

## **Industrial Diversification and Development: An Industrial Ecology**

The new Manchester district will preserve and enhance 40-50,000 industrial and manufacturing jobs utilizing only a portion of the existing industrial footprint using more intensified models of industrial activity – multi-story facilities and more compact goods movement infrastructure.

Industrial activity in the district will be organized around the concept of an industrial ecology. The industrial ecology will produce zero waste. All excess materials and energy will be captured, recycled and reused. The waste from one enterprise will be utilized as the raw material for another in a closed loop system.

The ecosystem will encompass the district's residential and retail/commercial waste and energy streams. Water, materials and energy will circulate and cascade through the entire district via the district energy and solid and liquid waste systems.

Industrial activity will be managed through a district logistics and management facility. Its role will be to create the industrial ecology, identifying and exploiting synergies between existing enterprises and recruiting new enterprises to the district that add value to and fill available niches in the industrial ecology. It will also manage energy provision and material flow logistics between enterprises and into and out of the district.

A management and logistics terminal will be located at the east-central boundary of the district along Blackfoot Trail. The terminal will receive material via rail or truck and move it through the district via a material movement system utilizing the streetcar grid, conveyors, elevators, electric powered small trucks, light-weight airport-like materials handling and 2 to 4 wheeled human powered vehicles.

The district will be supported by a centrally-located research and development facility. The facility will be a joint venture between the municipality, industry, U of C, MRU, SAIT and Bow Valley College. The centre will be mandated to support research and development pertaining to the particular needs of the Manchester District – green buildings, urban design, renewable energy, industrial ecology, land remediation, industrial economic diversification, sustainable transportation, water and waste management.

Two features of the district's industrial activity will be anchor tenants and industrial tourism. The Management facility will recruit anchor tenants for the district. An anchor tenant is a significant industrial/manufacturing enterprise focusing on sustainable and localizing industrial activity. Over time the districts ecology will be built around these anchor tenants.

The facility will also develop as a centre of teaching and learning. The Manchester district R and D facility will allow the integration of post-secondary teaching and learning and serve as a site for industrial tourism – interpreting and showcasing the green industries, technologies and urban designs integrated into this working urban socio-industrial landscape.