DRAFT FLOODPLAIN RISK MANAGEMENT MEASURES FOR OAKEY

Toowoomba Regional Council
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1. Purpose of this document

Since 2017 Toowoomba Regional Council (Council) has been building a Floodplain Risk Management Plan (FRMP) for Oakey to protect people and property in the event of flooding. This report presents draft floodplain risk management measures developed as part of the FRMP which are currently open for public comment.

2. Background

The Flood Risk Assessment, Planning Evaluation and Scheme Amendment (FRAPESA) project was established during 2015 in response to severe region-wide flood events in late 2010 and early 2011. The overriding goal of FRAPESA is to build a safer, stronger, more resilient region by developing a long-term plan to manage and reduce the impacts of flooding.

A key component of the project is amending the Toowoomba Region Planning Scheme to include a robust set of land use planning regulations which meet State Government requirements.

As part of FRAPESA, the communities of Cooyar, Crows Nest, Jondaryan, Maclagan, Oakey, Quinalow and Yarraman were identified as high priority areas requiring further floodplain risk management analysis. This determination was based on property impacts, isolation, lack of warning time and impacts on vulnerable uses.

In 2013 Council commissioned a flood study of the Oakey township as part of a wider effort to improve emergency management and infrastructure design in the Toowoomba Region. Following this study Council developed a flood early warning system, flood maps and flood intelligence cards to improve community awareness of flood risk and enhance disaster management.

In 2015 an overland flow path mapping study was completed for Oakey to supplement the Oakey flood study. The study’s objective was to define existing overland flow path extents, assess the capacity of current stormwater infrastructure to support infrastructure planning and identify hotspots to target future investigations.

The flood and overland flow path mapping studies formed part of the first stage of the floodplain risk management process.

3. Floodplain Risk Management Plans

The purpose of these plans is to assess flood risk and propose mitigations to manage the impacts of flooding in the communities of Cooyar, Crows Nest, Jondaryan, Maclagan, Oakey, Quinalow and Yarraman. The ultimate aim of the plans is to protect our communities’ lives, property and wellbeing. In total six plans are being developed. Maclagan and Quinalow are being undertaken together as one study due to the close proximity of the towns.
4. Floodplain risk management measures

As part of the Oakey FRMP, floodplain risk management measures have been investigated where flooding poses a risk to life and/or the potential for property damage. These measures are intended to reduce the negative impacts of flooding and include:

- bridge widening
- community awareness and education
- diversion channels
- flood intelligence cards
- levees
- local flood emergency plans
- removal of railway embankments
- voluntary house raising
- voluntary purchase.

4.1 Recommended floodplain risk management measures for community consultation

Six measures recommended as potential options to reduce flood risk in Oakey are listed below. The community is invited to provide feedback on these measures from Tuesday 23 April to Tuesday 14 May 2019 2019. For further information about the community consultation process, refer to Section 5 Community consultation.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
<th>Why recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community awareness and education</td>
<td>Provide community awareness and education around local flood scenarios, warning services, maintaining personal safety and protecting property through a variety of communication mechanisms, e.g. online and printed material and community events.</td>
<td>• Will improve the community’s response to flooding to maximise personal safety, minimise property and infrastructural damage and enhance community recovery.</td>
</tr>
<tr>
<td>Diversion channel north of Wilthorn Kelvinhaugh Road</td>
<td>Construct a diversion channel north of Wilthorn Kelvinhaugh Road. The diversion channel would be approximately 5km long and 45m wide.</td>
<td>• Has the potential to reduce the risk to flood affected properties. Note on recommendation: - Additional investigations into the feasibility of this option will be required.</td>
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<tr>
<td>Flood intelligence cards</td>
<td>Provide cards explaining the possible effects of a flood. Cards would be based on estimates of flood behaviour and particular effects which may occur at heights in a variety of flood events.</td>
<td>• Will improve the community’s response to flooding to maximise personal safety, minimise property and infrastructural damage and enhance community recovery.</td>
</tr>
<tr>
<td>Levee along Devon Park Boundary Road</td>
<td>Construct a levee along Devon Park Boundary Road. The levee would be approximately 650m long.</td>
<td>• Has the potential to reduce the risk to flood affected properties. Note on recommendation: - Additional investigations into the feasibility of this option will be required.</td>
</tr>
<tr>
<td>Local flood emergency plans</td>
<td>Develop a local plan to coordinate emergency response and management prior to, during and following a flood event.</td>
<td>• Will improve the community’s response to flooding to maximise personal safety, minimise property and infrastructural damage and enhance community recovery.</td>
</tr>
<tr>
<td>Voluntary house raising</td>
<td>Raise the floor level of houses to reduce damage to buildings and contents.</td>
<td>• Has the potential to reduce the risk to flood affected properties up to the design level.</td>
</tr>
</tbody>
</table>
### 4.2 Floodplain risk management measures not recommended

The seven measures explained below are not recommended as potential options to reduce flood risk in Oakey.

<table>
<thead>
<tr>
<th>Measure</th>
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</tr>
</thead>
</table>
| **Levee south of the Railway Bridge** | Construct two levees around the township on the southern side of the railway tracks, on both sides of Oakey Creek. The total levee length would be approximately 2.9km with an average height of 1.5m. | - Has the potential to increase flood risk in areas outside the levee.  
- Has the potential to hinder local drainage.  
- The perception of increased safety can result in decreased community preparedness in the event a flood overtops the levee.  
- Has the potential to prevent the flow of water to valuable environmental areas.  
- Option may intersect with a heritage area at the northern end of Cory Street.  
- From a social perspective, the size of the levee is likely to impact the visual amenity of the area.  
- Has the potential to generate multiple social issues as only a selected number of properties within the entire township are protected.  
- Although a few buildings are protected by this option, the overall decrease in damages is not sufficient to justify the cost of the option. |
| **Levee north and south of the Railway Bridge** | Construct two levees on either side of Oakey Creek, from Corfe Road (north of the railway tracks) to Cunningham Street and Voll Avenue (south of the railway tracks. The levee would be approximately 6.7km long, with an average height of 3.3m. | - Has the potential to increase flood risk in areas outside the levee.  
- Has the potential to hinder local drainage.  
- The perception of increased safety can result in decreased community preparedness in the event a flood overtops the levee.  
- Has the potential to prevent the flow of water to valuable environmental areas.  
- Option is of environmental concern as the levee may intersect an ecologically significant area north of the railway tracks.  
- Option may intersect a cultural heritage area at the northern end of Cory Street.  
- From a social perspective, the size of the levee is likely to have an impact on the visual amenity of the area.  
- Although a significant amount of buildings are protected by this option, the overall decrease in damages is not sufficient to justify the cost of the option. |
| **Levee north of the Railway Bridge** | Construct two levees on either side of Oakey Creek, north of the Railway Bridge to Corfe Road. The levee would be approximately 4.5km long, with an average height of 2.5m. | - Has the potential to increase flood risk in areas outside the levee.  
- Has the potential to hinder local drainage.  
- The perception of increased safety can result in decreased community preparedness in the event a flood overtops the levee.  
- Has the potential to prevent the flow of water to valuable environmental areas.  
- Has the potential to result in a negligible degree of property protection.  
- Has the potential to cause a number of properties to be inundated above floor level. |
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<tr>
<th>Measure</th>
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</tr>
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</table>
| Bridge widening at the Railway  | Replace the existing Railway Bridge and Bridge Street Bridge over Oakey Creek. | • Will potentially create social issues such as exclusion and potential conflict within the Oakey township.  
• Option is likely to result in a negligible degree of property protection.  
• The overall decrease in damages is not sufficient to justify the cost of the option |
| and Bridge Street               |                                                                             |                                                                                                                                                                                                                        |
| Bridge widening at Warrego      | Replace the existing Warrego Highway Bridge over Oakey Creek.                | • Option is likely to result in a negligible degree of property protection.                                                                                                                                              |
| Highway                         |                                                                             |                                                                                                                                                                                                                        |
| Removal of Railway Embankment   | Remove the existing railway embankment, west of Gladsby Street.              | • Option is likely to result in a negligible degree of property protection.  
• Has the potential to cause a number of properties to be inundated above floor level.  
• Overall there are more properties that are worse off than those that benefit. |
| Voluntary purchase              | Purchase properties, demolish buildings and convert land to a lower risk land use, e.g. open space. | • Council has a responsibility to the community to appropriately manage its funds. At this time buying properties with a flood risk is not considered to be an appropriate use of community money.  
Notes on recommendation:  
- Council is not creating flood risk it is recognising existing risks and putting in place development controls that ensure future development doesn't put people or property at risk.  
- The Planning Act 2016 includes provision for the payment of compensation to land owners who have suffered a financial loss due to a ‘planning change’. |
5. Community consultation

5.1 Current consultation
Community consultation to invite feedback on the draft floodplain risk management measures presented in section 4.1 Recommended floodplain risk management measures for consultation is open from Tuesday 23 April to Tuesday 14 May 2019. Feedback can be made up until 5pm on Tuesday 14 May 2019 by:

1. emailingCouncil on yoursay@tr.qld.gov.au, Attn: Floodplain Risk Management
2. mailing written feedback to the Chief Executive Officer, Toowoomba Regional Council, PO Box 3021, TOOWOOMBA QLD 4350, Attn: Floodplain Risk Management
3. submitting written feedback in person at a Customer Service Centre
4. phoning Council on 131 872 to provide feedback to the project team or request a meeting.

5.2 Previous consultation
Since 2015 Council has been working with property owners, industry groups, government stakeholders, community organisations and emergency services across the region to gather vital flood information.

Four rounds of region-wide consultation to collect feedback around flood risk, potential planning responses and flood mitigation options were undertaken with the Oakey community from 2015 to 2018.

For further information about community consultation please visit yoursay.tr.qld.gov.au/flood-resilience or contact Council by calling 131 872 or emailing yoursay@tr.qld.gov.au.
6. Next steps

Consultation feedback will be reflected in the final floodplain risk management measures where applicable.

The final floodplain risk management measures will be presented to Council for endorsement in mid-2019 and then shared with the community.

For more information about the project, please visit yoursay.tr.qld.gov.au/floodplain-risk-management or contact Council by calling 131 872 or emailing yoursay@tr.qld.gov.au.