



## **CAPITAL PROJECT MANAGEMENT**

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<b>TO:</b>	Council	
<b>DATE:</b>	March 9, 2021	<b>DIVISION:</b> 8
<b>FILE:</b>	5000-375	<b>APPLICATION:</b> N/A
<b>SUBJECT:</b>	Bears paw Drainage Projects – Meadow Drive and Burma/Range Road 25	

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### **EXECUTIVE SUMMARY:**

Administration wishes to provide Council with an update on the Bears paw Meadow Drive Drainage project and the Bears paw Burma/Range Road 25 project, both of which were funded by Council in the 2021 budget. This report includes background information on the various steps taken to provide stormwater solutions in the area and an update on what Administration recommends as the most feasible solution to advance the two projects to construction.

### **ADMINISTRATION RECOMMENDATION:**

Administration recommends approval in accordance with Option #1.

### **BACKGROUND:**

The stormwater challenges in the community of Bears paw consist of residential areas that are adjacent to pot and kettle type wetlands. The area has limited overland escape routes which results in the accumulation of stormwater. During spring melt and heavy rain events, residents are overwhelmed with standing stormwater that impacts their homes and other areas of their properties. Seasonal pumping of water by County operations has historically dewatered the area, however this has come at a high cost to the County over the past several years.

As part of previous Council initiatives, the County investigated a gravity solution through private lands in the Meadow Drive area. The preliminary design provides landowners with an outlet that naturally flows east under Rocky Ridge Road to a West Nose Creek tributary within the City of Calgary. While this concept provides an outlet for the community, the proposed solution has many associated risks to the County, including likely delays due to downstream stakeholder engagement and endorsement which is needed for Alberta Environment and Parks (AEP) approvals. One of the critical downstream stakeholders, the City of Calgary, has demonstrated little support for the project. Based on these risks, the project's current form has a high chance of not being able to obtain the necessary approvals to advance the project to construction.

With this in mind, in January of 2021 Administration engaged ISL Engineering in partnership with Vertias Development Solutions to evaluate an alternative drainage concept for the Meadow Drive area. The Feasibility Study considers the possibility of using a lift station to mechanically convey stormwater north through the Harvey Hills area with an eventual outlet to a West Nose Creek tributary in Rocky View County. The Feasibility Study also evaluated the opportunity of combining the Bears paw Burma/Range Road 25 project with the Meadow Drive project, since the lands are within close vicinity and an outlet to the north makes combining the two projects viable.

The Feasibility Study outlines three high-level alignment options to combine the two projects, all of which maximize the use of County right of way:

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### **Administration Resources**

Angela Yurkowski, Capital Project Management





- **Concept A** - Conveys flows from Meadow Drive to a high point along Range Road 25 via a 250mm forcemain. From this point, a gravity line conveys flows north and discharges to a wetland south of Harvey Hills. See Attachment 'A' – Figure 4.1.
- **Concept B** - Conveys flows from Meadow Drive to a high point along Range Road 25 via a 250mm forcemain. From this point, a gravity line conveys flows and discharges further north directly to the West Nose Creek tributary. See Attachment 'A' – Figure 4.2.
- **Concept C** - Conveys flows from Meadow Drive north along Range Road 25 and then east along Burma Road via a 250mm forcemain. From this point, there is an outlet to an overland drainage ditch running north on Range Road 24. See Attachment 'A' – Figure 4.3.

Concepts A, B and C will require AEP approvals, however directing flows north will reduce the impacts to downstream stakeholders including the City of Calgary and significantly reduce the risk of delay for the project. Additionally, using a mechanical system to send water to the north allows for the Meadow Drive and Burma/Range Road 25 projects to be combined which is a more desirable solution for the County long-term.

For these reasons, Administration is recommending that the previous gravity solution be abandoned for the Meadow Drive area and one of the proposed Concepts A, B or C from the ISL Feasibility Study be advanced for detailed engineering and construction to accommodate both the Meadow Drive and Burma/Range Road 25 projects.

The final alignment (Concept A, B or C) will be selected based on detailed engineering and the landowner engagement process.

#### **BUDGET IMPLICATIONS:**

There are no budget implications anticipated.

Council previously approved \$5,000,000 for the Meadow Drive project and \$500,000 for the Burma/Range Road 25 project in the County's 2021 Capital Budget. The combination of the two projects will result in a total project budget of \$5,500,000.

#### **COMMUNICATIONS PLAN:** N/A

#### **OPTIONS:**

- Option #1: THAT the Bearspaw Drainage Projects – Meadow Drive and Burma/Range Road 25 report be received for information.
- Option #2: THAT alternative direction be provided.

Respectfully submitted,

Concurrence,

"Byron Riemann"

"Al Hoggan"

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Executive Director

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Chief Administrative Officer

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**ATTACHMENTS:**

ATTACHMENT 'A': Excerpts from the Meadow Drive Feasibility Study (ISL, 2021)  
    Concept A – Figure 4.1  
    Concept B – Figure 4.2  
    Concept C – Figure 4.3