Primary Allocation Minimum Flow options

We've identified options for summer and winter primary allocation minimum flows in the Manuherikia Catchment. We'd like your feedback on which you prefer.

Primary allocation options

No change is proposed to the primary allocation limit for the Manuherikia as this is already provided for in the plan. It is therefore proposed to keep the 3,200 l/s limit for the Manuherikia Catchment from headwaters to the confluence with the Clutha/Mata-Au unchanged in Schedule 2A.

Summer minimum flow options: 1 October – 30 April

Minimum Flow Monitoring Site(s)	Option A	Option B	Option C	Option D	*Status Quo*	*Naturalised Low Flow*
Manuherikia River at Alexandra Campground	1,250 l/s	1,500 l/s	1,750 l/s	2,500 l/s	*N.A.*	*3,900 l/s*
Manuherikia River at Ophir *	1,500 l/s	1,750 l/s	2,000 l/s	2,500 l/s	*820 l/s*	*3,200 l/s*
Dunstan Creek at Beattie Road *	400 l/s	500 l/s	600 l/s	600 l/s	*N.A.*	*934 l/s*

** If these sites are included in chosen option.*

Pros and cons:

Option A	Option B	Option C	Option D
• Instream values: Provides habitat for aquatic invertebrates, native fish and brown trout (adult and spawning) • Recreational values: Fishing. Other recreational opportunities (e.g. swimming, kayaking, rafting) at times restricted by low water depth • Amenity: Flow continuity with some shallow riffles • Water quality: Risk of algae • Consumptive uses: Some impacts on irrigators as water taking will be restricted at times. Minimum flow does not restrict permitted takes for domestic and stock water use	• Instream values: Maintains habitat for native fish Excellent habitat for brown trout (adult and spawning) and aquatic invertebrates • Recreational values: Fishing. Other recreational opportunities (e.g. swimming, kayaking, rafting) at times restricted by water depth. • Amenity: Flow continuity with some shallow riffles • Water quality: Risk of algae • Consumptive uses: Likely to have a modest impact on availability of water for irrigation. Minimum flow does not restrict permitted takes for domestic and stock water use	• Instream values: Habitat for native fish enhanced in Dunstan Creek and maintained elsewhere. Excellent habitat for brown trout (adult and spawning) and aquatic invertebrates • Recreational values: Fishing. Swimming restricted. Shallow riffles may affect navigation for kayaking, rafting. Other recreational opportunities are slightly restricted • Amenity: Good flow continuity but with some shallow riffles • Water quality: Reduced risk of algae • Consumptive uses: Likely to have an increased impact on availability of water for irrigation. Minimum flow does not restrict on permitted takes for domestic and stock water use	• Instream values: Excellent habitat for native fish, brown trout (adult and spawning) and aquatic invertebrates • Recreational values: Fishing. Other recreational opportunities, including swimming, similar to natural conditions • Amenity: Good flow continuity similar to natural conditions • Water quality: Risk of algae similar to natural conditions • Irrigation: Minimum flow is likely to have greatest impact on availability of water for irrigation. Minimum flow does not restrict on permitted takes for domestic and stock water use

Winter minimum flow options: 1 May – 30 September

Minimum Flow Monitoring Site	Option A	Option B	*Status Quo*	*Naturalised Mean Flow*
Manuherikia River at Alexandra Campground .	**4,000 l/s**	**6,000 l/s**	*N.A.*	*20,954 l/s*
Manuherikia River at Ophir *	**3,000 l/s**	**5,000 l/s**	*820 l/s*	*16,458 l/s*
Dunstan Creek at Beattie Road *	**600 l/s**	**1,200 l/s**	*N.A.*	*3,005 l/s*

** If these sites are included in chosen option*

Pros and cons:

Option A	Option B
Recreational opportunities maintained*	Recreational opportunities maintained*
Brown trout fishing opportunities maintained*	Brown trout fishing opportunities maintained*
Amenity maintained*	Amenity maintained*
Flow continuity maintained*	Flow continuity maintained*
No additional risk of algae*	No additional risk of algae*
Excellent brown trout habitat and spawning	Excellent brown trout habitat and spawning
Excellent habitat for native fish maintained	Excellent habitat for native fish maintained
Good habitat for aquatic invertebrates	Excellent habitat for aquatic invertebrates

** When compared to naturalised flows*