Land Information New Zealand
Toitū te whenua

# Reclamation Valuations

Crown Property Management

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# Introduction

1 The Marine and Coastal Area Act 2011 (MACA) came into force on 31 March 2011. The legislation includes provision for coastal reclamations to be vested in Crown ownership and then transferred onto private ownership.

2 The vesting process is applicable to both existing and proposed reclamations.

3 An important component of the vesting process is the setting of a value for the purposes of informing the Minister's determination on consideration for either pre reclamation sea bed land or existing reclamations. This paper sets out the methodology to be followed when assessing values for reclamation land under MACA.

# Establishment of Coastal Reclamations

Coastal reclamations are an established feature on the NZ landscape predominantly in areas adjoining commercial and industrial development or residential settlements. These reclamations have often occurred outside of the normal resource management process and to varying states of legality. Nevertheless there are likely to be a number of existing reclamations that will require valuation under MACA for legal ownership to transfer from the Crown to the acquiring owner (the developer).

The MACA legislation also provides an opportunity for new reclamations to be developed and ultimately vest ownership in private title. In these cases a valuation of the sea bed land is required for MACA purposes.

# Valuation Principles

This paper considers the appropriate valuation methodology for both proposed and existing reclamations. A critical assumption is that all reclamations are to be valued in conjunction with and as an addition to the land adjoining which is acquiring the reclamation. Valuations should be based on the new, combined area assuming that one computer freehold interest will be issued on completion.

Reclamations are a form of "real estate" and the theory holds that ownership of real estate has value because there is a market that deals in the rights which arise from this ownership. In the case of property these ownership rights include the right to sell; grant a lease or partial interest; build or demolish improvements; grant access to certain persons and not others; use the property for any lawful purpose; and finally the right not to exercise any of these rights.

The valuation approaches outlined in this paper are based on the equivalent of full freehold computer interest with no detrimental covenants or restrictions on use.

The valuation profession in New Zealand is regulated in accordance with the Valuers Act 1948. This Act provides for amongst other things, the New Zealand Institute of Valuers (NZIV) and Registered Valuers. It is recommended that reclamation valuations based on IVS 1 Market Value be undertaken by a registered valuer.

The NZIV forms part of the Property Institute of New Zealand (PINZ) which produces best practice professional standards for valuations. These standards are known as the Australia and New Zealand Property Standards and are effective from 1 October 2009. They adopt the International Standards (IVS) and Guidance Notes of the International Valuation Standards Committee (IVSC). Where there are departures from or differences in application of IVSC in either Australia or New Zealand an appropriate note is included in the IVSC documents.

Market Value is the generally accepted basis for real property valuation assessments and this is defined in the Australia and New Zealand Property Standards (IVS 1) as "the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgably, prudently and without compulsion".

Valuation is evidence based and initially assessed with reference to comparable market transactions. The rarer the property the harder the evidence is to obtain and thus the more subjective and arguable the value assessed becomes. Based on a volume of transactions test there is generally no open market for foreshore and seabed land although the legislative changes from the previous Foreshore & Seabed Act to the current MACA may not alter this situation.

# Valuation Methodology Research

## Proposed Reclamations (Sea Bed Valuations) Research

An appropriate valuation methodology for proposed reclamations has been a historically challenging exercise which has been subject to much discussion. Despite being more prominent on New Zealand coastlines, reclamations are still relatively rarely undertaken and minimal direct comparable evidence of sea bed sales exists. As a result, the valuation methods that are applied tend to rely on a logical application of valuation theory, hypotheses and subjectivity.

Research material is also limited however the following summarises an Australian legal decision and provides details of other approaches used in similar jurisdictions.

**A) Hegira Ltd V Minister for Natural Resources and Mines [2005] QLC 0051 Land Court of Queensland Case.**

This case involved the valuation of the unimproved value (value of the land as if no improvements had been made to it such as retaining, drainage, levelling etc) of reclaimed land to establish a purchase price to transfer ownership to Hegira Ltd. The unimproved land was akin to coastal land in that it was low-lying tidal flats, timbered with mangroves and tea trees. Development of the land required excavation of canals, with the spoil used for filling and pre-loading the reclaimed areas.

The court looked closely at the planning restrictions on the land as a critical input into determining the use the land could be put to following reclamation. The valuers agreed on the appropriate method for assessing the subject land was the "before and after" method to assess the added value of the new land to the existing adjoining residential development site. They applied a hypothetical development valuation approach to determine the value of the entire land holding both before and after the reclamation. The purpose of the reclamation in this case was to create extra residential sections for sale on the open market which necessitated an assessment by the valuers of selling costs, profit and risk, development costs, interest (opportunity cost) and acquisition costs.

In addition to the valuation methodology determined by the court there was also an interesting test of market value for an adjoining owner where due to the physical characteristics of the reclaimed land, that adjoining owner would be the only viable purchaser of it. Hegira Ltd argued that in these circumstances there should be a further discount of 50%. The judgment referenced a Privy Council decision that said compensation must be ascertained at the price that would be paid by a willing purchaser to a willing vendor of the land with that potentiality, even though that potentiality could be exploited only by the acquiring authority, in the same manner that it would be ascertained where there were possible other purchasers. There was no suggestion in that case of doing a compromise or "splitting the difference". Hegiras assertion for an additional 50% reduction was therefore rejected by the Court.

An accounting based "deprival" methodology was also considered and rejected by the court in this case. The basis of this approach amounted to assessing a value for the completed reclamation as dry land then taking off 50% for the impact of wetland and then deducting another 50% of that figure for access. The decision found fault with a method that applied an arbitrary discount to dry land values.

**B) New South Wales Maritime Valuation Information Sheet (December 2010)**

This document accompanies the brief for the provision of valuation services relating to offer of disposal of reclamations to a private landowner. NSW Maritime requires a current market value for sale purposes to be assessed having regard to the "before and after" method of valuation.

NSW Maritime's sale price is stated as needing to reflect the difference in value between:

I. An existing total or partial waterfront reserve parcel, excluding reclamation and
II. The resultant waterfront parcel including the reclamation

**C) Department of Conservation "Setting the Price for a Reclamation Vesting" Guideline (Version 3)**

This document provides guidance on the process for advising the Minister of Conservation (DOC) on the vesting price for vesting of reclamation under the provisions of s355 & s355AA Resource Management Act.

Salient principles include:

- generally there is no open market for foreshore and sea bed
- there must be recognition given to the valuation principle that "cost does not equal value"
- reclamation is not an improvement for land valuation purposes and is treated as part of the land value
- the valuation of the reclaimed land may include a deduction to reflect the benefits and improvements effected by the developer to convert the land from seabed to reclaimed dry land
- the vesting price recommended to the Minister may include a waiver or reduction to reflect the "public benefits"

Under the heading of Valuation Guideline 1.4 (Traditional Approach) the paper states that the cost of undertaking any reclamation or converting foreshore/seabed to reclaimed land is not the determinant factor. It recommends a two step process to firstly assess the dry land value after reclamation and prior to any discount. Secondly consideration of the quantum of discount to be applied to reflect the benefits and improvements effected by the developer to convert the land from seabed to reclaimed dry land. As a general rule the recommended discount would vary from 33.3% to 50% of the assessed value and notes that deep water reclamations would normally achieve a higher deduction than easy or shallow water reclamations.

# Existing Reclamations Research

The existing reclamation may or may not be legally formed or comply with current resource management and building consent requirements. It will present as similar to adjoining dry land with some form of retained water frontage and may already have improvements built on it. There could be additional risks with existing reclamations around the quality and ability of the current retaining to ensure the future state of the land and each one will need to be assessed on a case by case basis.

The following New Zealand Land Valuation Tribunal decision provides useful discussion on valuation issues arising from potentially increased building and engineering design requirements on existing reclamations and it is recommended reading for valuers:

*Westpark Marina Limited vs Auckland Council LVP113/09-LVP125/09*

A rating valuation case where the objectors argued, amongst other things, that a significant discount to land value was justified because any building on existing reclamation land would require extensive piling and additional engineering costs to overcome inferior sub soil conditions. The LVT determined a modest discount was appropriate based on engineering reports and engineers testimony. They found that buildings erected in reclamation areas mostly had floor loads of 5kPa or less and this level was not unduly restrictive for development purposes.

The respondent's valuer had allowed a discount of 5% for reclamation sub soil conditions which the LVT adopted although made the point that this level was appropriate in the buoyant market conditions of September 2007. In tighter market conditions a greater adjustment may be justified as purchasers are likely to be more risk averse.

# Application of Valuation Methodologies

## Proposed Reclamations (Sea Bed Valuations) Valuation Approach

In accordance with common law practices such as the Court of Appeal decision in Boat Park vs Hutchinson [1999] 2 NZLR 74 the most compelling market evidence on which to base a valuation of this type is sales of other similar sea bed areas in an undeveloped state. The valuer should firstly analyse any recent, comparable land of this nature and directly apply the appropriate results when assessing the value of the subject sea bed.

Given that there will seldom be sufficient evidence of sea bed sales, an alternative valuation approach will often be necessary. It is clear from the Australian practice and case law that the preferred methodology for valuing the existing sea bed strata of proposed reclamations is by application of a before and after approach. The added value of the completed reclamation is determined as the difference between the before (adjoining land only) and after (adjoining land plus reclamation) figures. The indicative value of the original sea bed is the difference between the added value the reclamation gives to the adjoining land and the market based costs of the development. In effect this situation is the reverse of a Public Works Act 1981 acquisition of part of the land; in this case additional reclamation land is provided to the adjoining owner and payment is made to the Crown for the added value of the original sea bed.

This involves the application of a hypothetical development approach whereby the end value of the land including the completed reclamation is reduced by market based allowances for such things as profit and risk, development costs and opportunity cost of capital.

A third, alternative approach is outlined in the Department of Conservation guideline which recommends assessment of a dry land value to which a discount rate of between 33.3% and 50% is applied to recognise the developer's input.

This approach does not reflect the likely market based approach that a developer would reasonably take. Individual reclamations are likely to be quite unique and the methodology should allow flexibility to quantify the actual situation rather than taking a subjective general discount range.

# Market Value Assessments Under IVS 1

Based on the information to hand, and in an effort to ensure consistency in valuation methodology we suggest the following approach to valuing sea bed land.

## Direct Comparison With Sea Bed Land Sales Methodology:

1. Determine the area of the proposed reclamation, and the total, combined area of the reclamation and the adjoining, acquiring land.
2. Analyse market evidence from sea bed sales to determine appropriate value factors
3. Directly apply appropriate value factors to assess the subject sea bed property

## Application of Hypothetical Development Methodology:

1. Determine the area of the proposed reclamation, and the total, combined area of the reclamation and the adjoining, acquiring land. This will be the total area of the property after the reclamation.
2. Determine how long it will take to reclaim the identified land, its likely dry land zoning, water depths and general geological nature of the land under water.
3. Analyse the most recent sales and asking prices of comparable dry land, either with or without water frontage, that best match the property being valued. Be aware of zoning, resource consent and development issues for the subject and comparables.
4. As a minimum the valuer should schedule the indicative dollar per square metre (or hectare in larger properties) rates from the market evidence and document any physical attributes worthy of comment. If an alternative way of analysing and presenting the evidence is more appropriate then this detail should also be provided. This could include likely section sale prices where the reclamation is for subdivision and on sale purposes. In accordance with the PINZ valuation standards there should be a clear link between the comparable evidence and the way the subject property is valued.
5. Use the analysed evidence above to separately determine the value of the:
   - ⇒ combined dry land area after all reclamation work is completed (5a) and
   - ⇒ adjoining dry land area prior to commencement of the reclamation (5b).
6. The adjoining land prior to the reclamation will already have the benefit of a water frontage and this should be considered when assessing the value of the combined new parcel. Any significant enhancement to the adjoining land from additional water front benefits following the reclamation should also be considered.
7. Then subtract pre reclamation value 5b from the value of the combined holding after the reclamation 5a. This gives the gross added value that the sea bed component gives to the entire land holding upon completion of the reclamation.
8. Deduct from the figure in step 7 an allowance for market derived profit and risk. A profit and risk deduction recognises the fact that the land in sea bed state may require significant work to reclaim and the process may be unpredictable. It also reflects that there generally needs to be some gain factor to justify the developer going through the process.
9. Deduction of profit and risk will determine the level of Outlay to be paid by the developer. From this should be deducted the costs to construct the reclamation including both physical works and legal/resource management requirements. The extent of construction cost allowance should be based on what an average contract price would be to do the work as at the date of valuation. This will involve analysis of

reclamation costs from various projects to determine appropriate amounts. Consideration should also be given to the actual costs however if these vary significantly to average costs then preference should be given to the average costs. Resource consent and planning costs will need to consider the proposed end use of the land as more intensive uses may mean higher planning and environmental consent costs. In most cases though the actual cost of resource consent will be known as this is a pre-requisite under MACA for official agreement to start the reclamation process

10. Comprehensive details of engineering, building, legal and planning costs will be required to accurately determine how much should be deducted for the development phase. This will need to consider current construction techniques and modern materials.
11. Once development costs are deducted a further allowance should be made for the opportunity cost of capital. This reflects the fact that the developer could either invest in something else or undertake the project. New Zealand courts have determined that the correct application of a hypothetical development methodology is to allow both an opportunity cost and a profit and risk allowance [Prestige Homes vs Minister of Works]. The amount of opportunity cost allowance will also need to reflect the likely project timeline from commencement of the reclamation to useable dry land.
12. The percentages applied for opportunity costs can be built up and should reflect alternative investment returns. A usual starting point is the risk free government bond rate plus additional percentages for the risks of this venture. The opportunity cost percentage should be applied to the Outlay over at least half the construction period. This recognises that not all the developer's money is spent at the start of the project.
13. This will give an indicative land value of the sea bed for MACA purposes

## Worked Example of Hypothetical Development Approach:

5a land value after completion of reclamation $3,000,000 – 40,000m$^2$
5b land value prior to reclamation $2,000,000 – 25,000m$^2$

Resource consent, building consent and construction costs to develop the reclamation from sea bed $300,000
Profit and Risk 10%
Opportunity Cost 8%
Development period – 1 year

Workings:

5a-5b $3m-$2m = $1m (added value of additional 10,000m$^2$ to the completed reclamation)

$1,000,000 less profit and risk at 10% = $1,000,000 * 10/110 = ($90,909) therefore Outlay $909,091

Less development/construction costs (resource consents, building consents and all related construction costs) ($300,000)

Less Opportunity Cost on Outlay at 8% for 6 months = (Outlay $909,091 *.08 * .5) = ($36,364)

Therefore $909,091 - $300,000 - $36,364 = $572,720

Say **$570,000** for MACA purposes, exclusive of GST, if any.

## Direct Comparison With Conservation Land Or Poor Quality Inundation Prone Sales Methodology:

1. An alternative check approach for sea bed land value prior to any reclamation would be to analyse on a dollar per hectare/square metre basis any recent sales of conservation land and/or poor quality land prone to regular inundation. Apply an appropriate rate per hectare/square metre to the subject property on a direct comparison basis.

   This approach may be useful where there are no other directly comparable sea bed sales or where the hypothetical approach is showing minimal or negative values. It recognises the fact that the Crown has an interest in land which holds a positive value.

## Existing Reclamations Valuation Approach

This land is substantially the same as other dry land provided the reclamation has been done to an approved standard which ensures a high degree of permanence and engineering integrity.

For all existing reclamations, the initial valuation process would be identical up to and including step 7. This indicates the added value the reclaimed land gives to the entire holding, in its reclaimed, dry state, by ignoring the additional steps required to deduct costs etc. to carry out the reclamation.

For reclamations that have been completed legally, the additional valuation steps above could be applied to determine market value of the sea bed land prior to the work being completed. This should be done utilising average contract costs and project timelines for the type of reclamation as at the effective date of the valuation.

When valuing the land in the after state with the reclamation area, adjustments may be necessary for any stability risks based on formal engineering assessments. Consideration should also be given to the Westpark Marina case referenced earlier when determining the extent of any adjustment for sub soil conditions.

Consideration should be given to any benefit the land has from its water front position.

Zonings need to be clearly determined as this will influence the extent of development of the site and allow meaningful comparisons to be made with sales of other similar land.

# Miscellaneous

## The Discounted Cash Flow Valuation Method

If applicable, valuers could use this approach as a check method to determine the before and after value of the land. The application of this valuation methodology is generally reserved for situations where the purpose of reclaiming the land is to generate income through subsequent rental or sale. Reclamations permitted through the MACA legislation are more likely to involve adjoining owners expanding the utility of their existing sites and not for direct income or on sale purposes. On this basis the use of a discounted cash flow approach may be limited, except in circumstances where there is a commercial income earning operation or where the reclaimed land will form part of a development site for on sale purposes.

# Setting a Rent on Reclamation Land

This would typically be done in accordance with the traditional 'ground rental' approach. The first step would be to assess the dry land value of the reclaimed land and the second step is to apply a market derived percentage rate to this, to give a rental figure. If the land value was $100,000 and the market indicated that the prevailing rate of return of ground rental was 6% the rental would be circa $6,000.