

REPORT TO COUNCIL



Date: January 4, 2012
File: 1350-90
To: City Manager
From: Transportation & Mobility Manager
Subject: McKinley Road Safety Improvements(SR214381)

Recommendation:

THAT Council receives, for information, the report from the Transportation & Mobility Manager dated January 4, 2012, with respect to McKinley Road Safety Improvements.

Purpose:

To respond to Service Request 214381 arising from the Council Resolution dated December 13, 2011.

“COUNCIL RESOLUTION FROM THE DECEMBER 13, 2011 REGULAR MEETING:
THAT Council directs staff to provide an update, for consideration at the January 9, 2012 P.M.
Regular Meeting, with respect to the road improvements being contemplated for McKinley Road”.

Related Service Request 214303, from citizen requesting barriers be installed.

Background:

There are currently no road improvements included in the proposed 2012 Capital Plan or in the 2012 Operational Plan for McKinley Road. Figure 1 shows the segment of McKinley Road adjacent to the GEID water reservoir that is the focus of this report.

History dates back almost two decades regarding potential safety improvements along McKinley Road adjacent to the GEID water reservoir. Barrier requests were considered in 1996 by GEID to reduce the risk of water contamination of an errant vehicle entering the reservoir. It was recognized that the lack of road shoulder width would require rock blasting to accommodate barriers. At that time, MoTH was still providing maintenance in accordance with the 1973 amalgamation agreement. Road maintenance became a City responsibility in the late 1990's/early 2000's.

Collision History

From 1996-2008 there were no fatalities recorded by ICBC, nor any vehicles observed to enter the reservoir as a result of an incident. Since 2008, there have been three incidents where a vehicle left the road and entered the reservoir, the most recent in December 2011, resulting in a fatality. In all three recent incidents, it was reported by the RCMP that “human error” was a major factor/cause for the collision.

Previous Recommendations

Two previous recommendations for the area are on record, the first a ‘stop gap’ road safety improvement, and the second an ultimate realignment as part of the Kinnikinnik development.

Following the collision that occurred in 2009, the City of Kelowna commissioned a preliminary design for ‘stop gap’ road safety improvements for the road segment under discussion, completed by Focus

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Engineering in January 2010. The recommended approach included blasting and removing some rock face on the south side of the roadway to allow for widening of the corridor, permitting installation of concrete barriers on the north side of the carriageway. The Focus design did not examine the geotechnical aspects of the proposed design and geotechnical studies are therefore required to assess rock stability and rock cut slopes achievable for this design.

In August 2010, a meeting with City staff and GEID was held in an effort to clarify timelines for various works affecting the alignment of McKinley Road near the reservoir. Among the improvements considered were those recommended in the Focus report and improvements to sanitary and roadworks required by the proposed nearby Kinnikinnik development. The priority of works was set to minimize disruption, with construction of roadside barriers to be synchronized with sanitary and roadworks for the Kinnikinnik development. In December 2010, a decision was made that if development-related works did not proceed in 2011, the City should proceed with implementing the recommendations of the Focus report. The development did not move forward in the first half of 2011 therefore the Focus recommendations were considered as an item in the 2012 budget planning process. Compared against other priorities, the improvements did not rank high enough to be included as Priority 1 or 2 projects recommended to Council within the 2012 Capital Program.

The ultimate long term recommendation is to realign McKinley Road away from the reservoir, per attached Figure 2. This is to be done as part of the Kinnikinnik development conditions of approval, and is timed to occur with development.

Recent Observations

McKinley Road currently has signage informing drivers to slow down around the curves and to use caution along the roadway, as shown in Figure 3. Civic Operations staff completed an assessment in late December 2011 for three curves along McKinley Road. The study confirmed that the two curves to the west are appropriately signed at 30km/h advisory and the third easterly curve does not suggest an advisory speed is required as it can be driven at 50km/h in both directions.

Alternatives

Figure 4 shows proposed signage modifications that City staff will implement immediately. They include the addition of another speed advisory curve, and chevrons along the inside curve which will further reinforce the need to drive the road appropriately.

Considering the accident history, it becomes evident that the root cause of the 'human error'-caused collisions since 2008 are due to drivers "over-driving" the road (i.e. not driving to conditions or not respecting appropriate warning signage). Given the conditions for this segment of McKinley Road, the best engineering modifications (other than signage or larger-scale realignments) one can make are those to minimize the amount of risk for serious injury/fatality if drivers err while travelling the roadway.

In this light, City of Kelowna staff began exploring other alternative solutions to improving McKinley Road. One such alternative is to fill in the reservoir on the north side of the curve, opposed to blasting rock face on the south side, to add enough surface area for road shoulders to accommodate the barriers, as shown schematically in Figure 5. This option was only recently granted by GEID. In addition to preliminary engineering, a geotechnical study and permit application would also need to be done to determine the viability/feasibility of this potential.

Internal Circulation:

General Manager, Community Services
General Manager, Community Sustainability
Director, Infrastructure Planning
Director, Civic Operations
Manager, Development Engineering
Manager, Road, Drainage & Solid Waste Projects
Traffic Supervisor, Transportation Services
Traffic Technician, Transportation Services
Engineering Traffic Technician, Infrastructure Planning

Financial/Budgetary Considerations:

- Signage Modifications: Can be completed as part of the normal Traffic Operations budget.
- Preliminary Engineering Design: To Be Determined at 2012 Provisional Budget Deliberation
- Improvements Suggested by 2010 Focus Report: Approx. \$300,000
- Ultimate McKinley Realignment: At the cost of Kinnikinnik development.

Alternate Recommendation:

THAT Council receives, for information, the Report from the Transportation & Mobility Manager dated January 4, 2012, with respect to McKinley Road safety improvements,

AND THAT Council directs staff to report back to Council during the 2012 Budget Deliberations with a "walk-in" budget submission for consideration in the 2012 Provisional budget for updating Preliminary Engineering Design of potential improvement options,

AND FURTHER THAT Council directs staff to report back to Council with the results of the Preliminary Engineering Design Report prior to considering the 2012 Final Budget.

Considerations not applicable to this report:

Legal/Statutory Authority
Legal/Statutory Procedural Requirements
Existing Policy
External Agency/Public Comments
Communications Comments
Personnel Implications

Submitted by:



P. A. Truch, Transportation & Mobility Manager

Approved for inclusion:



R. Cleveland, Director Infrastructure Planning

Attachments: Figure 1
Figure 2
Figure 3
Figure 4
Figure 5

cc: General Manager, Community Services
General Manager, Community Sustainability
Director, Infrastructure Planning
Director, Civic Operations
Manager, Development Engineering
Manager, Road, Drainage & Solid Waste Projects
Traffic Supervisor, Transportation Services
Traffic Technician, Transportation Services
Engineering Traffic Technician, Infrastructure Planning



Figure 1

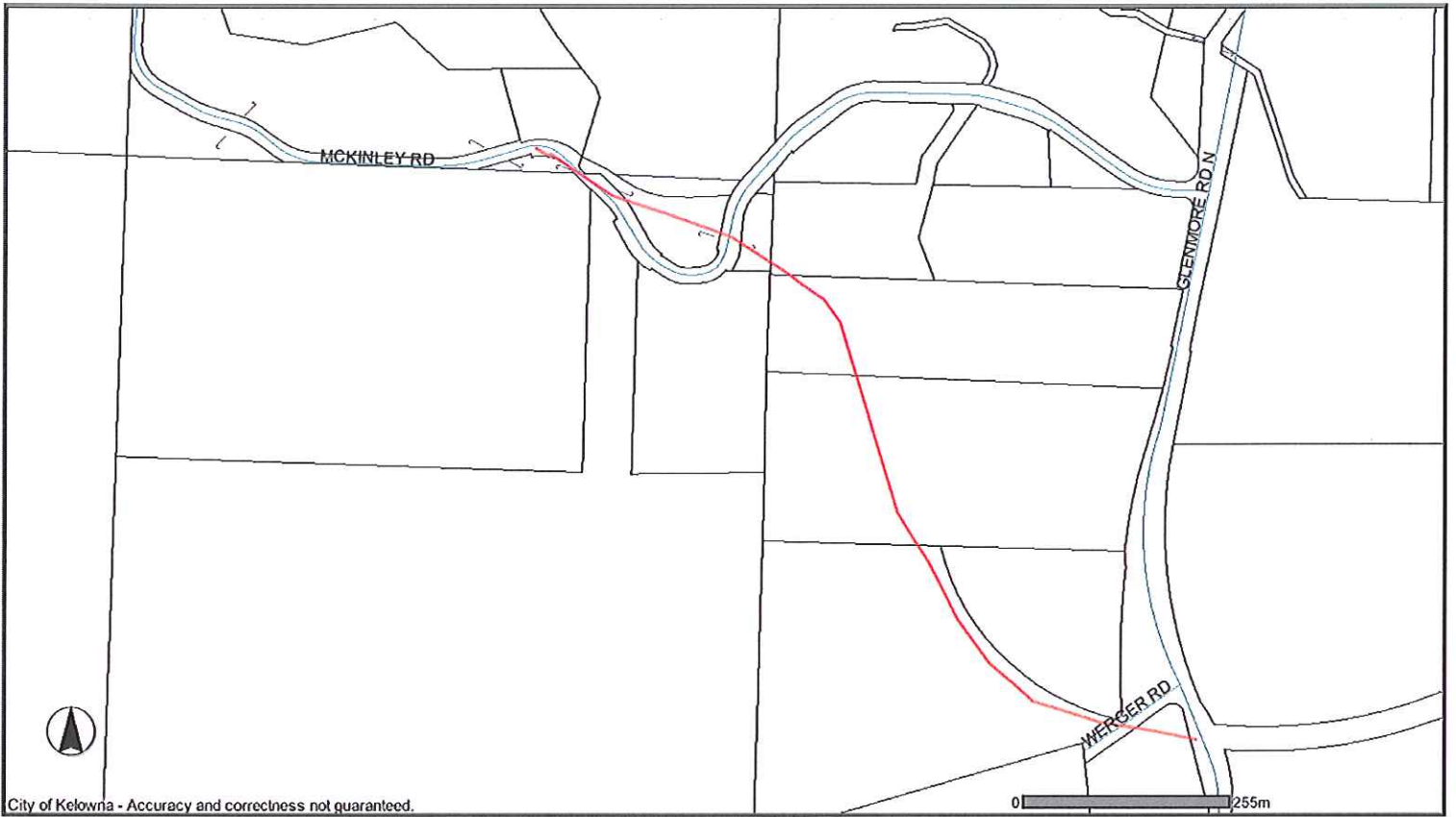


Figure 2

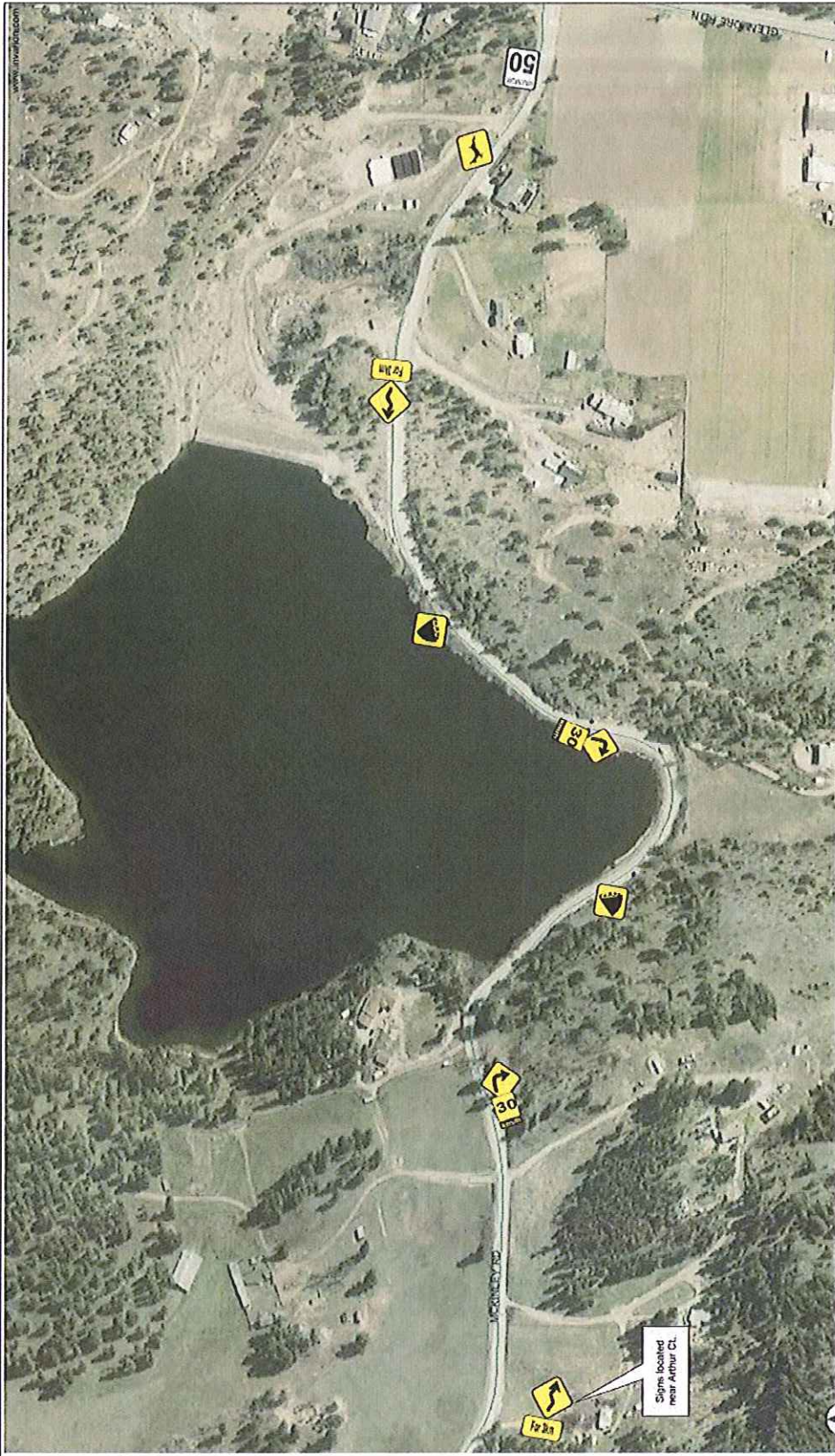


Figure 3

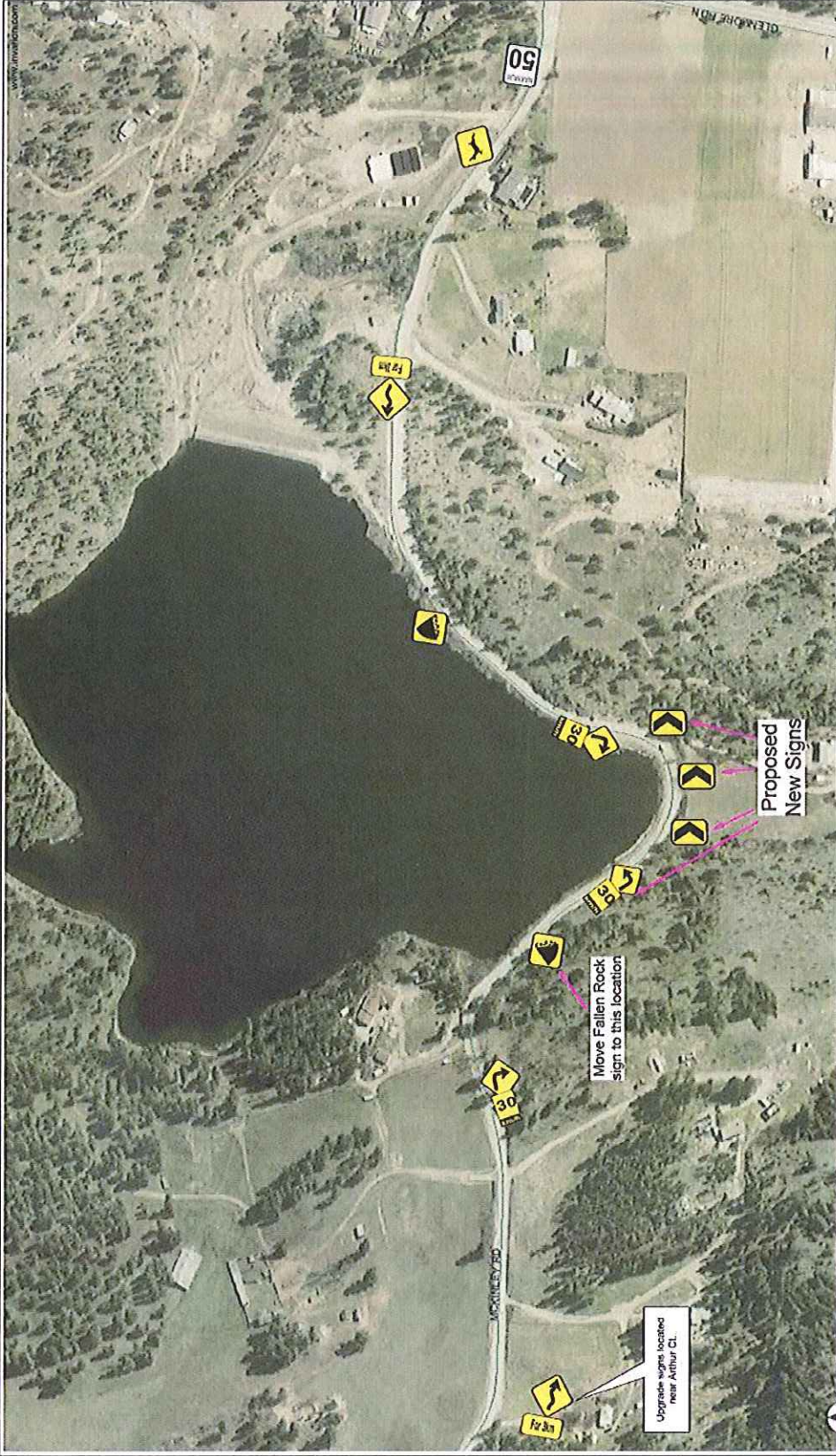


Figure 4

City of Kelowna



This map is for general information only. The City of Kelowna does not guarantee its accuracy. All information should be verified.

Figure 5