligible

12.13 Environmental Monitoring and Audit Manual

Table 12.13.1 below defines the environmental management and audit criteria.

Table 12.13.1 Environmental Monitoring and Audit Reference Table							
EM&A Ref.	Environmental Protection Measure	Location	Implementation Agent	Implementation Stage			Relevant Legislation and Guidelines
				Design	Construction	Operation	
MC 1	Site offices and construction yards: - Site offices and the construction yard shall be decommissioned after construction. - Haul roads shall be decommissioned and restored with hydroseeding works after construction.	All site offices	All contractor		Yes		
MC 2	Height of site offices: - The height of site offices shall be controlled in order to avoid visual impacts.	All site offices	All contractor		Yes		
MC 3	Hoarding and screening: - Where practical the site offices areas, construction yards and storage areas shall be screened using olive green coated hoarding or vegetation around the peripheries of the works area until the completion of relevant construction phases.	All site office and construction yard areas.	All contractor		Yes		EIAO Guidance Note No. 8/2002
MC 4	Construction plant and building material: - Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical; - Excess materials shall be removed from site as soon as practical; - All construction plant shall be removed from site upon completion of construction works.	In all construction yards.	All contractor		Yes		EIAO Guidance Note No. 8/2002
MC 5	Construction light: - To be oriented away from the viewing location of VSRs; and - All lighting shall have frosted diffusers and reflective covers. - While construction at night might be required from time to time, this should be controlled and minimised as	All construction lights.	All contractor		Yes		

	far as practical.						
MC 6	Vegetation: - Temporary construction sites shall be restored to standards as good as, or better than, the original condition. In this respect, areas that are not covered by golf course grassing works shall be hydro seeded; - The potential for soil erosion shall be reduced at the construction stage by minimizing the extent of vegetation disturbance on site and providing a protective cover over exposed ground; and - No plant or building materials shall be stored under the dripline of retained trees and no vehicle movement or other construction activities like washing, concrete mixing etc shall be carried out under the dripline of trees.	All temporary construction sites.	All contractor		Yes		
MT 1	Compensation for losses: - The tree compensation to tree loss ratio shall be between 2:1 and 3:1; - At least 700 new trees shall have be of light standard or larger size.	As shown on mitigation measures plans.	All contractor		Yes	Yes	LAO Practice Note No. 8/2002 EIAO Guidance Note No. 8/2002
MT 2	The majority of compensation species shall comprise species that already occurs within the LIA boundaries;	General.	All contractor		Yes	Yes	LAO Practice Note No. 8/2002 EIAO Guidance Note No. 8/2002
MT 3	Where practical, trees that require removal shall be transplanted on Site;	General.	All contractor		Yes	Yes	LAO Practice Note No. 8/2002 EIAO Guidance Note No. 8/2002
MT 4	New trees shall be planted in groups in order to screen visual impacts and to provide additional shade at the administration building, rain shelters and halfway houses.	As shown on mitigation measure plans.	All contractor		Yes	Yes	LAO Practice Note No. 8/2002 EIAO Guidance Note No. 8/2002
MT 5	Tree Planting on Slopes: - New slopes with a gradient larger than 30° shall have whip tree planting. - Such whip trees shall comprise tree species with shrub-like characteristics, such as <i>Gordonia axillaries</i> (大頭茶) and <i>Raphiolepis indica</i> (??梅).	General.	All contractor		Yes	Yes	LAO Practice Note No. 8/2002 EIAO Guidance Note No. 8/2002
MT 6	Tree planting works at the hill where the desalination plant will be located shall be carefully positioned in order to represent its original profile.	At the desalination plant.	All contractor		Yes	Yes	LAO Practice Note No. 8/2002 EIAO Guidance Note No. 8/2002
MT 7	Tree Preservation: - No tree shall be transplanted or felled without prior approval by relevant Government departments in accordance with WBTC 24/94, WBTC 14/2002 and ETWB 2/2004; - All trees that are marked for retention shall be fenced off with a 1.2m high fence around the dripline of trees or larger area; - Transplant preparation works shall be carried as soon as possible after commencement of construction. Rootball and crown pruning shall be carried out over at least 1 month.	All areas with existing trees	All contractor		Yes	Yes	WBTC 24/94 WBTC 14/2002 ETWB 2/2004
MT 8	Buffer Areas - For streams the width of the buffer zones will be 20m from the stream bank. The only exception would be the buffer zone in the reach of upper tributary of stream B lying between the two parts of Hole 10, where the buffer will zone will be 5m, the dry tributary of stream B that will be converted to an underground culvert and the secondary tributary of stream A that will also be converted to an underground culvert. - No construction activities will be allowed in the buffer zones, except for site formation works, which are required for the construction of bridge footings.	At streams	All contractor		Yes	Yes	
MS 1	Bulk hydroseeding: - Bulk site formation works shall be followed with bulk hydroseeding as soon as practical.	General.	All contractor		Yes		EIAO Guidance Note No. 8/2002
MS 2	Grassing: - In the case of golf course areas, grassing shall be carried out as soon as practical after sanding and shaping; and - Sanding, shaping and grassing works shall be phased in sections.	At proposed grassing areas.	All contractor		Yes		EIAO Guidance Note No. 8/2002
MS 3	Restoration: - In the case of residual areas that were disturbed during construction, which will not be part of the golf course areas, detailed site formation works and shaping shall be followed by hydroseeding and shrub planting as soon as practical; and - The hydroseeding mix shall be composed of the following grass species: <i>Eragrostis curvula</i> <i>Lolium Perenne</i> <i>Neyraudia reynaudiana</i> <i>Pennisetum purpureum</i> ; and the following shrub / small tree species: <i>Gordonia axillaries</i> , <i>Rhaphiolepis indica</i> and <i>Rhodomymrtus</i>	At all residual areas.	All contractor		Yes		EIAO Guidance Note No. 8/2002

	tomentosa.						
ME 1	Screening: - Bridges and pumping stations shall be screened by tree and shrub planting; and - Retaining wall shall be covered with climber plants.	All bridges and pumping stations.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
ME 2	Abutments of bridges shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape;	All bridges.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
ME 3	Above-ground walls and foundations of pumping stations shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape.	All pumping stations.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
ME 4	Above-ground covers of pumping stations shall have an olive green coating.	All pumping stations.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
ME 5	The desalination plant shall be located within the hill behind the pier. Slope cutting of this hill shall have a natural appearance with hydroseeding cover.	As shown on the mitigation measure plans.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
ME 6	Water tanks shall be located below surface level. Above-ground components shall be coated in olive green.	All water tanks.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
MB 1	Extensions of the clubhouse shall have a surface cover that is in visual harmony with the clubhouse itself.	All new extensions of the clubhouse.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
MB 2	Shrub planting shall be implemented in front of the new golf cart parking area in order to screen low-level views.	The new golf cart parking area.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
MB 3	Tree and shrub planting shall be implemented on the peripheries of the maintenance building and its extensions.	At the maintenance building.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002
MB 4	Halfway houses and rain shelters shall be surfaced with either stone or beige and olive green paint.	At all halfway houses and rain shelters.	All contractor		Yes	Yes	EIAO Guidance Note No. 8/2002

12.14 Provisional Programme of Landscape Works

The construction stage will commence in the last quarter of 2005 and is scheduled for completion in mid 2007.

Tree felling and transplantation works will be carried out by early 2006 during the first phase of site formation works.

Tree planting works, golf course grassing, shrub planting and hydroseeding works will be carried out in phases after site formation works of any particular phase.

12.15 Funding, Implementation, Management and Maintenance of Landscape Works

The Jockey Club Kau Sai Chau Public Golf Course Limited will be the sole agent responsible for the funding, implementation, management and maintenance of landscape works. It will employ a main contractor to carry out the construction works together with its specialist domestic and nominated sub-contractors.

12.16 Summary and Conclusions

The overall impact of the third golf course on the landscape and visual environments is acceptable with mitigation measures.

The impact on landscape resources after mitigation is in general acceptable. The most extensive adverse impact will be on tall shrubland and shrubland, which will for the most be replaced by grassing areas of the new golf course. Beneficial impacts on landscape resources will result from the restoration of eroded slopes. All affected areas will be covered with golf course turf or hydroseeding. The hydroseeding areas will be managed to allow for the reestablishment tall shrubland and shrubland. The hydroseeding mix, which will comprise of native shrubs with grass seeds will encourage this process.

The landscape character will be transformed from one that is essentially a natural hillside – valley landscape to one that has a golf course character with natural features. The overall impact of this transformation will be acceptable, since the major geomorphologic features will stay in tact.

Impacts on visually sensitive receivers will be acceptable. The majority of VSR groups are located at greater than 1 km distances away from the development. Golf players of the existing golf course will be the nearest VSR and will be affected during construction phase. Beneficial impacts will result from the restoration of eroded slopes.