

South Murwillumbah & Bray Park  
Voluntary House Purchase Scheme  
**Scoping Study & Implementation Plan**

Floodplain Risk Management

V1.5

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<b>VERSION</b>	<b>AMENDMENT DETAILS</b>	<b>CLAUSES AMENDED</b>	<b>DATE ISSUED</b>
1.1	Draft for Internal Review	Not Applicable	14 September 2018
1.2	Revised Draft for Internal Review	All	23 November 2018
1.3	Incorporate OEH Comment	Background, VHP Scheme Implementation	6 March 2019
1.4	Prepare for Exhibition	All	27 March 2019
1.5	Incorporate Public Exhibition Comments. For Adoption	Voluntary House Purchase (VHP), Proposed South Murwillumbah and Bray Park VHP Scheme, Voluntary House Purchase Scheme Implementation, Amendments to the TVFRMP Recommended Scheme	Adopted: 15 August 2019

## Background

Starting in the 1950's, various flood studies have defined flood behaviour in the Tweed Valley. The Tweed Valley Flood Study 2009 is the currently adopted assessment of flooding behaviour in the Tweed Valley catchment. The study identified various areas, particularly in the South Murwillumbah and Bray Park, where existing dwellings are exposed to high hazard flooding.

As part of the 1989 Murwillumbah Floodplain Management Plan, a number of properties in South Murwillumbah were identified as being at high flood risk. These properties were included in a Voluntary House Purchase (VHP) scheme for the area along River Street between Greville and Colin Streets. A total of 11 properties were included in the original scheme. Of these, 4 dwellings remain and these will be rolled into the proposed scheme.

The Tweed Valley Floodplain Risk Management Study and Plan 2014 investigated various mitigation measures to reduce the level of flood risk that residents of the Tweed Valley are exposed to. For many properties, it was found that none of the typical flood risk mitigation measures (i.e. levees) were suitable and the only effective strategy to reduce risk is to remove those high hazard properties, and their occupants, from the floodplain. The Tweed Valley Floodplain Risk Management Plan (TVFRMP) recommended that Council implement an expanded VHP scheme for the identified high hazard properties. This plan was endorsed by Council in September 2014

The March 2017 flood event further highlighted the need for a VHP scheme in the area with multiple fatalities, many 'near misses' and a number of dwellings being damaged in the event.

Immediately after the March 2017 flood event Council applied to NSW Office and Environment and Heritage (OEH) to establish the South Murwillumbah and Bray Park VHP scheme. Council was subsequently offered access to the State VHP funding pool. Council resolved to accept this, and roll out the VHP scheme, at the February 2018 Council Meeting.

VHP Schemes are costly and Council is not in a position to adequately fund the proposed scheme without external funding assistance. Currently, there is only one established program and source of external funding available for VHP in NSW, the NSW Office of Environment and Heritage (OEH) Floodplain Management Program. NSW OEH will be a critical partner in the proposed VHP Scheme.

The Tweed Valley Flood Study 2009 represents the best available regional flooding data for the catchment. However, the South Murwillumbah Floodplain Risk Management Study (Draft at the time of writing), which includes the South Murwillumbah and Bray Park areas, incorporates far superior, higher resolution modelling and mapping outputs and is therefore the best available flooding data for defining the VHP scheme. Therefore, modelling and mapping from the South Murwillumbah Floodplain Risk Management Study (Draft) has been utilised to formulate this VHP scheme scoping study and implementation plan.

As the VHP scheme is likely to be rolled out over many years, improved flood modelling will become available during the life of the scheme. When this happens, the scheme will be reviewed in light of the new information and amended as necessary.

## Voluntary House Purchase (VHP)

VHP is a flood risk management tool, used when there are no other feasible options for protecting an existing community from severe flooding, such as building levees, diverting flood flows, or improving evacuation access.

The main aim of VHP is to permanently remove at risk people from high flood hazard areas (areas with high flood depths and velocities) by purchasing their houses. The dwelling is then removed (for relocation, if suitable) or demolished and the property is back zoned to a more flood compatible land use, such as recreational park.

The benefits of VHP include:

- physical retreat from high flood risk areas, avoiding future potential loss of life and damage to property
- reducing the direct costs (damage to buildings and infrastructure) and indirect costs (trauma and ill health effects) of flooding
- reduction in the public health and welfare costs associated with flooding
- removal of homes from the threat of future floods
- reduction in demand for evacuation resources and risks to would be rescuers

VHP Schemes are long-term, multi-generational projects. For example, Lismore has had a VHP Scheme since 1954 and, though the rate of purchase has varied, approximately 100 properties have been purchased to date. Due to VHP's high cost and voluntary nature; widespread, short-term progress is not likely and a long-term commitment to the Schemes is required.

Removal of buildings from floodways and flow paths may also reduce flood impacts in other areas and also potentially provides more land to carry out flood mitigation works such as channel improvements.

The NSW State Government, through the Office of Environment and Heritage (OEH), provides grants to Councils under the Floodplain Management Program for eligible properties in defined VHP Schemes. Under these schemes OEH pays two-thirds (2/3) of the program cost and Council pays one-third (1/3).

## Proposed South Murwillumbah and Bray Park VHP Scheme

The proposed scheme, which is outlined below and in the appendices, primarily represents the properties subject to the highest hazard in South Murwillumbah and Bray Park. The proposed scheme also takes into consideration of evacuation and isolation constraints and the susceptibility of each dwelling to flooding.

The proposed scheme adopts a staged approach. It identifies 39 properties in the highest priority areas that Council will actively pursue for purchase under the current funding arrangements (Appendix 1). However, a secondary group of properties is also identified that are also suitable for purchase but, due to the current funding constraints, it is not possible to pursue at this time (Appendix 4). Council would only pursue the purchase of these secondary properties if the current funding model was expanded and additional funding became available.

Whilst the 39 properties identified are of the highest priority, the high cost and long term nature of the scheme must be acknowledged. At the time of writing, Council has allocated budget to match State funding and purchase 2 x properties per scheme per year.

It should be noted that the 39 selected properties are further prioritised based on the criteria outlined in the below sections. However, as this information contains information specific to privately owned properties, it is kept confidential and for internal purposes only.

The proposed scheme includes 39 dwellings. Median house price in South Murwillumbah is currently \$390,000. Therefore, the total cost of the scheme, in 2017 dollars, is roughly \$15.2 million. Obviously, this is not achievable in the short-term and this scheme is likely to be a long-term, multi-generational project.

The Tweed Valley Floodplain Risk Management Study calculated a cost-benefit ratio for the VHP options 2 and 3 of 0.6 and 1.1 respectively. These BCRs were based solely upon reductions in Average Annual Damages, or avoided property damages/losses. This is a poor indication of the value of a VHP scheme, which is primarily aimed at reducing risk to life. Therefore, no BCR calculation for the proposed scheme has been calculated.

## Voluntary House Purchase Scheme Implementation

Tweed Shire Council (TSC) will to be proactive in implementing the VHP scheme.

The following process will be generally followed:

- At the beginning of each financial year, Council will seek advice on the availability of external funding to complement Council's budget allocation.
- Based on funding available, Council will seek expressions of interest from identified landowners in priority order
- From the interest registered, the highest priority interested properties will be assessed by an independent valuer to determine "market value" of the property
- The landowner will be advised of the assessed value and asked to indicate if they would accept the valued price
- If the landowner indicates the valued price would be accepted, external funding to complete the purchase will be sought
- If funding is secured a formal offer will be made to the landowner.
- If the offer is accepted, the purchase will be reported to the next Council meeting for endorsement
- Once approved the purchase of the property will be executed.
- Once Council takes possession of the property the dwelling will be removed (for relocation, if suitable) or demolished.
- The property is then 'back-zoned' to an appropriate, flood compatible, land use (i.e. park)

At all times the scheme is voluntary and will not proceed without the landowner's consent.

In parallel with the roll out of the scheme, development controls will be implemented that cap development on the identified high hazard and VHP areas. In time, these will be formalised by amendments to the Tweed planning documents.

The scheme is highly dependent on the availability of external funding. The most likely source of funding is the NSW VHP funding pool.

Funding for VHP from the NSW VHP pool across the State has, historically, been limited. Although Council has been granted "access to the Voluntary Purchase Pool" this does not

constitute confirmed funding. Council must submit further applications to gain actual confirmed funding each financial year. Currently, the State does not provide any commitment to, or advice as to the likely amount of, funding in future financial years, which leaves the VHP Scheme subject to the yearly fluctuations in the State’s budget. As the VHP Schemes are dependent on external funding, this is a key limitation to the capability of the VHP Schemes.

## Property Selection and Prioritisation Methodology

The identified properties were prioritised by scoring each against weighted criteria.

As VHP is primarily an exercise in mitigating risk to life; hazard, evacuation difficulty and likelihood of isolation were the main criteria used to prioritise the identified VHP properties. Depth of over-floor flooding in a 1% AEP flood was used as the third, supplementary criteria to quantify exposure to flooding.

The criteria and weightings are summarised as follows:

Criteria	Weighting
Hazard (Depth, Velocity, DxV)	50%
Evacuation Difficulty and Isolation	33%
Depth of Over-Floor Flooding (1%AEP)	17%
<b>Total</b>	<b>100%</b>

Table 1: Prioritisation criteria weightings

### Hazard Classification

Hazard classification is a representation of the danger posed by flooding at a specific location. Hazard is based on thresholds of depth, velocity and depth/velocity product. The Flood Hazard Vulnerability Curves adopted are taken from Australian Disaster Resilience Handbook Collection Guideline 7-3 - Flood Hazard which is a supporting document for the implementation of Australian Disaster Resilience Handbook 7 Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia (AIDR 2017).

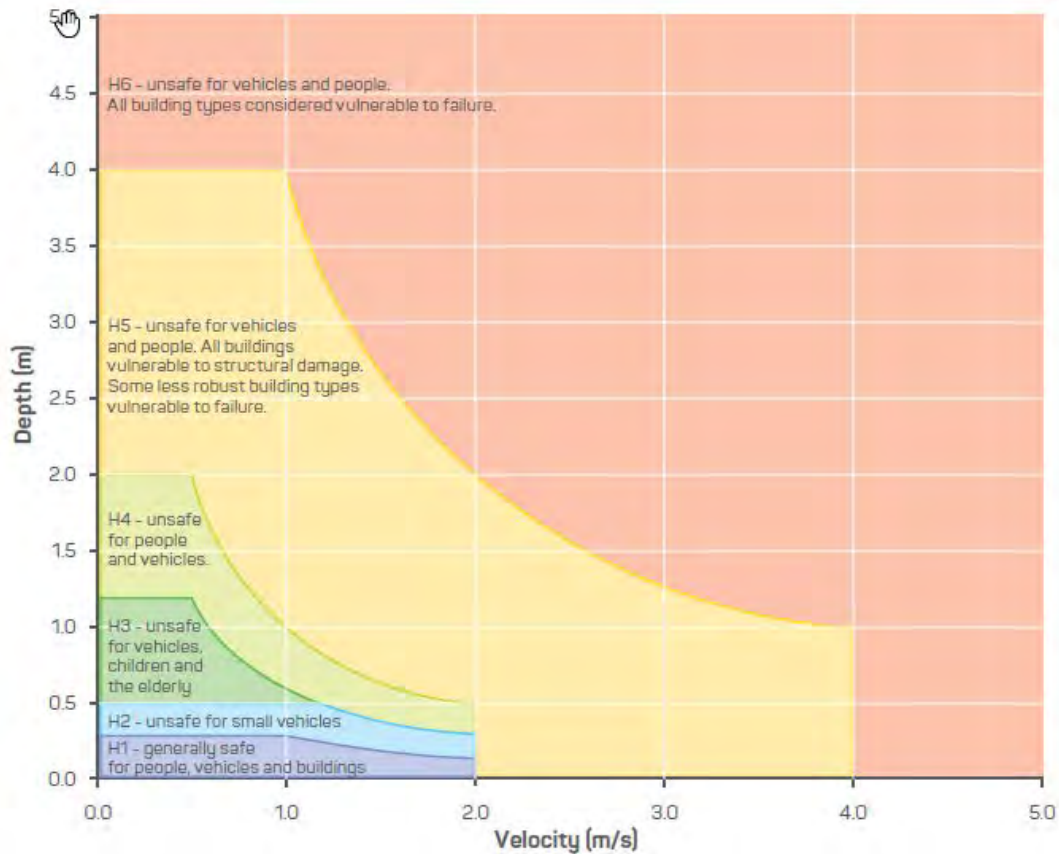


Figure 1: Flood Hazard Vulnerability Curves (Australian Disaster Resilience Handbook Collection Guideline 7-3 - Flood Hazard).

Property specific hazard classifications were extracted from the South Murwillumbah Floodplain Risk Management Study (Draft).

Hazard classification was weighted at 6 out of a total of 12 possible points of each property’s total score. Hazard was split into its 3 x components (depth, velocity and depth-velocity product). Each of the 3 components was allocated a maximum of 2 points based on selected thresholds which are described in Table 2 below.

	Depth	Velocity	Depth x Velocity
<b>0 Points</b>	<2m	<0.3m/s	<0.4m <sup>2</sup> /s
<b>1 Point</b>	>2m, <2.6m	>0.3m/s, <0.6m/s	>0.4m <sup>2</sup> /s, <0.7m <sup>2</sup> /s
<b>2 Points</b>	>2.6m	>0.6m/s	>0.7m <sup>2</sup> /s

Table 2: Hazard Scoring Thresholds

**Evacuation Difficulty and Isolation**

Risk to life is greatly influenced by the presence (or lack of) of a passable escape route for dwelling occupants before or during a flood. During a flood, when sheltering in place, it is also considered safer to be among neighbours as opposed to alone and isolated on the floodplain as assistance can be provided by neighbours, resources are pooled and secondary refuges are available in the event of a structural collapse. Evacuation difficulty and isolation attempts to quantify the likelihood of a dwelling’s occupants being trapped in their homes during a flood, a major determinant of risk to life.

Evacuation difficulty and isolation is also related to the burden placed on emergency services during a flood event.



The time available for evacuation was not used as a criterion as all the proposed VHP properties are in close proximity to each other and would receive comparable warning from the existing Bureau of Meteorology flood warning systems and SES.

Evacuation Difficulty was quantified using 2 x property characteristics:

1. Number of immediate neighbours?
2. Is a flood free land available nearby?

#### *Number of Immediate Neighbours*

Number of immediate neighbours was utilised to quantify the likelihood of local isolation of each dwelling. In over-floor flooding scenarios during major flood events, residents of flood affected dwellings will often self-evacuate to higher neighbours houses. However, the difficulty associated with this relocation is proportional to the distance between neighbouring houses. Therefore, a limit of 20 metres between houses was adopted as the limit of an “immediate” neighbour.



Figure 2: Example of how “immediate” neighbour was defined.

Number of immediate neighbours was weighted at 2 out of a total of 12 possible points (50% of the Evacuation Difficulty and Isolation criteria) of each property’s score.

- Zero Immediate Neighbours = 2 points
- 1 Immediate Neighbour = 1 point
- 2 or more immediate Neighbours = 0 points

#### *Is Flood Free Land Available Nearby*

The other component used to quantify evacuation difficulty was if flood free land is available nearby. This is a property scale adaptation of Emergency Response Classifications, which are commonly used in Flood Management practice.

The *Australian Disaster Resilience Handbook Collection Guideline 7-2 - Flood Emergency Response Classification of the Floodplain* provides guidance on the approach. This is a supporting document for the implementation of Australian Disaster Resilience Handbook 7 Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia (AIDR 2017).

However, the classifications used in the above document are at a precinct scale and had to be modified for use in this, property scale, Voluntary House Purchase Scheme scoping study and implementation plan. As the majority of dwellings in South Murwillumbah and Bray Park are situated on the floodplain, with topography below 1% AEP, almost all would all have the same classification under the above document's guidelines. Therefore, a finer resolution criterion had to be adapted to reflect evacuation potential and associated risk to life in the South Murwillumbah and Bray Park residential areas.

Proximity to flood free land was adopted as the most appropriate measure. "Flood free land" was defined as land above PMF or land above 1% AEP with a rising evacuation route to land above PMF. Three thresholds were adopted for the distance between the dwelling and flood free land and points applied based on these.

"Is a flood free land available nearby", for each individual property, was defined as demonstrated in figure 3 below.

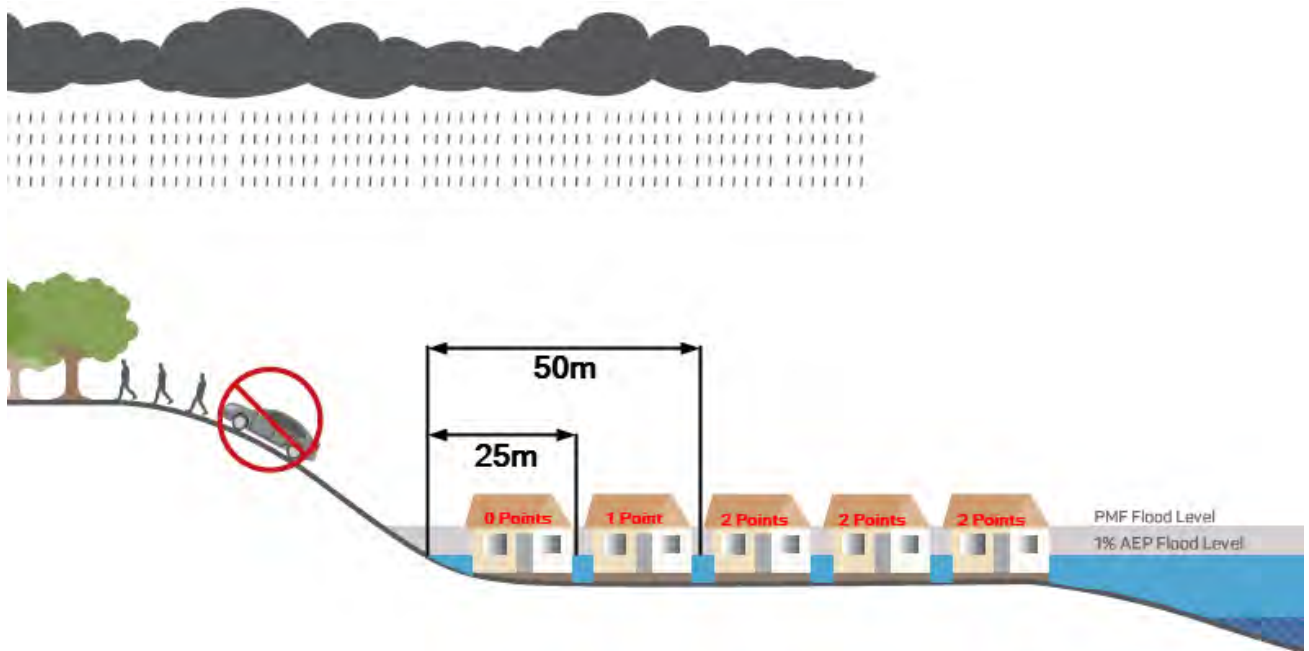


Figure 3: Flood Free Land Proximity Thresholds (adapted from *Australian Disaster Resilience Handbook Collection Guideline 7-2 - Flood Emergency Response Classification of the Floodplain*).

As demonstrated above, topography and flood modelling in the vicinity each dwelling was assessed to determine the proximity to flood free land.

Proximity of flood free land was weighted at 2 out of a total of 12 possible points (50% of Evacuation Difficulty and Isolation criteria) of each property's score.

- Greater than 50m = 2 points
- Greater than 25m but less than 50m = 1 point
- Less than 25m = 0 points

Almost all of the properties included in the final scheme did not have access to flood free land (i.e. scored 2 points in this category). The lack of lower scoring properties in this category is because those properties closer to flood free land generally scored lower overall and were filtered out of the final high priority list.

Overall, evacuation difficulty and isolation was weighted at 4 out of a total of 12 possible points of each property's score.

### **Depth of Over-Floor Flooding**

Depth of Over-Floor Flooding in a 1% AEP event was included as minor criteria (2 out of a total of 12 possible points of each properties score. Depth of over floor flooding is better suited as a measure of damage exposure (direct and indirect) however; it does help to establish the cost-benefit ratio of the scheme and is also a representation of the dwellings susceptibility to flooding and subsequent rescue/forced escape of any sheltering occupants.

Dwelling floor levels and 1% AEP levels were extracted from the Tweed Valley Floodplain Risk Management Study 2014 and South Murwillumbah Floodplain Risk Management Study respectively.

Dwellings with floors inundated by more than 1 metre in the 1%AEP flood received 2 points, less than 1 metre received 1 point and those not flooded above floor in a 1% AEP flood received zero points.

1% AEP depth over floor > 1m = 2 points

1% AEP depth over floor < 1m = 1 point

Not flooded over floor in 1% AEP = 0 points

### **Findings**

These scores were calculated for every residential dwelling in South Murwillumbah and Bray Park (a total of 235 properties) and then mapped. Clusters of high scoring properties were then identified and selected as contiguous VHP areas for inclusion in the scheme.

All properties have been ground-truthed and the weighted results reflect the subjective site assessment.

## Amendments to the TVFRMP Recommended Scheme

The TVFRMP recommended a scheme that included dwellings located in areas that experience flood waters above certain depth, velocity and depth-velocity product in a 1% AEP event. These are roughly equivalent to H5 and H6 classifications under the new flood hazard vulnerability curves provided by the Australian Disaster Resilience Handbook Collection Guideline 7-3 - Flood Hazard, only with slightly different depth thresholds.

The TVFRMP recommended the immediate implementation of VHP option 3 (8 houses). In addition, it recommended a review to consider the feasibility of a VHP scheme for an additional 21 properties (referred to as VHP Option 2). This scoping study and implementation plan considers the feasibility of option 2 and recommends the scheme be extended to include these properties and more.

Option 2 (velocity > 2m/s or $VxD > 1\text{m}^2/\text{s}$ or depth above ground > 2.5m)	29
Option 3 (velocity > 2m/s or $VxD > 1\text{m}^2/\text{s}$ or depth above ground > 3.0m)	8

Table 3: TVFRMP adopted VHP hazard criteria.

The Tweed Valley Flood Study 2009 and subsequent Floodplain Risk Management Study and Plan 2014 utilised a 40 metre grid, regional flood model. This resolution of flood model is not fit for differentiating between individual properties. The South Murwillumbah Floodplain Risk Management Study (SMFRMS) was in draft format during this scoping study which utilised a 5m grid, local flood model. This is a far higher resolution (64 times greater) model better defines flood characteristics at each property and therefore was used for this scoping study.

This scoping study also considered evacuation difficulty and likelihood of isolation, which the TVFRMP recommended scheme did not.

The VHP scheme proposed in this plan includes a number of properties that were not included in the Tweed Valley Floodplain Risk Management Study and Plan. These properties are proposed to be added because, upon further investigation facilitated by finer resolution flood modelling and experience during the March 2017 flood event, they exhibited characteristics similar to those included in the TVFRMP and are appropriate for the VHP scheme.

The properties recommended for the designated VHP scheme are outlined in Appendix 1.

## Parallel Development Controls

The roll out of the VHP scheme requires the parallel implementation of development controls to the scheme area. This is a requirement of NSW Office of Environment and Heritage, who administer the grant, and also responsible practice. It would be counterproductive to allow further development in localities with a VHP scheme. For example, if the scheme was to acquire a property but allow the construction of a dwelling on the adjacent lot, it defeats the purpose of the scheme which is to remove people from the high risk areas.

### **Update of Council's Flooding Development Controls**

Council's current flooding related development controls are contained in Development Control Plan Section A3 – Development of Flood Liable Land (DCP-A3). These controls are well established and clearly limit new subdivision and impose standards on new buildings exposed to high flood risk. However the current controls are limited in preventing landholders from acting on their legal entitlement to develop in accordance with current land zonings, even where that is inconsistent with the intent of the VHP schemes, which is to permanently remove people from high flood hazard areas.

A High Flood Hazard Area Policy will be implemented to assist Council officers and landholders in understanding the flood risk and preventing applications for new residential development that is incompatible with the flood hazard of the land. The High Flood Hazard Area Policy is to remain in place while formal amendment to DCP-A3 is completed in accordance with the recommendations of the FRMPs.

### **Lot Consolidation**

The wider South Murwillumbah and Bray Park areas contain many aggregated lots (single dwellings over multiple land parcels). The Tweed LEP permits the addition of a single dwelling to any existing, residential zoned, land parcel. Therefore, there is a future risk of further residential development of aggregated lots in the identified high hazard flood areas.

To mitigate this future risk, in parallel with the VHP scheme, compensation measures encouraging these lots to be consolidated by the landholder will be rolled out as required and budget allows. The aim of these measures will be to remove the potential for increased residential development without the removal of the residential zoning and preserving the current dwelling and private ownership of land. This requires some incentives to be offered by Council, as the increased value of the existing dwelling with increased land area is unlikely to match the lost value of additional dwelling entitlements. At the time of writing this not eligible for funding under OEH's VHP Program (Appendix 3) or any other known State Government program. As funding is uncertain, this component of the program is likely to be reactive (to development enquiries and applications) depending on available funding.

### **Planning Certificates**

Information will be added to Council's Planning Certificates to notify prospective buyers or interested parties of the flood risk associated with the property, the VHP scheme, the interim high hazard policy and its implications for development. Interim notes have already been applied to planning certificates and these will be refined once this VHP Scheme is endorsed and DCP-A3 has been updated.

## Appendix 1 – South Murwillumbah and Bray Park Designated Voluntary House Purchase Scheme - Map



**Legend**

- Designated VHP Scheme Area
- Public Land

**Designated Voluntary Purchase Scheme Areas  
South Murwillumbah**

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## Appendix 2 – South Murwillumbah and Bray Park - Flood Characteristics Mapping (1% AEP)



# South Murwillumbah and Bray Park

## Flood Hazard (1% AEP)



### Legend

- H1
- H2
- H3
- H4
- H5
- H6

Australian Disaster Resilience Handbook 7  
Managing the Floodplain: A Guide to Best  
Practice in Flood Risk Management in Australia

Source: South Murwillumbah Floodplain  
Risk Management Study (Draft)

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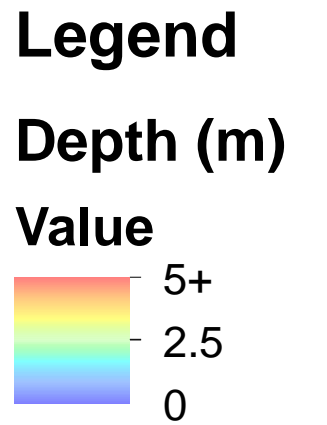
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# South Murwillumbah and Bray Park

## Flood Depth (1% AEP)



Source: South Murwillumbah Floodplain Risk Management Study (Draft)

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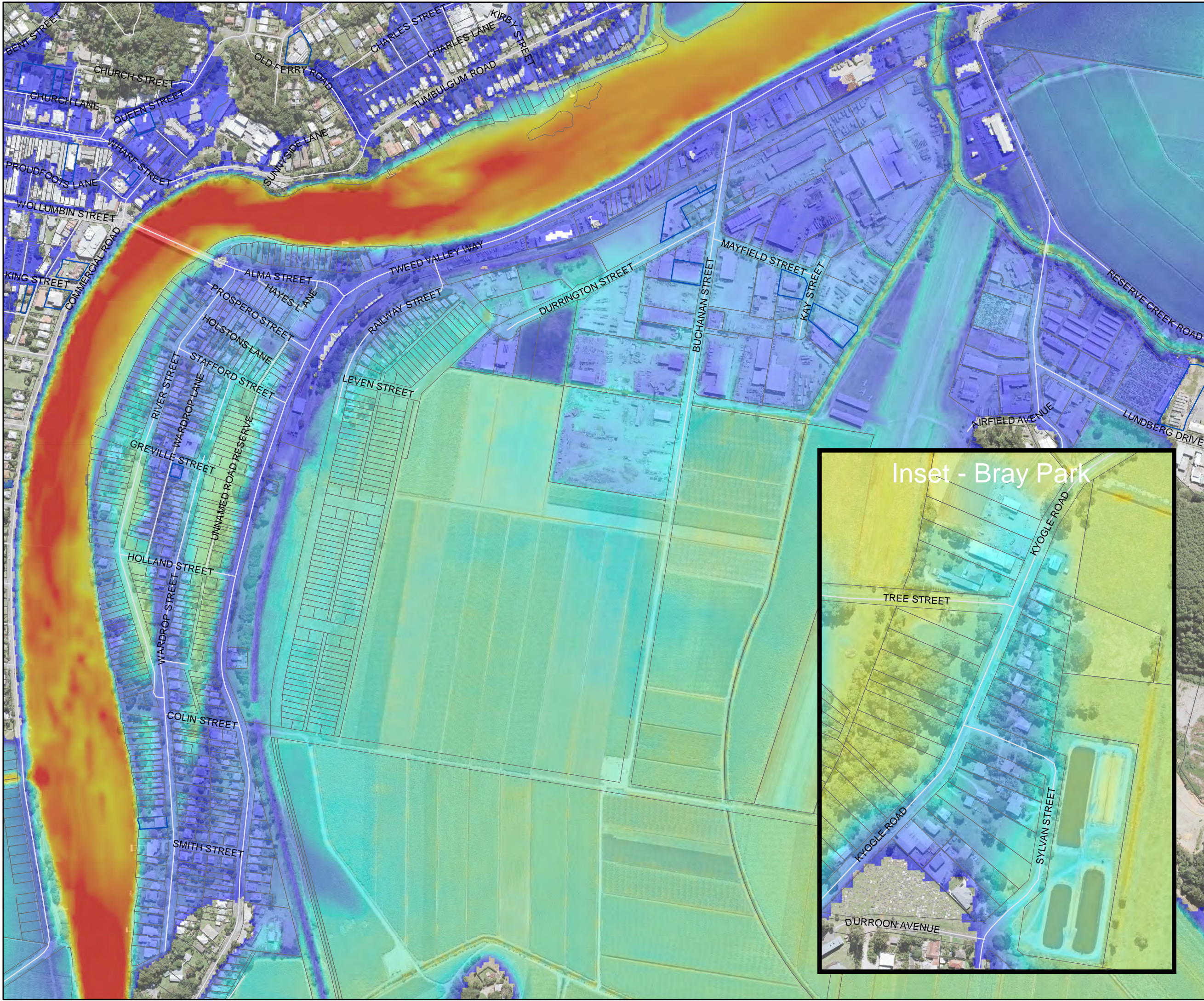
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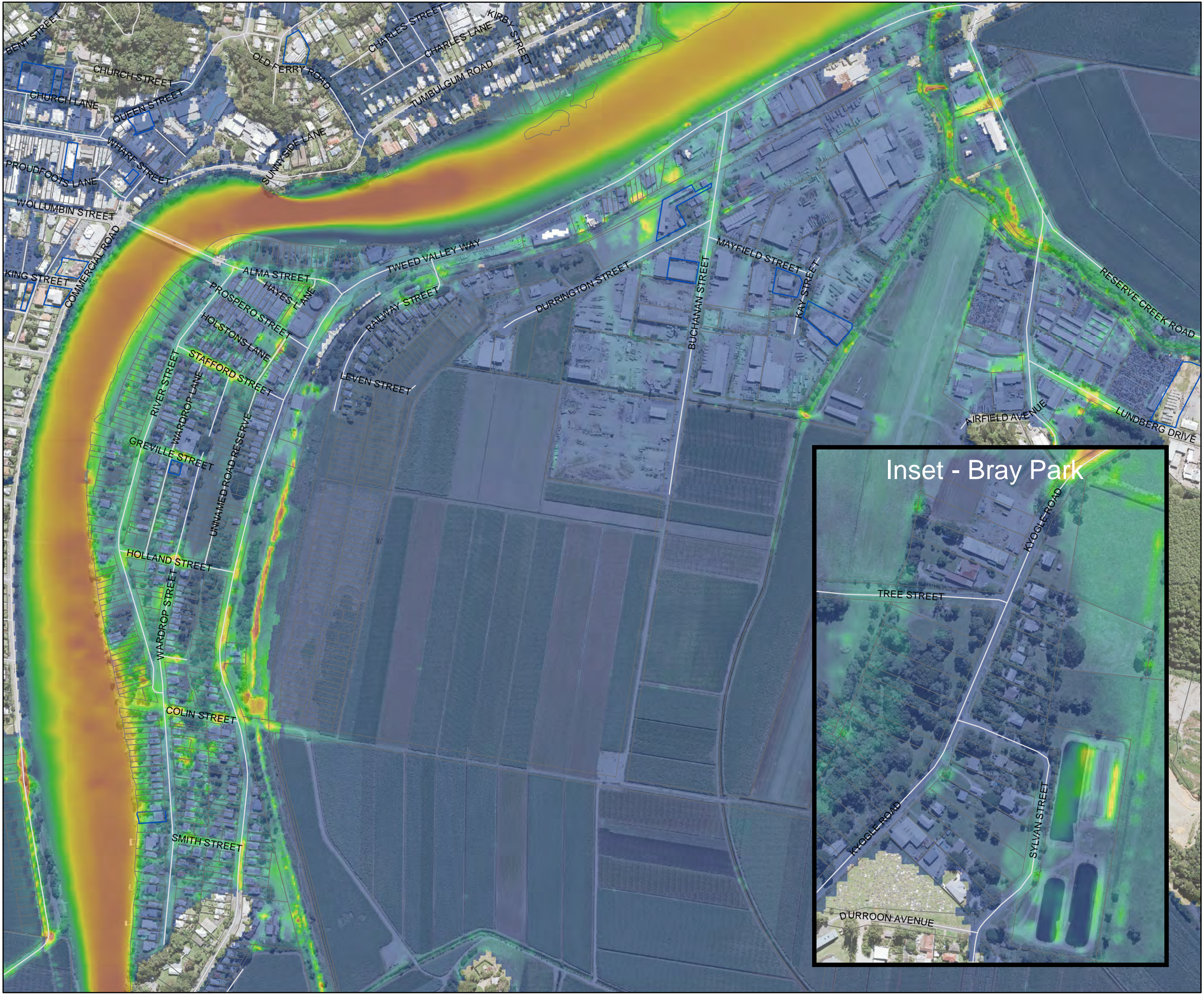
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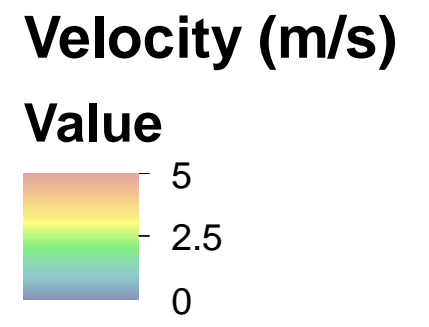


# South Murwillumbah and Bray Park

## Flood Velocity (1% AEP)



### Legend



Source: South Murwillumbah Floodplain Risk Management Study (Draft)

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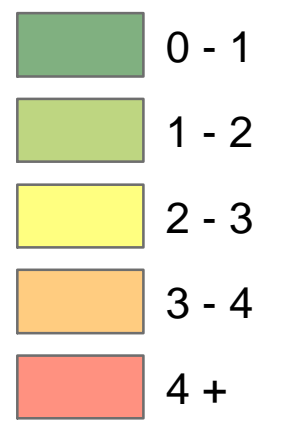
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# South Murwillumbah and Bray Park

## Flood Depth-Velocity Product (Flow) (1% AEP)

### Legend

#### Depth X Velocity VALUE (m2/s)



Source: South Murwillumbah Floodplain Risk Management Study (Draft)

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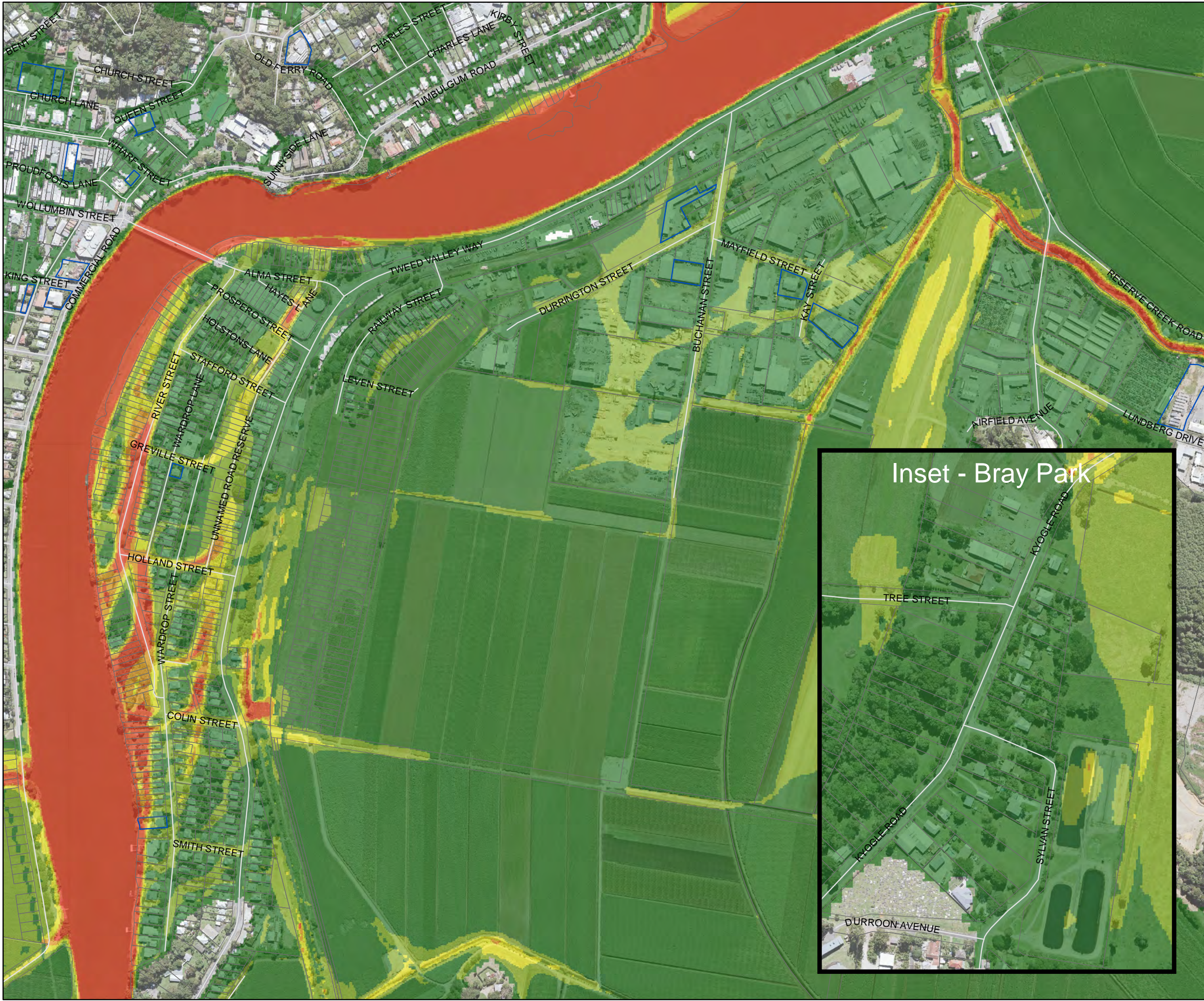
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Author:

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## Appendix 3 – NSW OEH Guidelines for Voluntary Purchase Schemes

# Floodplain Management Program Guidelines for voluntary purchase schemes

## 1. Introduction

This guideline has been prepared for councils seeking funding from the NSW Government's Floodplain Management Program to implement voluntary purchase (VP) schemes.

This guideline details the objectives, eligibility criteria, funding and implementation procedure for a VP scheme that has been included in a council's adopted Floodplain Risk Management Plan (FRMP) as part of a set of flood risk management measures. It does not provide guidance on assessing the viability of VP as a management option as part of an FRMP.

Councils should discuss all proposed voluntary purchase schemes and their potential for funding with their Office of Environment and Heritage (OEH) representative.

## 2. Objectives

VP is a recognised and effective floodplain risk management measure for existing properties in areas where:

- there are highly hazardous flood conditions from riverine or overland flooding and the principal objective is to remove people living in these properties and reduce the risk to life of residents and potential rescuers
- a property is located within a floodway<sup>1</sup> and the removal of a building may be part of a floodway clearance program that aims to reduce significant impacts on flood behaviour elsewhere in the floodplain by enabling the floodway to more effectively perform its flow conveyance function
- purchase of a property enables other flood mitigation works (such as channel improvements or levee construction) to be implemented because the property will impede construction or may be adversely affected by the works with impacts not able to be offset.

VP can be an effective strategy where it is impractical or uneconomic to mitigate the high flood hazard to an existing property and it is more appropriate to cease occupation to meet the above objectives. It is likely to be a measure that complements an overall floodplain risk management strategy for an area rather than an option that reduces flood risk on its own.

## 3. Consideration of properties for VP

Assessing the viability of a VP scheme or an individual property for VP is part of a collective assessment of floodplain risk management options for the community when an FRMP is developed. The FRMP will be adopted by the council and should have considered:

- flood hazard classification and associated risk to life
- hydraulic classification in relation to location in a floodway
- the benefits of floodway clearance to the flood-affected areas

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<sup>1</sup> Area of the floodplain where a significant discharge of water occurs during floods

- economic, social and environmental costs and benefits
- viability of the scope and scale of the scheme and how the scheme will be prioritised generally on the basis of degree of flood hazard exposure
- identification of each affected property and the buildings on them
- the support of the affected community for VP as determined through consultation with affected owners
- an implementation plan for the scheme.

#### 4. Defining the scope of a new VP scheme

Although properties may have been identified for VP within an FRMP, a more detailed assessment may be required to scope, cost and fully prioritise the VP scheme prior to making an application for funding of the scheme. This assessment will involve consideration of the items identified in Section 3 above.

This may involve development in consultation with OEH flood staff of a short report which is eligible for funding through the normal application process under the Floodplain Management Program. Completion of a new works project ranking form is recommended as part of the report as this will provide an indication of the potential priority of the VP scheme. The new works project ranking form can be downloaded from [www.environment.nsw.gov.au/coasts/Floodgrants.htm](http://www.environment.nsw.gov.au/coasts/Floodgrants.htm).

Inclusion of a property in a council's VP scheme places no obligation on the owner to sell the property or on the council or NSW Government to fund the purchase of the property. Owner participation in the scheme is voluntary and there are limitations on the availability of funding.

#### 5. Eligibility criteria for funding a VP scheme

The following criteria need to be met for a property within a VP scheme to be eligible for funding:

1. Only councils are eligible to apply for funding under the program. It is not open directly to individuals. Requests from home owners for properties to be purchased for hardship reasons are not eligible for funding.
2. VP will be considered only where no other feasible flood risk management options are available to address the risk to life at the property.
3. Subsidised funding is generally only available for residential properties and not commercial and industrial properties.
4. Funding is only available for properties where the buildings were approved and constructed prior to 1986 when the original Floodplain Development Manual was gazetted by the State Government. Properties built after this date should have been constructed in accordance with the principles in the manual.
5. The individual properties within a scheme should be identified<sup>2</sup> within an FRMP developed in accordance with the [Floodplain Development Manual](#) (2005) and adopted by the council.
6. Funding under the program is only available for properties identified in a VP scheme that has been fully defined, scoped and prioritised. The report to scope and prioritise the VP scheme is eligible for funding.

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<sup>2</sup> Individual properties do not need to be identified within the FRMP itself; they can be included within a commercial and confidential appendix.

7. Under limited circumstances, VP can be considered for funding prior to completion of an FRMP. However appropriate investigations and assessments need to be completed and clear and compelling evidence provided as the basis for expediting consideration ahead of a completed FRMP. This would generally include scoping the VP scheme.
8. Properties being considered for VP should be located:
  - within high hazard areas where there is a significant risk to life for occupants and those who may have to evacuate or rescue them – However, a house in a location that is classed as high hazard on the basis of depth or provisional hazard alone would not be automatically eligible for VP. Hazard categorisation should be based on the true hazard assessment and consider a range of other factors that influence flood hazard as detailed in the [Floodplain Development Manual](#) (2005).
  - within a floodway where the removal of the house may be part of a floodway clearance program aimed to reduce the significant impacts caused by the existing development on flood behaviour elsewhere in the floodplain and enable the floodway to more effectively perform its flow conveyance function
  - within the footprint of a proposed flood mitigation measure or where a flood mitigation measure may result in a significant increase in flood risk to a house that cannot be protected – Eligibility will be considered as part of the detailed investigation and design for the works project. Funding the purchase of the property would be considered as part of the total works package which could include pre-construction activities.
9. Unless it is being purchased to facilitate a mitigation work, vacant land is not generally eligible for funding as it does not achieve the main aim of VP. Development controls should be used to limit the potential development of vacant land so that this is consistent with the flood function and flood hazard at the location.
10. Two- or multi-storey properties may be eligible for funding despite the upper floors not being directly affected by over-floor flooding. Residents retreating to the upper floors and their potential rescuers may still face significant risk to life and the building may not be designed to be structurally sound for the potential range of flood conditions. An additional hazard assessment needs to be undertaken to confirm eligibility of multi-storey properties.

## 6. Eligible/ineligible costs

Costs **eligible for funding** are those that support the purchase of the property including:

- actual purchase price, where this is within the range of a valuation undertaken in accordance with Valuer General requirements to provide a range that is considered fair and equitable in relation to market value
- legal costs of the council
- vendor's legal costs for the sale of the property
- valuation fees
- demolition costs that are incurred within six months of purchase – Eligibility for subsidy of demolition costs outside this period is subject to the agreement of OEH. If unforeseen elements, such as asbestos removal, are discovered during the demolition, the inclusion of these fees will need to be discussed with OEH.

Councils are generally offered funding based on the projected total cost over the three-year period of the scheme at a funding ratio of \$2 State to \$1 Council or local contribution. Where the council believes that their specific financial circumstances warrant a higher funding ratio, this should be discussed with OEH staff.



Costs which are **not eligible for funding** are:

- solatium<sup>3</sup> (set compensation amount payable to cover the non-financial inconvenience of relocation)
- removalist costs
- fees associated with any purchase of a new property by the VP vendor
- administrative costs
- retrospective works (with the exception of valuation fees)
- vendor legal costs for purchase of a new property
- costs of maintaining the land after purchase
- costs associated with rezoning the land
- house and land costs outside the range of the valuation outlined above, although the council may purchase the property for more than the maximum valuation.

## 7. Implementation procedure

### Applying for funding

If a scoping study is required to be completed prior to application for a VP scheme, as detailed in Section 4 above, the following steps apply:

- An application is made to undertake a scoping study for the proposed scheme during a funding round. Standard details relating to the provision of grants and a sample funding agreement are available at [www.environment.nsw.gov.au/coasts/Floodgrants.htm](http://www.environment.nsw.gov.au/coasts/Floodgrants.htm). The council must also submit the accompanying *New Works Project Ranking Form* also available at this web address. Note this may not be required if the scheme was sufficiently scoped through the FRMP process.
- The scoping study report is finalised in consultation with OEH and the scoping study grant is acquitted.

Once all of the required information detailed in Section 3 above is available through either the completion of a scoping report or the FRMP process, the following steps apply:

- The council submits a funding application for the VP scheme to OEH during a funding round. Standard details relating to the provision of grants and a sample funding agreement are available at [www.environment.nsw.gov.au/coasts/Floodgrants.htm](http://www.environment.nsw.gov.au/coasts/Floodgrants.htm).
- The application should outline the scope of the VP scheme, progress on scheme implementation to date and the number of properties that the council wishes to purchase in the three-year funding round in priority order. The council must also submit the accompanying *New Works Project Ranking Form* available at [www.environment.nsw.gov.au/coasts/Floodgrants.htm](http://www.environment.nsw.gov.au/coasts/Floodgrants.htm)
- OEH reviews the funding application and confirms that all required information to make an assessment is available. If insufficient evidence has been provided, additional information will be requested from the council. If not already completed, this may require the completion of a specific study to scope the VP scheme as outlined above.

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<sup>3</sup> In the context of VP, 'solatium' is the compensation for non-financial disadvantage resulting from the necessity of a person to relocate their principal place of residence.

- Applications are reviewed by the State Flood Mitigation Assessment Committee and recommendations made to the Minister for approval. Consideration of funding for all flood risk management projects is based on statewide prioritisation for a maximum three-year period. Where a VP scheme is considered a priority and therefore recommended for funding, this is generally provided through access to the statewide Voluntary Purchase/Voluntary House Raising Pool (VP/VHR Pool) for a three-year period.
- If approved, the council will be notified by OEH that they have been given access to the VP/VHR Pool and outlining the conditions of access to the pool for VP.

## **Purchasing properties**

The council approaches eligible property owners in the VP scheme in priority order. However, given the voluntary nature of VP, the owners of these properties may not be willing to sell when initially approached and the owners of properties with lower priority in the VP scheme can then be approached. The council may wish to seek non-binding expressions of interest from a number of owners to expedite this process.

For each property:

- Where an owner is interested, the council should advise OEH and confirm that funds are available from the VP/VHR Pool for the purchase.
- The council should obtain a valuation in accordance with the Valuer General requirements to provide a range that is considered fair and equitable in relation to market value. This provides a basis for determining the maximum value that is eligible for subsidy. The valuation should assume no VP scheme is in place, consider the requirements for minimum floor levels due to flooding, but disregard any flood-related development constraints that may apply on that land due to its flood hazard. The valuation should be undertaken by a registered land and house valuer.
- The council should negotiate with the owners in accordance with its procedures.

Before entering into a binding contract with a recipient for VP or bidding at an auction, the council must:

- receive written confirmation from OEH that funds are still available from the VP/VHR pool as this may have altered due to the timescales involved
- submit a work plan for the purchase of the property, in accordance with the template provided on the OEH website at [www.environment.nsw.gov.au/coasts/Floodgrants.htm](http://www.environment.nsw.gov.au/coasts/Floodgrants.htm) – The work plan includes proposed milestones and associated payments for eligible costs. The council will receive written confirmation if the work plan is approved.
- enter into a funding agreement with OEH detailing the cost-sharing arrangement between the council and OEH for the estimated amount covering eligible costs as outlined in the approved work plan.

The council may then enter into a contract with a recipient for VP or bid at an auction.

## **Actions by councils to ensure outcomes**

Once the property is purchased, the house must be vacated as a matter of priority and remain vacant unless agreed to in writing by OEH.

Except for heritage-listed buildings or where agreed to in writing by OEH, once a property has been purchased as part of a VP scheme, all buildings/structures must be demolished in accordance with environmental, disposal, work safe and OH&S controls as soon as possible (ideally within six months) and either:

- the site rezoned to an appropriate land use compatible with the flood hazard (such as open space), or
- where rezoning is not expeditious, the application of development controls to the land in the interim to ensure that any future redevelopment is compatible with the flood hazard and flood function at the site.

For heritage-listed buildings or where agreed to in writing by OEH, the buildings can remain. However, the land should be rezoned to an appropriate flood-compatible use and occupancy of the building and property limited to uses compatible with the flood risk. The council should advise OEH of the intended use.

Grant funding would be provided in accordance with the milestones in the approved work plan following submission of an expenditure certificate and milestone report to OEH. This should include evidence of completion of the stage, that is, completion of scoping study, property purchase and/or demolition.

Any profits from the sale of land purchased under a VP scheme funded from the VP/VHR pool must be returned to the pool, in line with the funding ratio, prior to the grant being acquitted.

### **Monitoring and review**

The council is required to keep OEH informed of progress in line with the work plan. Where difficulties arise and the council is unable to spend the agreed grant amount under the funding agreement in the required timeframe, the council is required to inform OEH as soon as possible to enable other VP/VHR projects to proceed.

The council should review the scope of a VP scheme every three years or before submitting a new application for funding under the program. This review should confirm the eligibility and priority of the properties under the scheme and be submitted to support the application.

### **Acquittal**

Grants should be acquitted (as outlined in the agreed funding agreement) in line with funding agreements and associated documentation provided. This should include evidence of the transfer of the land into the council's name and the submission of a final report in accordance with the template provided on the OEH website.

Where a purchase is not completed and costs have been incurred for valuations, a claim may be submitted to OEH supported by evidence of the expenditure for payment.

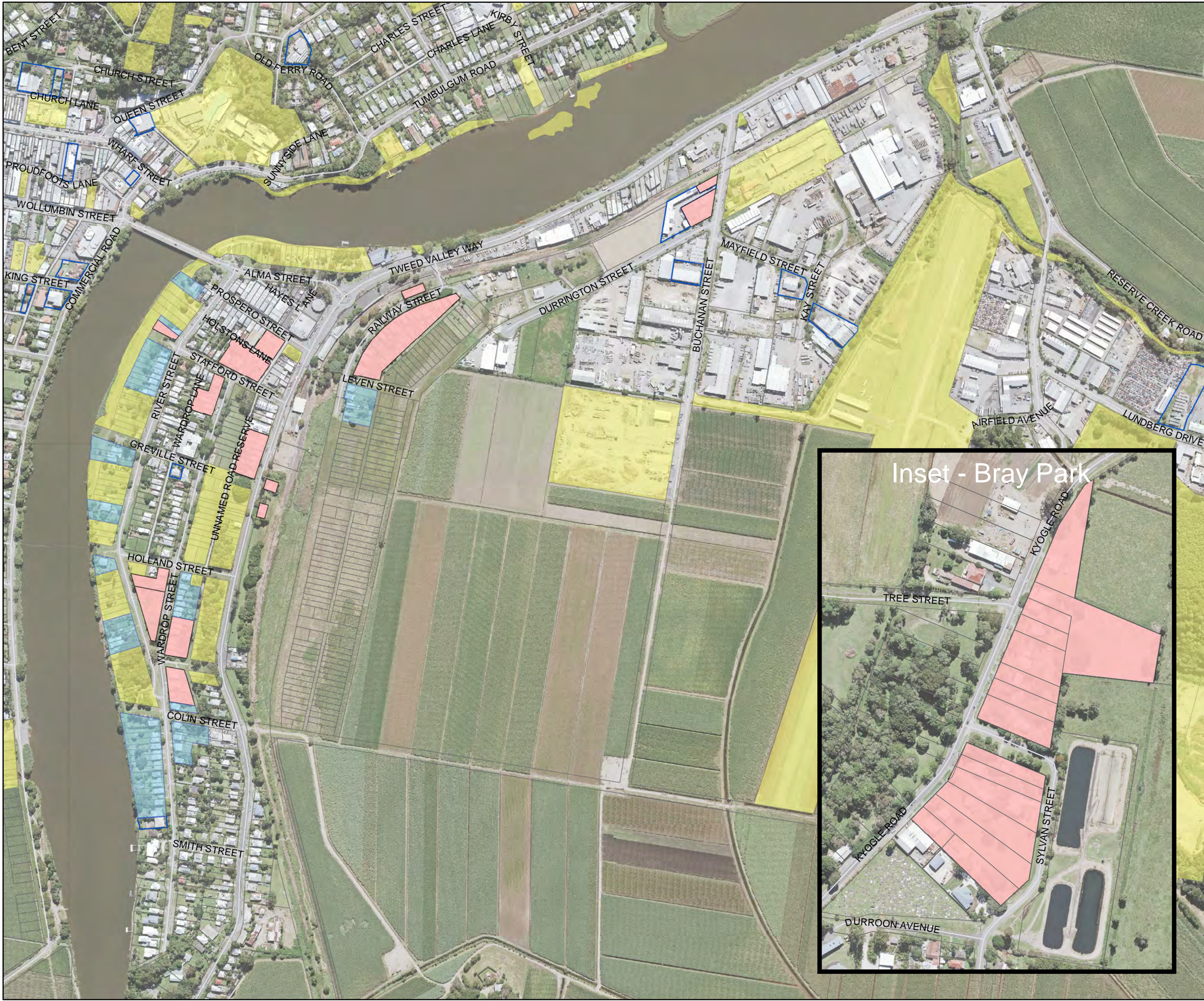
## **8. References**

Department of Infrastructure, Planning and Natural Resources (2005), [Floodplain Development Manual](#), New South Wales Government, Sydney

## Appendix 4 – Future Expanded Voluntary House Purchase Scheme – Map

# South Murwillumbah and Bray Park

## Future Expanded VHP Scheme Area



### Legend

- Future Expanded VHP Scheme Area
- Designated VHP Scheme Area
- Public Land

Civic and Cultural Centre  
 3 Tumbulgum Road  
 Murwillumbah NSW 2484  
 PO Box 816  
 Murwillumbah NSW 2484  
 T | (02) 6670 2400 | 1300 292 872  
 F | (02) 6670 2429

  
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