How Green is your Valley?
Satellite Based Indicators of Watershed Condition and Change

Changes in Vegetative Cover
The 22-year time series of images from the NOAA AVHRR Vegetation satellites can be used to analyse changes in vegetation coverage and condition in British Columbia. The panel on the left shows year-by-year variability, identifying green and dry years in different parts of the province. The image on the right shows the long-term trend, highlighting areas of growth and decline.

The plots in the middle give the full time series of summer NDVI for the 12 major watersheds comprising the Fraser River drainage basin.

NDVI Anomalies
This sequence of images shows yearly anomalies in summer NDVI, that answer the question, "How green was that year, compared to normal?" Some regions of the province were drier than average, green areas were greater than average, while areas were near average.

Long-term Trend
This image is a map of the average 22-year trend in summer NDVI. Green areas exhibited an overall increase in vegetation from 1985 to 2006. Brown areas showed decreases. Light colored areas underwent little or no long-term change.

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