

Topic: DAM FLOW REGIME	
Issues	
	<p>The lack of variability/flushes in flows from the Opuha dam</p> <ul style="list-style-type: none"> <li>- Prolific didymo in the Opuha River cause serious problems for river ecosystems, commercial and recreational users. It is acknowledged that the group's ability to influence this is limited in the upper catchment (North and South Opuha) as we depend on floods to move it. However below the weir where the didymo is at its worst, the group have the means and a golden opportunity to influence it by artificial floods or regular flushes)</li> <li>- Limitations of dam infrastructure/weir</li> </ul> <p>The water quality in and below Lake Opuha</p> <ul style="list-style-type: none"> <li>- Low dissolved oxygen levels at times in lake</li> <li>- Iron and manganese</li> <li>- Sediment/silt deposits downstream</li> </ul> <p>The intake at the bottom of Lake Opuha</p> <ul style="list-style-type: none"> <li>- Financial impediment to fix</li> <li>- Question of who pays as it would benefit everyone</li> </ul> <p>The lack of natural flushes to 'piggyback' on in terms of artificial flushes from Lake Opuha (natural phenomena)</p> <p>The water quality in the Opihi River below the confluence</p> <ul style="list-style-type: none"> <li>- Nuisance phormidium growth</li> </ul>
What we would like to achieve	<p>Minimise the opportunity for didymo to develop</p> <p>Improve water quality in the Opuha without detrimentally affecting downstream users</p> <ul style="list-style-type: none"> <li>- Address phormidium</li> <li>- Ensure didymo does not build up to such a level that it impacts on downstream Opihi users when flushed.</li> </ul> <p>Protect opportunities for food gathering, fishing, contact recreation, cultural values</p> <p>Maintain an open river mouth as often as possible</p> <p>Maintain flow to irrigation abstractors / schemes</p> <p>Co-funding regime to improve dam infrastructure</p> <p>Achieve swimmable water, &amp; to enhance conditions suitable for a healthy river system &amp; its Inhabitants ( insects, trout, salmon, natives etc )</p>
Actions/recommendations for the zone committee	<p>That Zone Committee / Environment Canterbury investigate potential funding sources for a variable intake at the Opuha Dam</p> <ul style="list-style-type: none"> <li>- Collate existing studies, supporting information</li> <li>- Investigate funding sources</li> <li>- Coordinate support from other catchment groups</li> </ul> <p>That more variability is built into the flow regime, particularly the introduction of more regular flushes.</p>

	<p>That flushes be coincided with natural high rainfall / flow events</p> <ul style="list-style-type: none"> <li>- There may be triggers for on the levels of the Opihi and Te Ngawai</li> </ul> <p>That any flushes – ‘piggyback’ or regular – are to come out of the environmental flow ‘bucket’.</p> <p>That flexibility is built into the sub-regional, to allow it to be adaptable to different seasons, weather conditions etc, in order to maximise both the irrigation and environmental benefits of water.</p> <ul style="list-style-type: none"> <li>- Build flexibility to respond to both drought conditions and natural rain events</li> </ul> <p>That a stakeholder group is retained within the plan to oversee/guide this adaptability</p> <ul style="list-style-type: none"> <li>- The role of this stakeholder group is formalised</li> <li>- The stakeholder group has bottomlines / principles that it must work to.</li> </ul> <p>That the operation/implementation of the variable flow regime does not impact on irrigation, recreation or the river environment</p> <ul style="list-style-type: none"> <li>- E.g. do not coincide the increase in minimum flows in October with the first day of the fishing season as increase in flows can dislodge didymo.</li> </ul> <p>That the use of Tekapo water be investigated as a means of addressing the issues related to didymo and phormidium growth in particular. If the Opuha dam is to be able to release more flushing flows to help manage algae growth, additional water is required. Additional water will also serve the benefits of increased minimum flows and greater irrigation reliability. There could be environmental, social and economic benefits for the whole community, and if managed appropriately, also cultural benefits .</p>
<b>Actions/recommendations for catchment group to facilitate</b>	Contribute local knowledge to any funding application.