

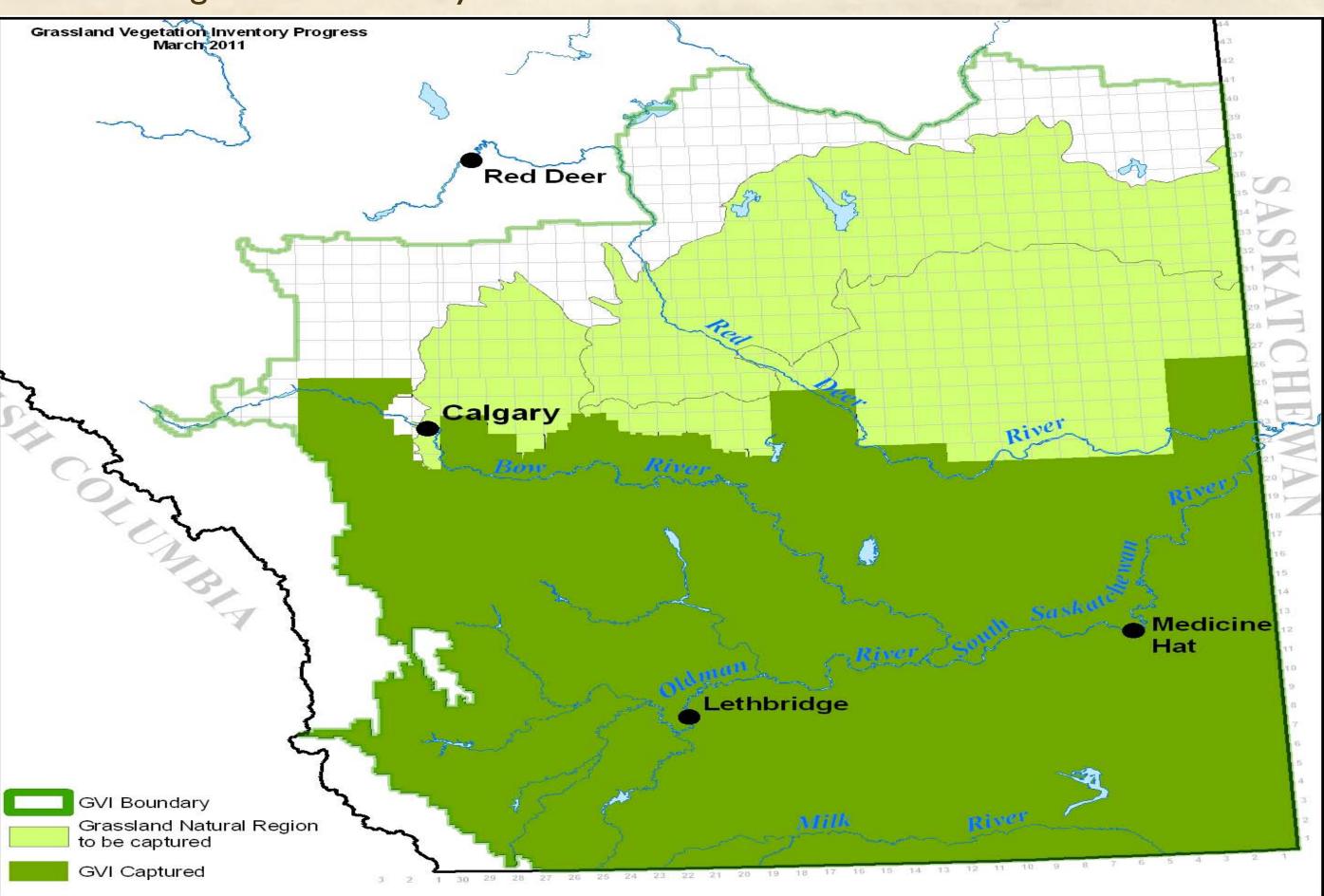
# What is the Grassland Vegetation Inventory (GVI)?

# Government of Alberta

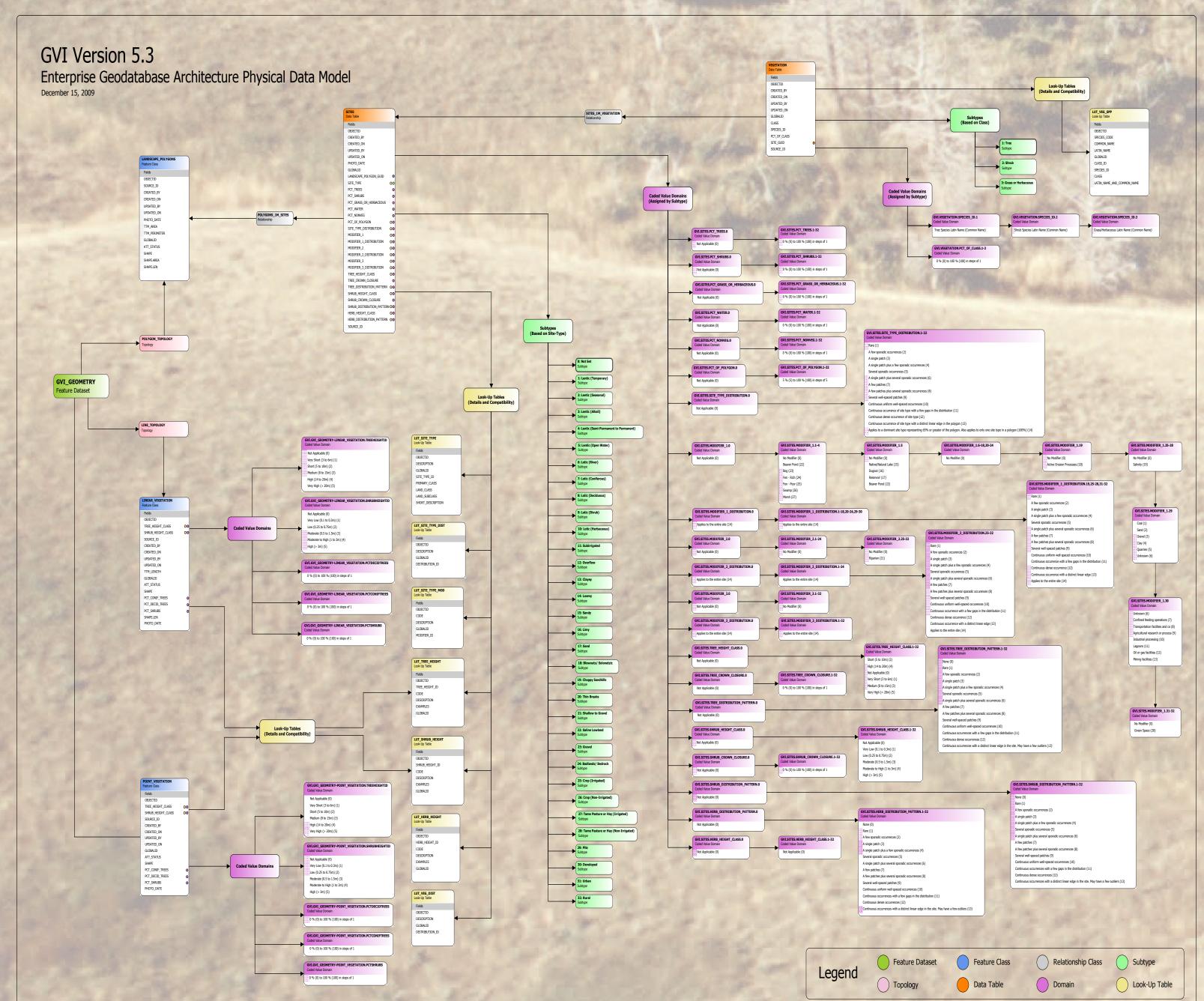
## The Grasslands Vegetation Inventory

The GVI represents the Government of Alberta's comprehensive biophysical, anthropogenic, and land-use inventory of the province's grassland natural region. Information for the GVI project will be collected for the entire area regardless of jurisdicion including the foothills grasslands (water bodies, native or natural areas, and agricultural, urban and other anthropogenic areas). This existing quarter section Native Prairie Vegetation Inventory (NPVI) did not adequately address current business needs, and it was difficult to implement policies, guidelines and practices to mitigate development in the current state. The Grassland Vegetation Inventory provides the underlying fabric necessary for provincial & federal governments, industry and NGOs to manage environmental resources. The GVI is a more comprehensive and detailed geospatial product when compared to the original NPVI, completed circa 1993.

#### Grassland Vegetation Inventory to 2011

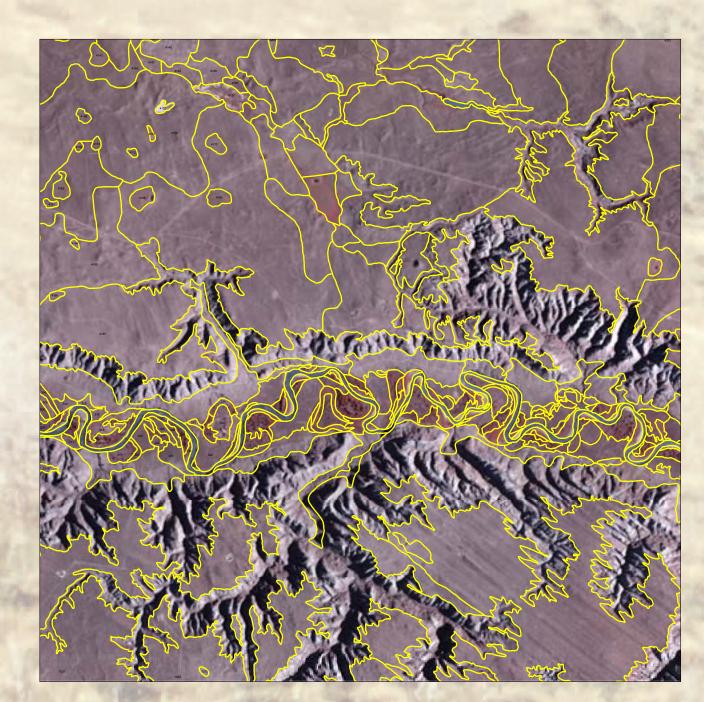


GVI Geodatabase Architecture

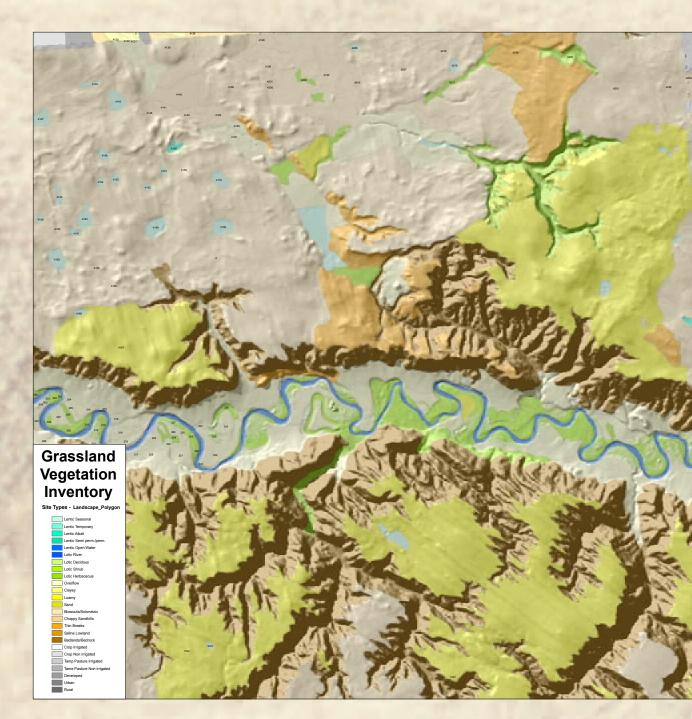




Source Imagery: Colour Infrared, 0.5m digital stereo



Source Imagery with GVI polygons overlayed on landscape



ArcGIS themed GVI

## References

Grassland Vegetation Inventory (GVI) Specifications,

Alberta Sustainable Resource Development, Government of Alberta 5th Edition June 29, 2010. revised July 13, 2010.

How is the GVI data captured? The compilation of GVI commenced in 2006 by Alberta Sustainable Resource Development. It is accomplished by photo-interpretation, using colour infrared digital stereo models. This allows for a 3D view of the landscape and proper polygon delineation. Resolution of the imagery being used is 0.5 metres, allowing for very precise line placement and interpretation of the ground. Minimum polygon sizes are 5.0 ha for upland site types and 1.0 ha for wetland site types.

GVI data is digitally captured on screen as polygons, lines and points then attributed using standard forms and drop-down menus (GVI Tools). The geodatabase created provides information on a number of different landscape features. These features (or Sites) are described by their Site Type.

Some Site Types may by further described using site-type modifiers. Ground cover characteristics are described in general by tree, shrub, herbaceous percent cover, height, and distribution pattern. Bare ground and water are also given percent cover calls if present. The geodatabase allows for specific entries regarding speciestype and the percent cover of a species within a Site. Line and point vegetation layers have been introduced to delineate landscape features such as shelterbelts and solitary trees. The GVI Schema includes a provision for adding additional information collected during field surveys.

#### Conclusions

The GVI is intended to meet the multitude of business needs integral to land-use planning and management in Alberta. It represents the Government of Alberta's comprehensive biophysical vegetation and anthropogenic inventory of the province's Grassland Natural Region. It addresses requirements defined by the province's rangeland management, fish and wildlife, wetland management, and land-use operations sectors. The Grassland Vegetation Inventory can be generalized as a landscape (rangeland sites), native vegetation, and land use (agricultural, industrial, and populated areas) inventory with emphasis placed on the native public land component.

The GVI separates the landscape into 'Site Types'. These can be thought of as different habitat types.



