



## **Chapman Lake Water Supply Expansion Project FAQ's**

### **Q. What supply options are being considered in addition to the lake channel lowering option?**

A. The Comprehensive Regional Water Plan (CRWP) assessed three options to address short term water supply needs: 1) Raw water reservoir, 2) Accessing lower reaches of Chapman Lake, and 3) Groundwater Investigation. Land for the raw water reservoir option is not available in the short term, therefore, Option 2 was selected based on least environmental impact.

### **Q. Why not diversify water supply by utilizing more water sources rather than placing "all our eggs in one basket"?**

A. The SCR D operates nine water systems throughout the Sunshine Coast that draw from 15 separate water sources. For the Chapman system, the CRWP also investigated all reasonably accessible water supply sources, including all larger creeks, Sakinaw Lake, Clowhom Lake, Rainy River and groundwater. The 20 year life-cycle cost estimates to develop a new water source(s) ranged from \$16 million for groundwater to \$123 million for Clowhom (\$2007). The SCR D is currently carrying out a groundwater supply investigation. The environmental impact of developing new water sources also require significant consideration.

### **Q. Why not operate the emergency siphon as needed for short term supply until the Engineered Lake long term solution is constructed?**

A. A siphon is considerably less reliable than the proposed gravity fed Chapman Lake supply system and needs to be staffed continuously during operation to ensure the siphon can be re-primed if the siphon is broken. Land acquisition for the raw water reservoir is anticipated to take several years. A siphon is suitable for emergency purposes but not for longer term operation.

### **Q. Why is the SCR D relying on a lake for water supply when it is in a Class A Provincial Park?**

A. Chapman Lake was recognized as the only viable long term water supply that offers "sufficient water quality, quantity and timing of flows for a regionally scaled water supply along the Sunshine Coast." (BC Parks Tetrahedron Park Management Plan p.8). The Chapman Lake water supply system preceded the establishment of the Provincial Park, and the Tetrahedron Park Management Plan (January 1997) recognizes that "these watersheds are the future sources for growth along the Sunshine Coast ..." The Park Management Plan further states that "Government, upon park designation, made a commitment to allow for continued management and enhancement of the Chapman/Gray Creek watersheds as future community water supply sources for the Sunshine Coast residents."

**Q. Will lowering Chapman Lake an additional five metres harm fish and the ecological integrity of the surrounding park land?**

A. An Environmental Assessment based on an additional five metre drawdown (eight metres total) was carried out in 1999 and concluded that the seasonal lake drawdown would be acceptable and any impacts would be largely mitigable. The project will also enhance downstream fish values. The SCRD approved an additional \$125,425 for environmental field work to further assess the ecological impacts. The field work was completed in 2016 and confirms the earlier findings.

**Q. Will the lake banks slough like what happened at the Tyson Lake power project?**

A. The geology of Chapman Lake is very different than Tyson Lake. Chapman does not have any loose glacial deposits and consists of relatively gentle bedrock slopes overlain by organic sediments, which are quite stable based on historic experience. The risk of sedimentation of the water is considered very low and will be further assessed during the final environmental assessment work.

**Q. What are the environmental and social impacts reviewed in the environmental assessment report?**

A. Two studies have now been completed to assess impacts to Chapman Lake associated with increasing the draw down during drought conditions: (1) Whitehead Environmental Ltd. In 1999, and (2) AECOM in 2016 (based on a week-long field study in August 2016). Both studies considered project effects on: fish, fish habitat, water quality, terrestrial resources around the lake, and park users. The report provided an assessment of the impacts to Chapman Lake. Based on the previous and current findings it is expected that the long term impacts of increased draw down in Chapman Lake can be mitigated and are insignificant compared to the social benefits of a more sustainable drinking water source for the residents on the Sunshine Coast.

**Q. Will the channel lowering construction work itself cause environmental harm?**

A. The construction work is also part of the environmental assessment study required by the Province. The 2016 environmental study considered the construction activities required to install the low level water release. All of the works and camp can be contained within the land previously disturbed during the initial construction of the existing dam and channel. No undisturbed land will be altered or impacted.

**Q. What does the \$5 million project borrowing include?**

A. The project costs are estimated as follows:

<b>Item Description</b>	<b>Estimated Cost</b>
Project Management, design, consultation, environmental assessment, regulatory approval, construction management	\$627,000
Construction	\$4,225,000
<b>Total Estimated Cost</b>	<b>\$4,852,000</b>

**Q. Why not provide incentives for residents to develop their own rainwater harvesting cisterns?**

A. Every drop counts and rainwater harvesting can help. The SCR D is developing water conservation incentive programs, including rainwater harvesting options.

**Q. How can I provide my comments to the SCR D?**

A. Members of the community are encouraged to provide their comments, concerns or questions by emailing [info@scrd.ca](mailto:info@scrd.ca) or by completing the online feedback form found here: [www.scrd.ca/Feedback-Form](http://www.scrd.ca/Feedback-Form).