

Flood Protection & River Management in the Te Awarua-o-Porirua Whaitua

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This Presentation:

- What Flood Protection does
- Watercourse maintenance
- Affected party approval
- Importance of stream setbacks
- Porirua Stream flood hazard assessment
- Opportunities



What we do

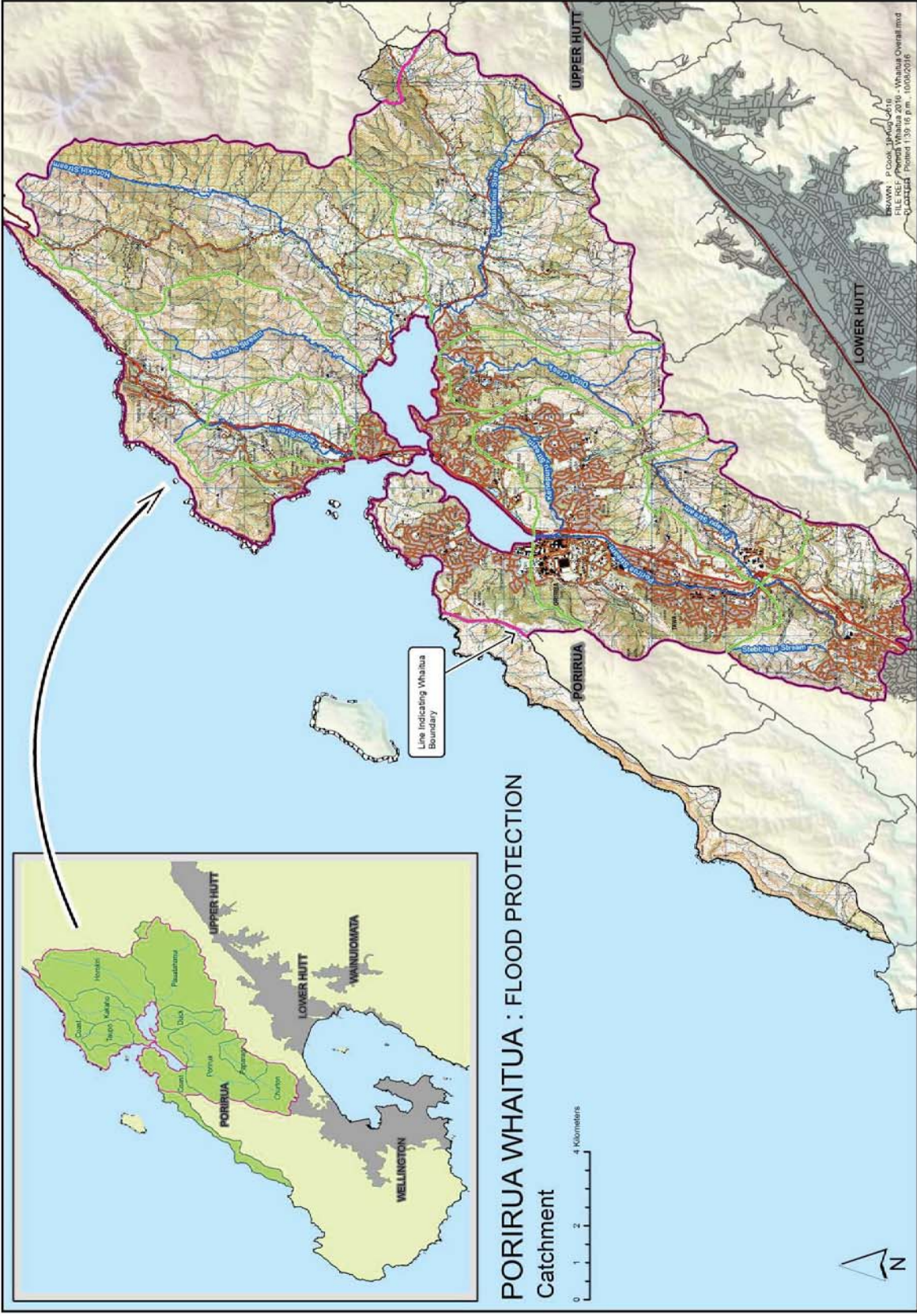
- Maintain waterways and river management structures e.g. stopbanks and channels
- Enhance the river environment through restoration planting and walkways
- Advise the community about flood hazards
- Investigate flood risk and help the community decide on appropriate risk management
- Prepare and implement floodplain management plans



Why is this important

- Because the Wellington Region has some of the most developed floodplains in the country;
- And floodplains
FLOOD!



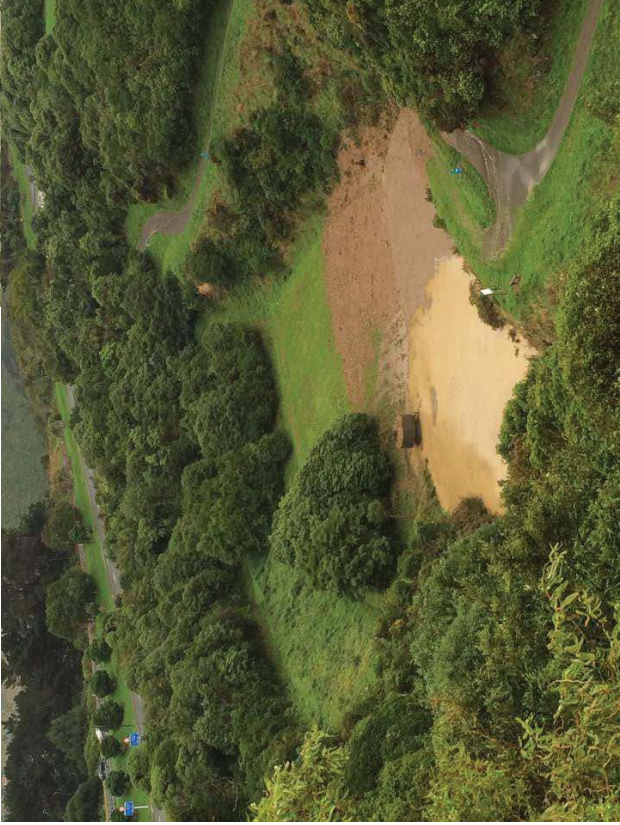




Stebbings Detention Dam



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Seton Nossitor Detention Dam



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Glenside Debris Arrestor



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Porirua Stream – Wall Place



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Porirua CBD

Who is responsible?

- Maintenance of watercourses is the responsibility of the land owner
- Soil Conservation & Rivers Controls Act 1941 empowers GWRC to develop flood & erosion measures if it chooses
- TLA's have similar empowerment under other legislation



Watercourses Agreement (WCA)

- Agreement between the TLA's in the western part of the region for watercourse management
- Established following the 1976 floods and the damage that occurred to urban properties as a result of poorly maintained streams
- GWRC accepted responsibility for the major rivers and streams that are part of a scheme or flowed through more than one TLA



What is maintenance under the WCA?

- Restricted to clearing obstructions to flood flows – fallen trees and debris
- Excludes protecting private property from erosion or remedying erosion on private property



Watercourse Maintenance

- GWRC
 - Porirua Stream & detention dams
 - Takapu Stream
 - Kenepuru Stream
 - Taupo Stream
- Annual Maintenance Budget \$154,000

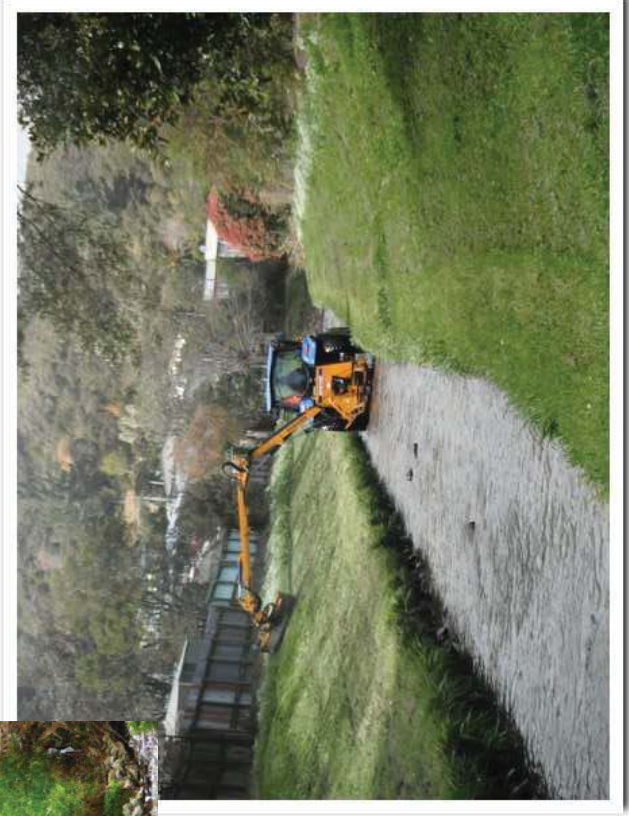


How is maintenance funded?

Stream	TLA	Regional Share	District Share
Porirua Stream	WCC/PCC	2/3	1/3
Takapu Stream (urban)	WCC	1/2	1/2
Kenepuru Stream (from main junction)	PCC	1/2	1/2
Taupo Stream (urban)	PCC	1/2	1/2









Porirua Stream gravel extraction July 2016

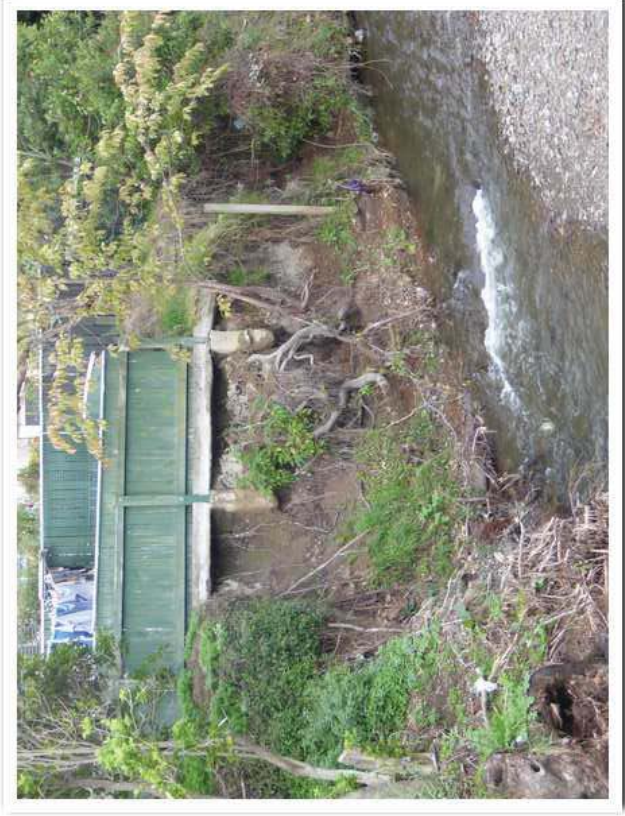
Erosion Problems



Porirua Stream 13 Tawa St. Erosion 16 Feb. 04



Porirua Stream - Linden Erosion. 4 August 2006



Porirua Stream Linden May 2016

Affected Party Approval

- For works affecting watercourses
GWRC maintains
- For structures within 5m of any water body, or 10m of Porirua Stream and tributaries.



Need to show

- Fit for purpose,
- Will perform as designed,
- Will not cause future problems
- Sufficient information on what is being approved
- Can not be subject to conditions





Deck 24 Oxford Street over Porirua Stream 17 Feb 04 –
7 yr return period flood event on the Porirua Stream



3 Melville St, Tawa



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Maintenance Access



Porirua Stream Tawa industrial section May 2004

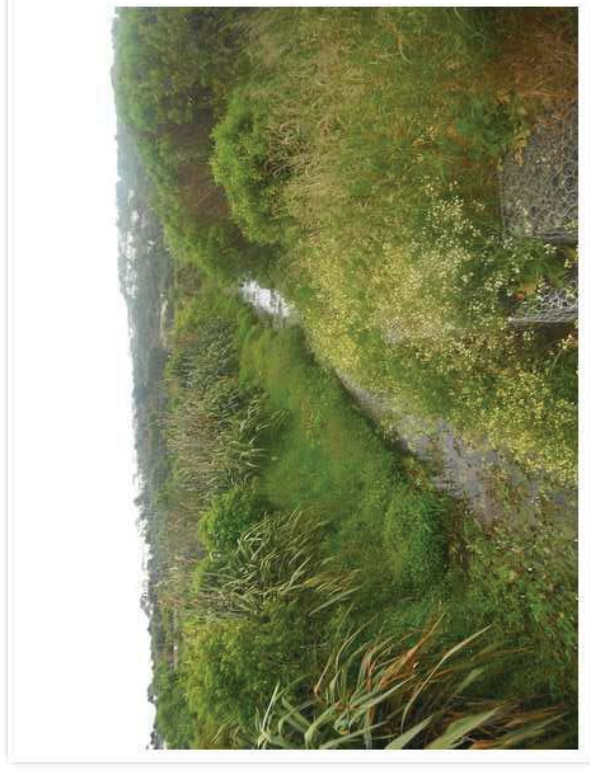


Porirua Stream erosion Kenepuru Drive May 2015



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Why are set-backs from watercourses Important?

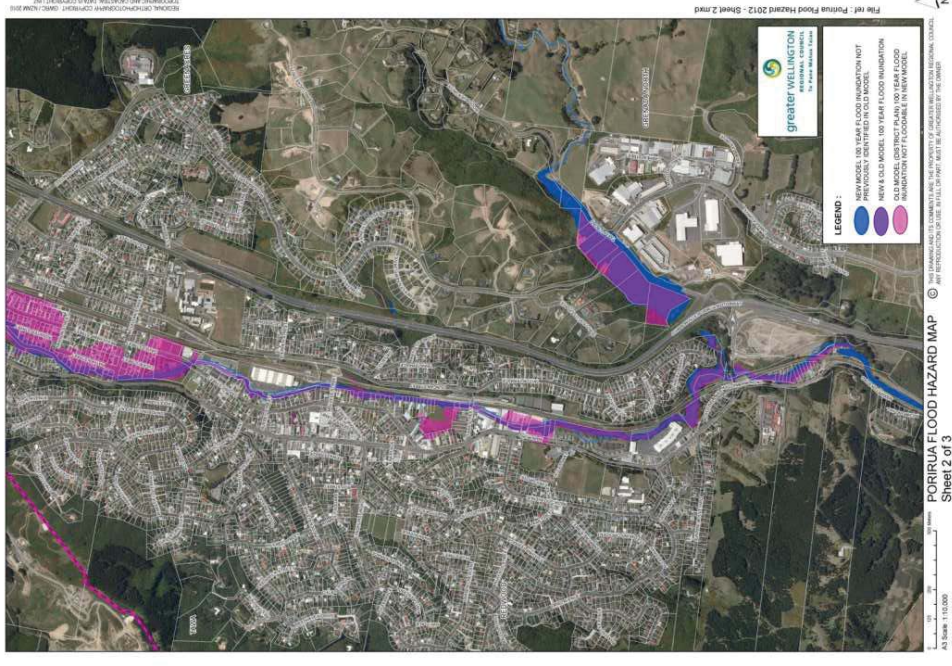




Duck Creek Porirua

Porirua Stream Flood Hazard Assessment

- Updated modelling of Porirua Stream flooding
- WCC carrying out stormwater modelling
- Dam break assessment



Rural Areas

- Advice on flood levels and waterway requirements
- Advice on erosion and flooding problems
- Isolated works funding – where there is a community/regional benefit



Rural Areas

- Give the watercourse adequate space
- Avoid realignment and straightening
- Plan secondary flow paths
- Consider planting species
- Think about on-going maintenance
- Transfer river corridors to public ownership as development intensifies



Opportunities

- Enhancement of the Porirua Stream corridor
- When planning future growth areas provide for rivers and streams to have adequate space
- Review levels of service





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