

## Kopuaranga River



The Kopuaranga River is defined by the surface water catchment upstream of the confluence with the Ruamāhanga River.

### Water use characteristics

- The minimum flow is monitored at Palmers
- Use of water in catchment:
- Number of consented takes ...

### Key issues and drivers

- River management choices are a big issue
- Mahinga kai role particularly important
- Silt build up at mouth may be affecting fish behaviours
- Sediment control required and cooling of water temperature to control algae

### Draft policy preferences

- Raise minimum flow progressively to 90% habitat protection
- Reduce allocation amount to volume of existing consents
- Improve riparian vegetation for erosion and sediment control, temperature management and control of algae
- Seek options to remove willows
- Sub-catchment group to develop catchment plan
- Seek on-farm water storage to increase resilience but ensure flushing flows are maintained

### Water quantity limits

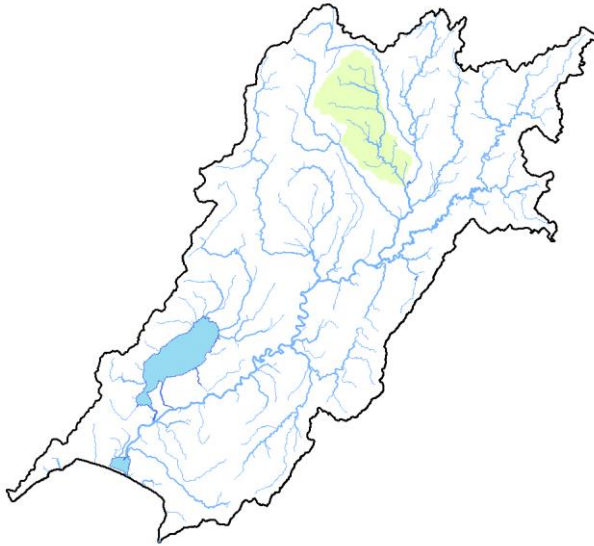
	Objective % habitat space	Allocation amount		Minimum flow
		L/sec	% 7d MALF	L/sec
Ruamāhanga WIP	90	150	25	280
Existing (PNRP)	80	180	30	270

### What happens at minimum flow?

All consented takes cease, including Category A groundwater takes

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## Waipoua River



The Waipoua River is defined by the surface water catchment upstream of the confluence with the Ruamāhanga River.

### Water use characteristics

- The minimum flow is monitored at Mikimiki Bridge
- Use of water in catchment:
- Number of consented takes ...

### Key issues and drivers

- Model river for urban and rural management
- More information needed (E.g. PNRP method 10, geomorphology)
- Land use change (lifestyle blocks)
- Poor water quality - drinking water, swimming, high water temp, periphyton, stormwater
- Mahinga kai, harvesting materials, mana whenua values (e.g. waka kaikokirimarae), baptism
- Multiple river/flood management objectives
- Recreation (e.g. more pools)
- Greater community understanding and ownership

### Policy preferences

- Raise minimum flow progressively to 90% habitat protection (staged over a period of time to be confirmed by Committee)
- No change to allocation limit
- Increase shading of river with riparian plantings
- Restore wetlands
- Restore Tanks Pool for swimming purposes

## Waipoua River

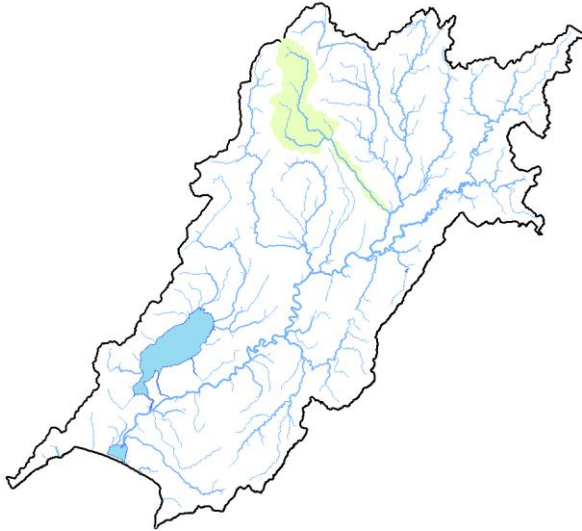
### Water quantity limits

	Objective % habitat space	Allocation amount		Minimum flow
		L/sec	% 7d MALF	L/sec
Ruamāhanga WIP	90	130	27	340
Existing (PNRP)	68	145	30	250

### What happens at minimum flow?

- All consented takes (including Category A groundwater) cease, other than community water supply takes
- Community water supply takes reduce take to volume required for health needs of people only

## Waingawa River



The Waingawa River is defined by the surface water catchment upstream of the confluence with the Ruamāhanga River

### Water use characteristics

- The minimum flow is monitored at Kaituna
- Use of water in catchment:
  - Masterton town water supply
  - Taratahi water race
- Number of consented takes ...

### Key issues and drivers

- Extent of river braiding
- Extent of losses to groundwater
- Sizable water take below minimum flow (public water supply, water races, category A groundwater)
- Use of allocated water should be more efficient – this includes improving efficiency of domestic take (e.g. MDC municipal supply take) and water race takes and irrigating efficiently
- Potential water storage location (Black Creek)

### Policy preferences

- Raise minimum flow the level currently in resource consents, at which takes cease or reduce (depending on use of water)
- No change to allocation limit
- Restrict community water supply and water races takes to takes for the health needs of people and stock drinking needs when river is low
- Require Category A groundwater takers to fully cease take at minimum flow, similarly to surface water takes
- Promote and enhance efficient use by all users, including community water supply, water races and irrigation takes, including through using good management practice e.g. water storage
- Work with Masterton District Council on water conservation programmes
- Undertake riparian planting

## Waingawa River

### Water quantity limits

	Objective % habitat space	Allocation amount		Minimum flow 1	Minimum flow 2
		L/sec	% 7d MALF	L/sec	L/sec
<b>Ruamāhanga WIP</b>	90	1200	65	1900	1700
Existing (PNRP)	85+	1200	65	1100	

#### What happens at minimum flow 1?

- All consented surface water takes reduce by 50%
- Category A groundwater takes reduces by 50%
- No action by community supply takes or water race takes

#### What happens at minimum flow 2?

- All consented takes (including Category A groundwater) cease, other than community water supply and water race takes
- Community water supply takes reduce take to volume required for health needs of people only
- Water race takes reduce to health needs of people and stock drinking water needs only

## Upper Ruamāhanga River



The Upper Ruamāhanga River is defined by the surface water catchments of the Ruamāhanga River upstream of the confluence with the Waiohine River, excluding tributaries of the Parkvale Stream and the Waingawa, Waipoua and Kopuaranga rivers.

### Water use characteristics

- The minimum flow is managed at Wardells
- Use of water in catchment:
  - Opaki water race
- Number of consented takes ...

### Key issues and drivers

- High recreation values including kayaking and swimming at Double Bridges, Kokotau, Te Ore Ore, Cliffs
- Requires protection of wahi tapu sites and mahinga kai
- Contains valued aquatic ecosystems
- Supplies substantial volume of water for irrigation purposes, with 60 consented takes
- Current river/flood management practice does not achieve multiple objectives, particularly for in-river values
- Water quality is impacted, including by wastewater discharges
- Fairness to all users
- Water storage

### Policy preferences

- Raise minimum flow progressively (staged) to 90% habitat protection
- No change to allocation limit
- Restrict water races and Category A groundwater at minimum flow
- Promote efficient use (water races, irrigation) including good management practice (E.g. water storage)
- Require users to substantiate they are using water efficiently
- Put in place timeframes for improving water use efficiency and reducing water takes to limits
- Require water storage and efficient water use measures in new builds
- Review efficiency conditions in existing consents

## Upper Ruamāhanga River

### Water quantity limits

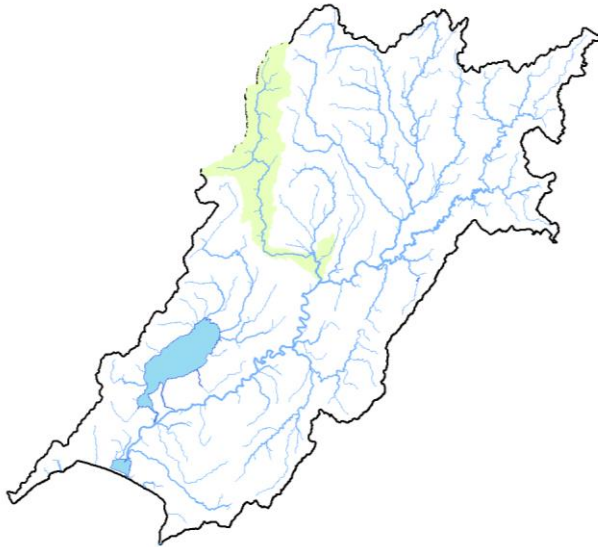
	Objective % habitat space	Allocation amount		Minimum flow
		L/sec	% 7d MALF	L/sec
Ruamāhanga WIP	90	1925	40	3250
Existing (PNRP)	67	1925	40	2400

### What happens at minimum flow?

- All consented takes (including Category A groundwater) cease, other than community water supply takes
- Water race takes reduce to health needs of people and stock drinking water needs only



## Waiohine River



The Waiohine River is defined by the surface water catchment upstream of the confluence with the Ruamāhanga River.

### Water use characteristics

- The minimum flow is managed at the Gorge
- Use of water in catchment:
  - Greytown town water supply
  - Moroa water race
- Number of consented takes ...

### Key issues and drivers

- Existing high water quality should be maintained
- High recreational values
- River is impacted by restricted margins and flood management activities
- Wahi tapu sites are located along river

### Policy preferences

- Increase minimum flow to provide for 90% habitat protection
- Reduce allocation amount to volume of existing consents
- Give the river more room through river/floodplain management planning
- Restrict water races to takes for the health needs of people and stock drinking purposes when river at low flow
- Targeted riparian planting
- Promote efficient water use

## Waiohine River

### Water quantity limits

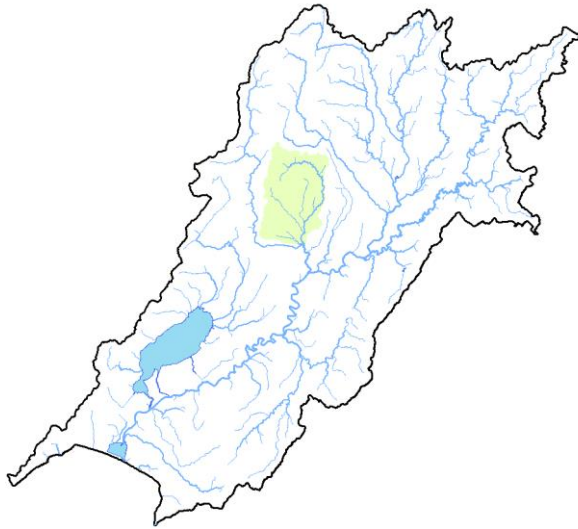
	Objective % habitat space	Allocation amount		Minimum flow
		L/sec	% 7d MALF	L/sec
<b>Ruamāhanga WIP</b>	90	1005	32	3040
Existing (PNRP)	65+	1590	50	2300

### What happens at minimum flow?

- All consented takes (including Category A groundwater) cease, other than community water supply takes and water race takes
- Community water supply takes reduce take to volume required for health needs of people only
- Water race takes reduce to health needs of people and stock drinking water needs only

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## Mangatarere Stream



The Mangatarere Stream is defined by the surface water catchment upstream of the confluence with the Waiohine River.

### Water use characteristics

- The minimum flow is monitored at the Gorge
- Use of water in catchment:
  - Carrington water race
- Number of consented takes ...

### Key issues and drivers

- Reduce community water supply and water race takes
- “New water” for community supply
- Stream is highly connected with shallow groundwater and goes underground in summer
- Water quality and ecological health are impacted
- Stream includes a number of significant trout spawning areas

### Policy preferences

- No change to minimum flow
- Restrict community water supply, water races and Category A groundwater at minimum flow
- Support Restoration Society efforts
- Promote water quality and ecological health through riparian planting, wetlands
- Promote wetlands
- Meter lifestyle water use

## Mangatarere Stream

### Water quantity limits

		Objective % habitat space	Allocation amount		Minimum flow 1	Minimum flow 2
			L/sec	% 7d MALF	L/sec	L/sec
Ruamāhanga WIP	Upper	90	475	144	330	240
	Lower				270	200
Existing (PNRP)	Upper	90+	240			
	Lower		200			

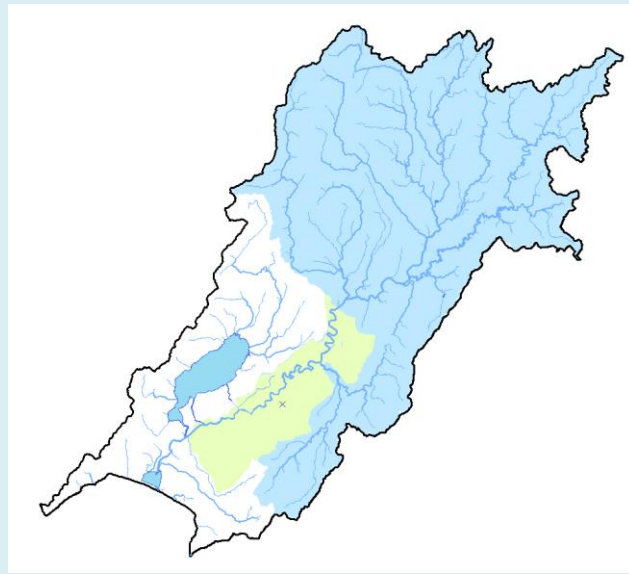
#### What happens at Minimum flow 1?

- All consented surface water takes reduce by 50%
- Category A groundwater takes reduces by 50%
- In upper catchment, water races reduce
- In lower catchment, no action by community supply takes or water race takes

#### What happens at Minimum flow 2?

- All consented takes (including Category A groundwater) cease, other than community water supply and water race takes
- Community water supply takes reduce take to health needs of people only
- Water race takes reduce to health needs of people and stock drinking water needs only

## Lower Ruamāhanga River



The Lower Ruamāhanga River is defined by the surface water catchment upstream of the confluence with the Lake Wairarapa outflow

### Water use characteristics

- The minimum flow is managed at the Waihenga recorder
- Use of water in catchment...
- Number of consented takes ...

### Key issues and drivers

- High mahinga kai values, including flounder and whitebait
- Wahi tapu sites
- Valued for biodiversity, recreation and fisheries
- Te Mana o Ruamāhanga at least as high as elsewhere in the whaitua
- Operate the lower Ruamāhanga River at a high water level
- Habitat loss may not relate to low flow

### Policy preferences

- No change to minimum flows
- Restrict allocation amount to volume of existing consents
- All takes (surface water and Category A groundwater) subject to minimum flows
- Increase number and area covered by wetlands
- Improve habitat quality and water quality

### Water quantity limits

	Objective % habitat space	Allocation amount		Minimum flow 1	Minimum flow 2
		L/sec	% 7d MALF	L/sec	L/sec
Ruamāhanga WIP	90	2445	83	9200	8500
Existing (PNRP)	90	2445	83	8500	

### What happens at Minimum flow 1?

- All consented surface water takes reduce by 50%
- Category A groundwater takes reduces by 50%

## Lower Ruamāhanga River

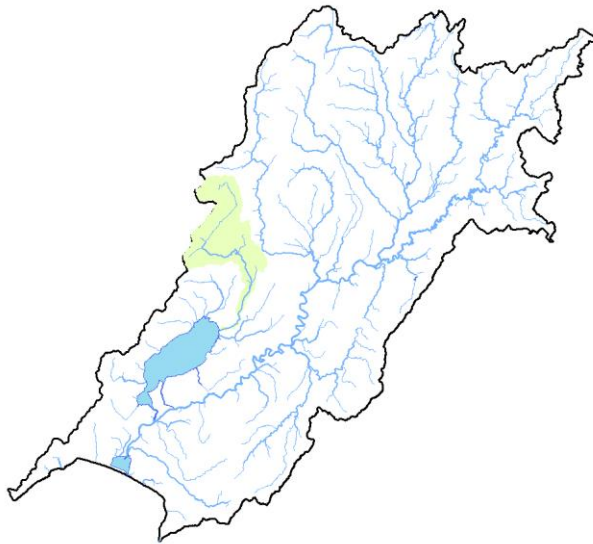
- No action by community supply takes

### What happens at Minimum flow 2?

- All consented takes (including Category A groundwater) cease, other than community water supply and water race takes
- Community water supply takes reduce take to health needs of people only
- Water race takes reduce to health needs of people and stock drinking water needs only

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## Tauherenikau River



The lower Tauherenikau River is defined by the surface water catchment upstream of the confluence with the Lake Wairarapa outflow.

### Water use characteristics

- The minimum flow is managed at the Gorge
- Use of water in catchment...
  - Longwood water race
- Number of consented takes ...

### Key issues and drivers

- River management is the big issue in the Tauherenikau
- Silt build up at the river mouth can be addressed through riparian management

### Policy preferences

- No change to minimum flow
- Reduce allocation amount to volume of existing consents
- Promote riparian management
- Promote sub-catchment community group
- Restrict Category A groundwater takes at minimum flow

### Water quantity limits

	Objective % habitat space	Allocation amount		Minimum flow
		L/sec	% 7d MALF	L/sec
<b>Ruamāhanga WIP</b>	90	235	29	1300
Existing (PNRP)	85+	410	50	1100

### What happens at Minimum flow?

- All consented surface water takes cease
- Category A groundwater takes cease
- Water race takes reduce to health needs of people and stock drinking water needs only