

Land Management Tools and Strategy

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How the Alberta government undertook a pilot project to develop land management tools and a land management strategy for lands associated with the Edmonton and Calgary transportation/utility corridors.

Introduction

In 1985, the Alberta Government Department of Public Works, Supply and Services, undertook a pilot project to develop land management tools and a land management strategy for lands associated with the Edmonton and Calgary transportation/utility corridors (TUC). Specifically, a prototype textual and graphics data base and a process to examine the program lands to identify constraints, land use potential, and management requirements were to be developed. This paper will briefly outline the unique Alberta TUC program and the strategy to evaluate and ultimately manage these lands, and, finally, will describe the computerized graphics/textual data base developed to facilitate land management.

Background

Alberta has created two transportation/utility corridors around the cities of Edmonton and Calgary. The TUC are approximately 0.8 km wide and are set aside land for a ring road eight-lane divided limited access freeway, buffers (30-m strips

adjacent to the road right of way), access (an 18-m strip set aside for service vehicle passage), future oil and gas pipelines, electric transmission lines, and municipal service rights of way (i.e., water lines, sewer lines). The TUC width is segmented into specific component areas that will eventually contain many individual facility rights of way, as shown in Figure 1.

In addition, secondary land uses such as parks, recreation, and storage are encouraged to use the land surface in order to better incorporate the TUC into the adjacent land use pattern.

The TUC were established through the Restricted Development Area (RDA) Regulation pursuant to the Alberta Department of the Environment Act. The RDA regulations are a form of zoning that grant the province the authority to control land use within the designated areas. The RDA regulations take precedence over all other provincial regulations and Acts and municipal bylaws. Any land use change or intensification requires the consent of the Minister of Environment. These regulations grant the Minister the power to maintain low density development on private lands in the TUC pending the construction of a corridor facility. The province is augmenting the land use control and alleviating landowner concerns by acquiring the lands for the Crown. Presently, approximately 75% of the Edmonton TUC and 65% of

the Calgary TUC lands have been acquired. The Department of Public Works, Supply and Services is responsible for all provincial government land purchases (except for Alberta Transportation) and is responsible for the management of selected Crown parcels. This department negotiates land purchases, leases Crown lands, grants easements, and undertakes all property management functions for the Crown-owned RDA parcels on behalf of Alberta Environment.

Issues

The RDA regulations hold the land for eventual Crown purchase and for the construction of TUC facilities. Many facilities will probably be built within a 25-year period. A few pipelines and powerlines have already been located in the TUC to date, and in Edmonton a portion of the ring road is to be constructed in the next few years. The fact that the TUC is not immediately used for its intended purpose has led to some concern over land sterilization or waste of a scarce resource. To address this concern, secondary land uses of the surface have been encouraged. However, this results in two management objectives: to implement primary use of the TUC, and to use the land surface.

An additional issue has been created as a result of the TUC/RDA boundary differences. The TUC plans, which allocate the land in the RDA to the various linear facilities, indicate that the entire RDA is not required for TUC purposes. The land in the RDA has been designated for the TUC primary uses (i.e., ring road, pipelines, powerlines, municipal services, buffers, and access) or has been deemed residual, unassigned, or surplus.

Residual lands are lands within the RDA that lie outside of the TUC and are not required for TUC purposes. Unassigned lands are lands within the RDA that are embedded between components in the TUC but are not required for TUC purposes. Generally, these parcels were created as a result of the design requirement, for example, to minimize deflections for powerlines and pipelines. An additional category of land related to the RDA/TUC program is surplus lands. These lands lie outside of the boundaries of the RDA but were acquired by the crown in order to facilitate the purchase of lands within the RDA. They are not required for TUC purposes.

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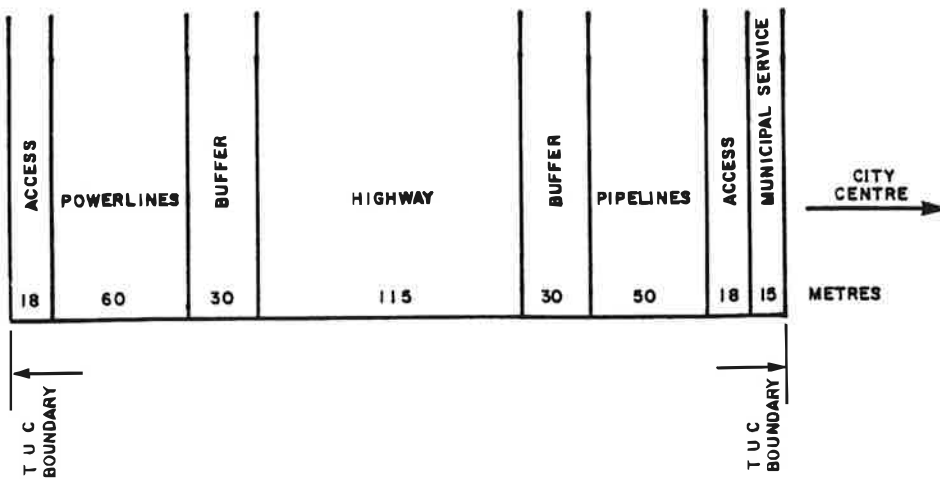


Figure 1. Edmonton transportation/utility corridor: typical cross-section.

This variety of land types has resulted in the need for a complex management strategy. The existence of land within the RDA not required for the TUC program raises the question whether the lands should be retained or released. The strategy developed assumes that the province will eventually retain only the TUC requirements. The management functions associated with these lands will include the ability to: (a) plan, operate, and maintain the TUC lands for the primary uses; (b) provide interim management of residual, unassigned, and surplus lands; (c) acquire TUC lands; (d) release/dispose of residual, unassigned, and surplus lands; (e) manage secondary land use on the surface of the TUC.

Land Management Strategy

The strategy analyzes each parcel of land and determines whether the parcels (or portions of the parcel) should be acquired, retained, or released. A number of interim management principles were developed to preserve the integrity of the TUC and the development potential of the non-TUC lands. In addition, a land disposal process for Crown-owned non-TUC lands was developed.

As shown in Figure 2, there are four stages to the strategy. In the first stage, every title area was assessed to determine the minimal land requirements of the parcel for TUC purposes or to identify non-TUC parcels or portions of parcels potentially subject to access or development constraints imposed by the TUC boundary, which must be retained or acquired by the Crown.

This process resulted in the identification of the land required for TUC purposes; the land not required for the TUC but con-

strained by access, or environmental, or development constraint and to be acquired and held by the Crown with the TUC land; and the land deemed non-TUC (i.e., no TUC requirements and no constraints). This information is valuable for the land acquisition and disposal process in that it clarified the lands that must be bought (i.e., TUC and constrained land) and which lands could be disposed of by the Crown.

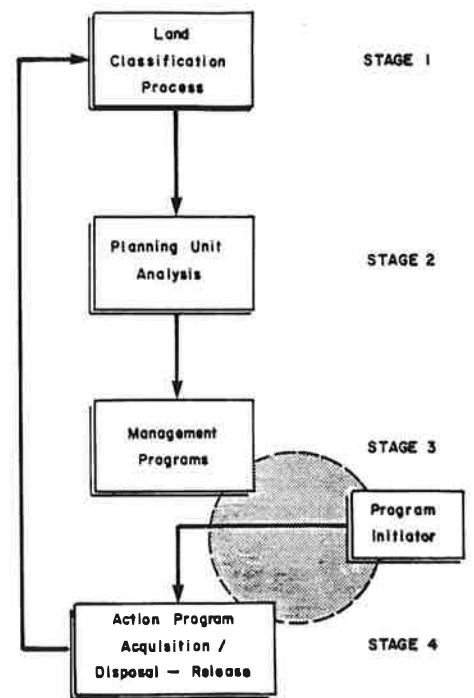


Figure 2. Land management strategy.

Stage II, Planning Unit Analysis, results in the identification of the probable future land use and development timing of the RDA lands. The ultimate land use outside



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