



Hardy willow crops grown in marginal agricultural soils flourish in a variety of growing conditions.

WILLOW BIOMASS CROP

Client: City of Calgary

SYLVIS and The City of Calgary launched the Demonstration Program in 2013: demonstrating the capacity of dewatered biosolids to improve the quality and fertility of marginal soils in the region. One of the main opportunities in this endeavour has been the establishment of three, even-aged willow stands where biosolids application, harvest, and growth (or planting) are occurring annually on multiple sections of land. Through the use of the willow biomass system, organic matter and soil nutrition are improved over time through subsequent biosolids applications and litterfall accumulation, and the harvest of the willow biomass yields a product for the management of municipal organic residues or as a marketable product.

Since the beginning of the Calgary Biosolids Demonstration Program in 2013, over 4.6 million willows have been planted on over 300 hectares of land. In the spring of 2016, the first crop of willows will be harvested and chipped using a purpose built, single-pass harvester. The woody biomass collected from the willow harvest in turn will act as feedstock for a variety of potential City of Calgary initiatives, including: composting municipal organics, erosion control, mulch for City pathways, or as a renewable, biomass fuel.

SYLVIS has expert knowledge in utilizing willow biomass crops, combined with residuals applications, to build sustainable economic and environmental synergies for residuals management. Through the production of willow crops grown on land amended with biosolids, SYLVIS has demonstrated the ability for our clients to diversify the beneficial use of residuals and improve environmental, social and economic outcomes. SYLVIS is a leader in innovatively and sustainably managing residuals as resource in Alberta, and look forward to continuing to find value added solutions for our clients.

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