

## Additional Information Requested

At the June 29, 2010, Transportation and Public Works Committee meeting, the following motion was passed:

- That the June 2, 2010, Transportation Department report 2010TD0789, be referred back to Administration to return to Transportation and Public Works Committee with further information including:
  1. Financial and developmental impacts and compensation associated with providing the 150 meter top of bank offset;
  2. Additional information on the environmental impacts and associated compensation and a list of the valued environmental components that were considered;
  3. A more detailed illustration of the arterial road configuration with ravines, wildlife corridors and pedestrian networks, both approved and proposed NSP's and connectivity of the trail system north and south of 137 Avenue accessing neighbourhoods and Lois Hole Provincial Park; and
  4. Options for City Council and Committee, in providing direction for land use for Big Lake Area Structure Plan.

## Response

### 1. Financial and Development Impacts and Compensation Pertaining to Top-of-Bank Offset:

- The recommended concept plan for 137 Avenue – 215 Street ensures a minimum top-of-bank offset of 100 metres at the pinch point at the northwest corner of Big Lake Neighbourhood One; at other locations along the proposed corridor, the setback exceeds 100 metres.
- The Parks Branch of the Asset Management and Public Works Department, and Alberta Tourism, Parks and Recreation (Parks Division) have indicated they are satisfied with the 100 metres setback provided. Alberta Tourism, Parks and Recreation has indicated a setback of 150 to 200 metres would provide enhanced space for the park and other amenities, but 100 metres would be allowable.
- Portions of the realigned 137 Avenue may form the southern boundary of Lois Hole Provincial Park. Given that this portion of the ASP shows “natural maintenance lands” that would be confirmed through more detailed planning, this roadway alignment provides a level of clarity for Administration as to what lands need to be retained as parkland (Provincial or City).
- The alignment of 137 Avenue – 215 Street as shown in the 1991 Big Lake Area Structure Plan indicated a top-of-bank setback of approximately 85 metres. Due to proposed Lois Hole Centennial Provincial Park development and related infrastructure, in addition to the need to provide

sufficient wildlife passage, this setback was subsequently identified as being insufficient and was increased to 100 metres as shown in the proposed concept plan. The setback increase from 85 metres to 100 metres results in impacts to the approved Neighbourhood Structure Plan (NSP) for Big Lake Neighbourhood One, resulting in the need for an NSP amendment. Furthermore, an amendment to the Transportation Systems Bylaw will be required as a result of the modified 137 Avenue alignment. Both of these require a Statutory Public Hearing.

- The implications of an increase from a 100 metre to a 150 metre top-of-bank offset are similar to the recommended increase in offset from 85 metres to 100 metres as noted above. A further increase to 150 metres would have significantly greater impacts to the approved NSP for Big Lake Neighbourhood One. This would require further discussions with impacted Developers in addition to an NSP amendment and will likely increase the overall land purchase requirement for either the Province or the City.
- The environmental specialists involved with this study have indicated that provision of a 120 to 150 metre setback is not required because the slope at the top-of-bank can likely provide some escape cover for wildlife moving along the top-of-bank. This is contingent upon the removal of a slash pile (shrub and tree debris) that currently exists along the slope at the top-of-bank.
- Based on discussions with area developers, shifting the road alignment an additional 50 metres to achieve a 150 metre setback from top-of-bank would result in a reduction of approximately 2.44 hectares of developable land, resulting in a financial impact of approximately \$2.7 million to \$2.8 million. This figure is based on items including land costs, lost revenue/profit, neighbourhood redesign and engineering costs. Attachment 3 illustrates the area impacted by a shift in the road alignment to achieve a 150 metre setback from top-of-bank.

## **2. Environmental Considerations:**

- The proposed roadway was selected by taking into consideration the unique context of the Big Lake area and by giving significant weight to the surrounding natural environmental features. Furthermore, the proposed alignment is intended to provide a defined buffer between the developed areas to the south of 137 Avenue and the parkland to the north.
- The proposed alignment allows for wildlife passage (via a wildlife underpass) where high wildlife movement currently occurs and is expected in the future.
- The proposed plan for 137 Avenue – 215 Street incorporates crossing structures at all watercourses and incorporates a unique stormwater management system to reduce potential for sediment and pollutant contamination in Big Lake.

- The stormwater management system proposed for Big Lake includes the use of shallow vegetated ditches for all roadway legs with rural cross-sections to provide initial filtration of sediments and contaminants. All runoff would then be directed to stormwater ponds where it would pass through an oil/grit separator and then into a pond for additional settling. This step allows for removal of any additional sediments and hydrocarbons that may be present. The treated water would then be directed to a natural swale or an engineered ditch for discharge to Big Lake.
- The Environmental Assessment report completed by Spencer Environmental Management Services Ltd. identifies potential impacts to two natural resources that may involve compensation. Based on the proposed conceptual design, approximately 5.0 ha of functional wetland will be lost. This may require compensation in the form of constructed and/or restored wetland. The cost cannot accurately be estimated at this time given possible design changes, possible wetland policy changes and possible land values changes and an unidentified construction schedule. A conceptual level estimate is \$250,000 using today's rates for compensation in the form of wetland restoration by Ducks Unlimited Canada. It is possible but unlikely that a Crown-owned wetland would also be impacted. However, if this occurs, it may involve compensation, the form of which cannot be identified at this time.
- There may be a need to compensate for loss of trees and shrubs on currently owned City land, pursuant to the City's Corporate Tree Policy. It is too early to estimate the areas affected and the areas have not been valued by forestry. As a result, it is too early in the process to calculate a dollar value at this time. Furthermore, the City's Corporate Tree Policy may allow for inter-department negotiations to arrange for other forms of compensation, such as plantings.
- At this time, it appears that the project avoids affecting fish habitat. Based on the recommended concept plan, the project would not require compensation for lost fish habitat.
- The environmental assessment was completed in consideration of Valued Environmental Components (VEC's) identified to be most important within the context of the proposed roadway development. For this study, the VECs were selected based on several criteria including relative abundance or status, public concern, professional concern, economic importance, and regulatory concern.
- The VEC's considered in this planning study are:
  1. Valued Ecosystem Components:
    - Geology/Soils
    - Hydrology and Surface Water Quality
    - Vegetation
    - Wildlife
    - Fish
  2. Valued Socio-Economic Components

- Land Disposition and Zoning
- Outdoor Recreation
- Visual Resources
- 3. Valued Heritage Components
  - Historical Resources
- Attachment 4 shows the justification for the selection of each of the VECs.

### **3. More Detailed Illustration:**

- Attachments five through eight provide more detailed illustrations of the study area including the arterial road configuration, ravines, wildlife corridors, pedestrian networks and connectivity of trail system north and south of 137 avenue accessing neighbourhoods and Lois Hole Provincial Park.

### **4. Options for City Council and Committee in providing direction for land use for Big Lake Area Structure Plan (ASP):**

- Direction on land use for any developing area can be provided by Council or Committee of Council to Administration. In the case of the Big Lake Area Structure Plan, Administration is currently assessing the possibility of completing ASP and NSP Amendments.
- Administration recommends that the Big Lake ASP be brought to a future City Council Public Hearing with proposed amendments to include the recommended concept plan for 137 Avenue – 215 Street, and that the potential land uses for the areas adjacent to the roadway be identified and proposed into the adjacent Big Lake Neighbourhoods One and Two, where appropriate. Recommendation #2 provides adequate direction to Administration.