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Agenda Item #7  
REPORT #RWSC 2008 - 21

**REPORT TO REGIONAL WATER SUPPLY COMMISSION  
MEETING OF WEDNESDAY, 15 OCTOBER 2008**

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**SUBJECT** AMERICAN BULLFROG ERADICATION PROGRAM – 2008 REPORT

**PURPOSE**

To provide an update on the American bullfrog eradication program being undertaken by Mr. Stan Orchard in 2008, bullfrog monitoring and control activities conducted by Capital Regional District (CRD) Water Services staff, and present key results of a workshop held to discuss how to improve the management of bullfrogs to prevent their establishment in the Greater Victoria Water Supply Area.

**BACKGROUND**

The American bullfrog (*Rana catesbeiana*), an invasive non-native species, is expanding its range on southeastern Vancouver Island. Bullfrogs are moving through water bodies in the City of Langford toward the Greater Victoria Water Supply Area and adjacent Sooke Hills Wilderness Regional Park. Although medical health experts and ecologists consulted by Water Services in 2004 did not believe bullfrogs would impact water quality, they recommended bullfrogs be kept out of the water supply area as a precaution.

Since 2005, Water Services, Regional Parks and the District of Langford have funded Mr. Stan Orchard, a registered professional biologist, in his attempt to eradicate American bullfrogs from a designated control corridor (Attachment 1). In 2006, Mr. Orchard captured 446 bullfrogs from 5 water bodies in the control corridor. In 2007 Mr. Orchard visited 11 water bodies in the control corridor capturing 4,136 bullfrogs.

In 2008 to date a total of 2,763 bullfrogs were removed from the corridor. The timing, location, and effort in eradication efforts in 2008 were very comparable to 2007. The most notable successes in 2008 were the reduction in the number of bullfrogs reaching Humpback Reservoir in Sooke Hills Wilderness Regional Park (from 23 in 2007 to 3 to date in 2008) and the elimination of bullfrogs from small water bodies in the portion of the control corridor nearest the park by September.

Watershed Protection staff monitored water bodies within the Water Supply Area and Sooke Hills Wilderness Regional Park for American bullfrogs throughout the 2008 field season. Bullfrogs were only detected in Humpback Reservoir and all frogs found were removed with the assistance of Mr. Orchard. Staff also surveyed Shawnigan Lake and other water bodies on lands near the Water Supply Area in cooperation with Mr. Orchard and consultants to determine if bullfrogs were present. No bullfrogs were detected.

In June Water Services staff assembled a group of people with expertise in the ecology and management of American bullfrogs and the management of invasive animal species to discuss how to improve efforts to prevent bullfrogs from invading the Water Supply Area. Three key messages emerged:

1. As long as populations of American bullfrogs outside the control corridor continue to expand, there will be an ongoing need for eradication efforts within the corridor to prevent bullfrogs from invading the Water Supply Area.
2. Given the likelihood that a long-term funding commitment is required to prevent bullfrogs from invading the Water Supply Area, Water Services should conduct a more comprehensive review to determine the threat(s) that bullfrogs may pose to water quality. Then funding on bullfrog management can be weighed against funding levels to address other threats to water quality.
3. Bullfrog eradication efforts in water bodies in the control corridor should be focused first on those that are closest to the Water Supply Area and then work back toward the more established populations.

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**DISCUSSION**

Mr. Orchard's work to eradicate American bullfrogs within the control corridor has greatly reduced the population and dispersal of bullfrogs in this corridor. This outcome benefits Water Services by reducing the potential for bullfrogs to reach the Water Supply Area. It will be important to follow up the success in 2007 and 2008 with the same or increased effort in monitoring and control within the corridor in 2009.

As a follow up to the bullfrog management workshop, Water Services has received a proposal from the Centre for Coastal Health to conduct a comprehensive review of the threat(s) that bullfrogs may pose to water quality and the ecology of water supply reservoirs. This review will begin in the fall of 2008 and be complete in early 2009.

**ALTERNATIVES**

No alternative is presented. The results of the review on the threat(s) bullfrogs pose to water quality and the ecology of water supply reservoirs will be used to develop alternatives for the 2010 budget

**FINANCIAL IMPLICATIONS**

The review of the threat(s) that American bullfrogs may pose to drinking water quality and the ecology of drinking water supply reservoirs is being undertaken using funds from the 2008 Watershed Protection budget.

A grant of \$20,000 to fund the work of Mr. Orchard in the control corridor in 2009 has been included as a single supplementary in the 2009 budget. A contribution of \$20,000 will be adequate if matching funds are obtained from Regional Parks and \$10,000 is made available to the eradication project again by the District of Langford in 2009.

**RECOMMENDATION**

That the Regional Water Supply Commission receive this staff report for information.

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