

**AN ALTERNATIVE FUTURES ANALYSIS OF FLATHEAD COUNTY,
MONTANA: EVALUATING TRADEOFFS AMONG ECONOMIC GROWTH,
LAND USE POLICY AND LAND USE CHANGE**

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ABSTRACT

Nine alternative futures were developed for Flathead County, MT for two study periods. The alternative futures involve different combinations of assumptions regarding future economic growth and land use policies. The alternative futures were developed using the RECID (Residential and Commercial-Institutional-Industrial Development) model, which has two components: the economic module and the land use change module. The economic module translates output growth in 11 different economic sectors into job growth, which is then used to project future acreage requirements for residential and commercial-institutional-industrial (CI&I) development.

In the land use change module, each parcel available for development is assigned a development attractiveness score (DAS), which is based on the parcel's distance from various amenities and disamenities. The DASs are adjusted using transition probabilities, which take into account historical changes in land use cover. Parcels are converted to residential and CI&I uses based on the adjusted DASs. The RECID model is employed in conjunction with a Geographic Information System (GIS) to spatially simulate the nine alternative futures. The study has numerous potential applications. In particular, the results may be used to examine water quality, wildlife habitat, housing affordability, and the cost of public services in the county.