



Engineering & Public Works
Staff Report to Council

DATE: September 8, 2015
TO: Mayor and Council
FROM: Tracy Kyle, Director of Engineering and Public Works
SUBJECT: Return to Stage Two Water Restrictions
ATTACHMENTS: Appendix A - Dickson Lake Level (2015)

RECOMMENDATION:

This report is to provide information to council regarding the return to Stage Two Water Restrictions.

PURPOSE:

Under the authority of Water Bylaw 2196-1990, the Engineer rescinded the order issued July 3, 2015 to implement Stage Three Water Restrictions and returned to Stage Two Water Restrictions for properties serviced by the District of Mission water system effective September 4, 2015.

BACKGROUND:

Stage Three Water Restrictions are authorized when either the Dickson Lake Drought Management Plan Criteria is not met or if the Maclure Reservoir recharge fails to achieve the level of 3.75 meters by 5:00 a.m. on two consecutive days. The decision to activate Stage Three Water Restrictions is made when the level of Dickson Lake falls within the orange band shown on the graphic in Attachment "A". Due to the hot, dry weather and lack of snowpack this year, Dickson Lake level entered Stage Three of the Water Shortage Response Plan on June 25, 2015 and Stage Three Water Restrictions, which prohibits lawn sprinkling, was implemented on July 3, 2015.

DISCUSSION AND ANALYSIS:

As a result of the substantial rainfall from August 28, 2015 to September 2, 2015 totaling over 340 millimetres, staff have minimal to no concern with the complete refilling of Dickson Lake during the upcoming winter. Dickson Lake was recharged by 30% in less than a week, with the lake level rising by almost two metres. Therefore, the order to implement Stage Three Water Restrictions was rescinded September 4, 2015. Stage Two Water Restrictions, which permits lawn sprinkling two mornings a week, will remain in effect until September 30, 2015. Stage Two was extended this year from May 1, 2015 through September 30, 2015, due to the low snow pack.

Stage Three Water Restrictions were effective in reducing demand. Peak day demand for the regional water system this summer was 106 megalitres per day (MLD). It is higher than last year, which was 99 MLD but less than the 2006 to 2009 peak demands that ranged from 117 to 137 MLD. The regional water system average day demand over the last year has increased slightly to 68.5 MLD, compared to last year at 66.3 MLD; however, it is still lower than average day demands that occurred from 2006 to 2009, which ranged from 72.9 to 77.8 MLD.

The Weather Network's winter forecast predicts normal precipitation, but fewer strong intensity events. The predicted warmer than normal temperatures may mean more precipitation as rain instead of snow, which could result in a low snowpack again. Staff will be reviewing the current Water Shortage Response Plan over the fall and will be asking for public input through a survey. Recommendations will be made to Council on which activities should be restricted at each stage. Based on the snowpack this winter, watering restrictions in 2016 may need to be implemented early again.

FINANCIAL IMPLICATIONS:

There are no financial implications of this report.

COMMUNICATION:

Social media, the District website and newspapers will be used to communicate the change back to Stage Two Water Restrictions.

SUMMARY:

Dickson Lake level has risen significantly and there are no concerns about it refilling over the winter due to the significant amount of rainfall received from August 28 to September 2, 2015. Under the authority of the Water Bylaw 2196-1990, the Engineer rescinded the order issued July 3, 2015 to implement Stage Three Water Restrictions and returned to Stage Two Water Restrictions effective September 4, 2015 for properties serviced by the District of Mission water system.

SIGN-OFFS:

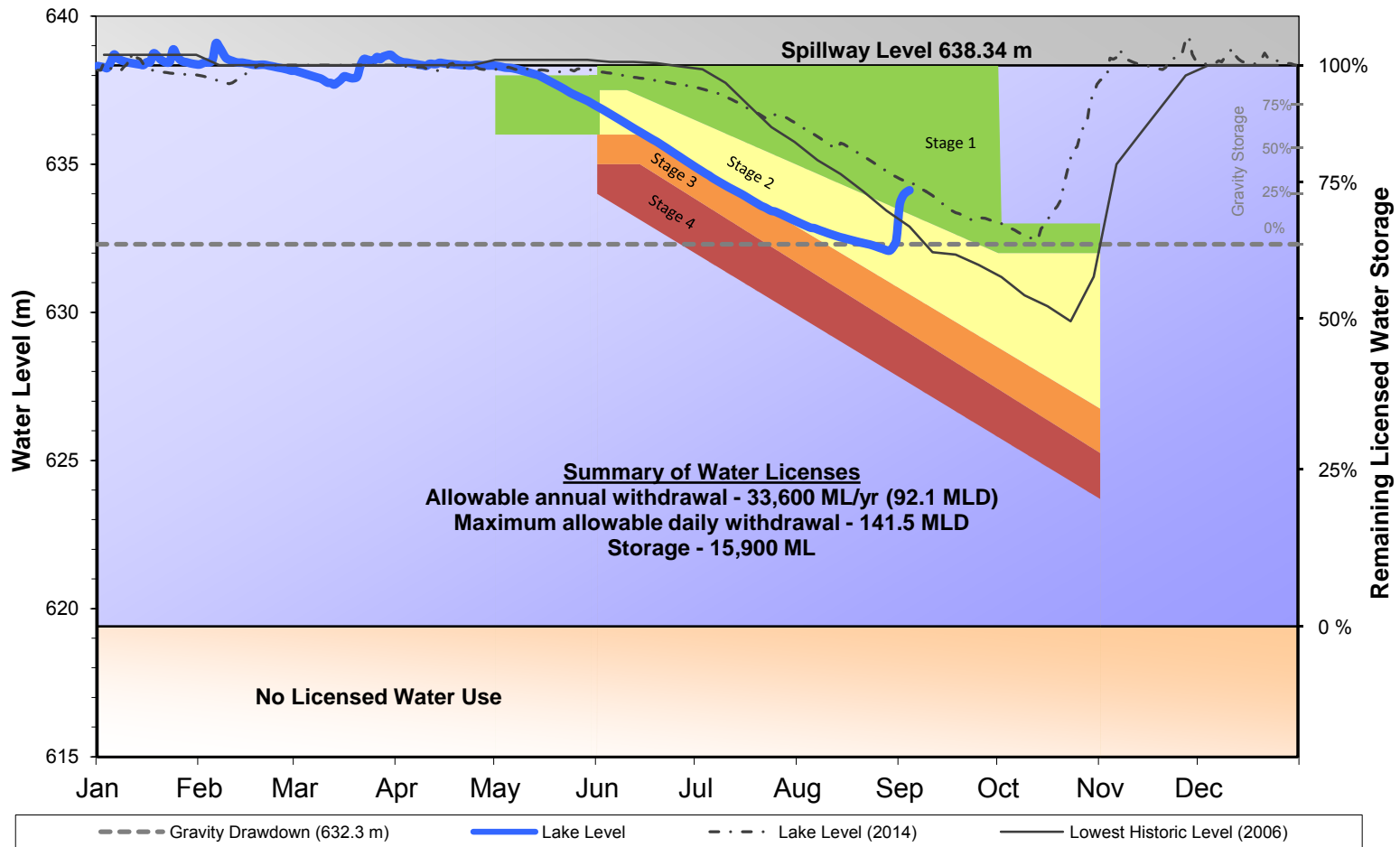
A handwritten signature in black ink, appearing to read "Tracy Kyle", is written over a light gray rectangular background.

Tracy Kyle, Director of Engineering & Public Works

Comment from Chief Administrative Officer:

Reviewed

Late Item 7(b) - Regular Council Agenda - September 8, 2015
Appendix A



Gravity discharge from the lake is only available when the lake level is above an elevation of 632.3 m. The significance of the 'Gravity Drawdown' elevation is that pumping from the lake may be required at certain times of the year, to ensure sufficient flow in Norrish Creek downstream. While a significant amount of the licensed storage volume is below the 'Gravity Drawdown' elevation, pumping of this water would require ongoing operation of pumps, a generator, and re-fueling of the system. Relative to releasing the water by gravity, pumping results in an increased risk and cost for the discharge of water from Dickson Lake. Stages 1 through 4 refer to the AMWSC Water Shortage Response Plan, which outlines watering restrictions and allowable usage based on the status of the water supply system.