

Forest Vegetation Types in the Vicinity of Eielson High School

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Project Goals

- **Develop a GIS project that students can use to determine forest vegetation types near Eielson High School.**

Project Objectives

- **Generate a GIS project that incorporates forest vegetation types in the vicinity of Eielson High School.**
- **Use GPS to locate specific sites to be used to collect field data.**
- **Make the GIS project available to students to add data collected from specified locations.**

Science and Math Standards

- Understand that scientific knowledge is validated by repeated specific experiments that conclude similar results.
- Collect and make factual reporting of data.
- Design and conduct scientific investigations using appropriate instruments.
- Collect, organize, analyze, interpret, represent, and formulate questions about data.
- Explore problems and describe results using graphical, numeric, and other mathematical models or representations.

Data

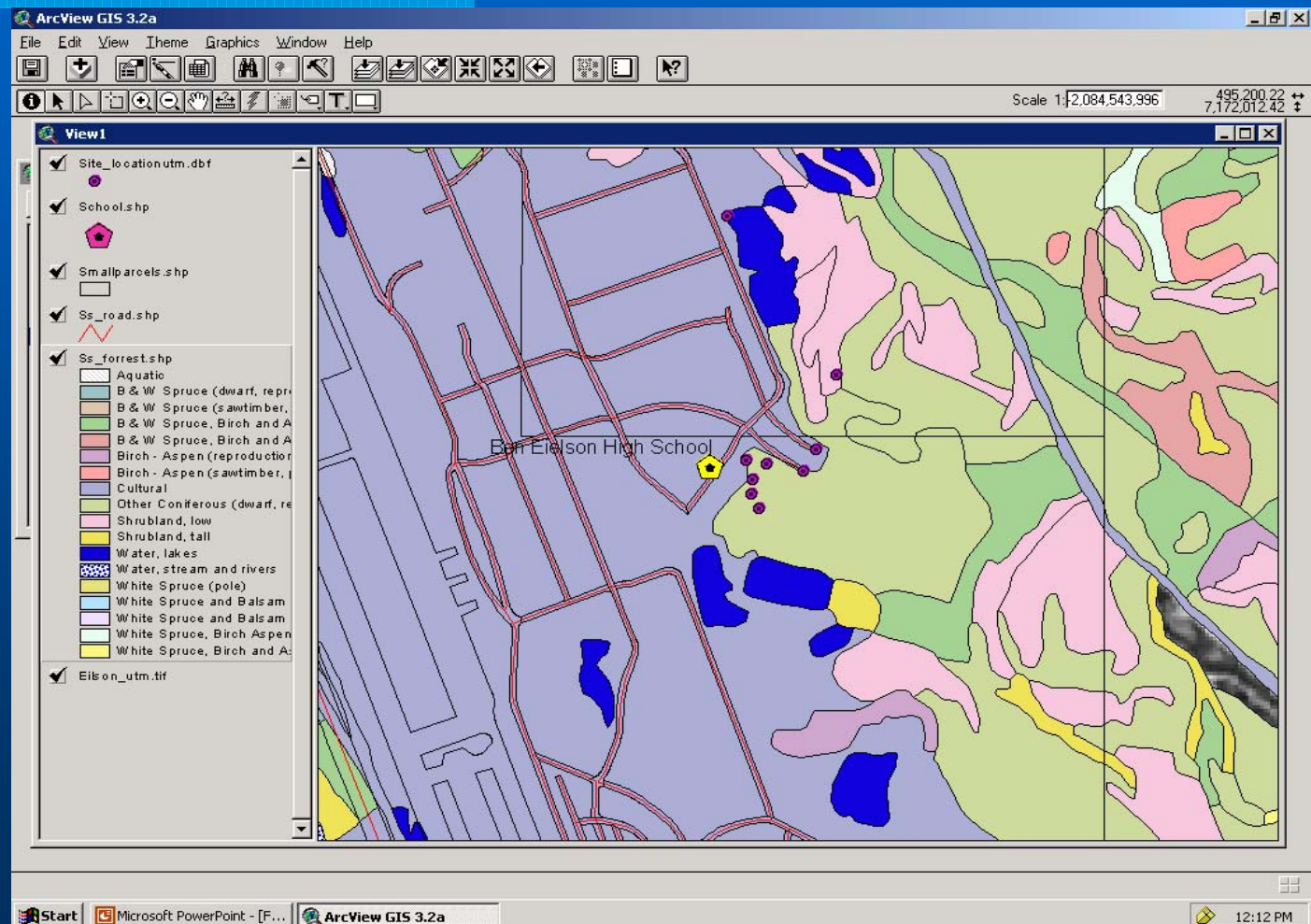
- **Maps**
 - **Vegetation type, parcels, roads, and water feature from Fairbanks North Star Borough GIS.**
- **Satellite image from GINA UAF.**
- **Field photos taken at GPS coordinates near Eielson High School.**

Approach

- Layer existing forest vegetation type data on layers showing physical landmarks.
- Generated a theme with georeferenced field collection sites linked to photos from each site.
- Generated a theme with the location of Eielson High School.

Vegetation Types, Parcels, Roads, Field Sites and School

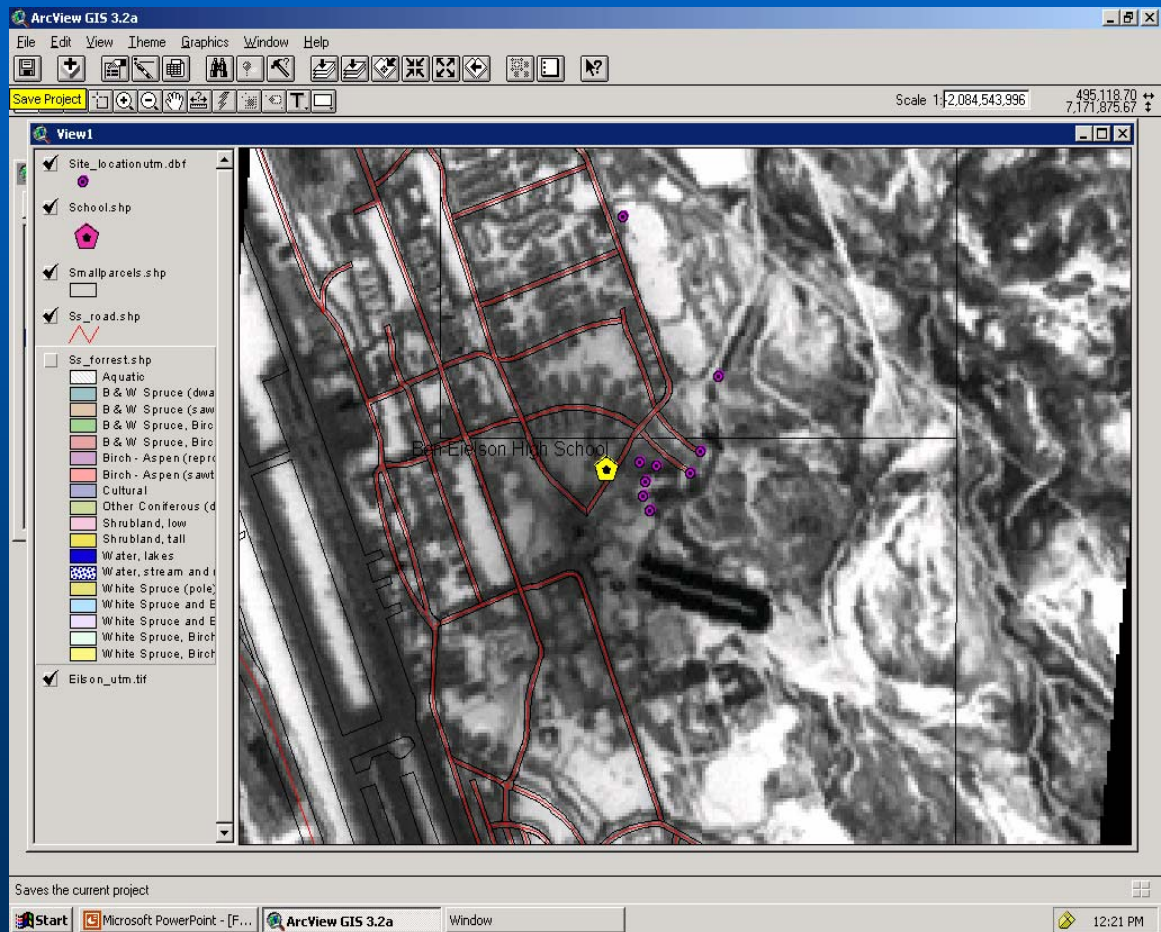
- Separate themes for each set of data.
- Satellite image is under the forest vegetation theme and can be seen when forest vegetation is not selected



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Satellite Image

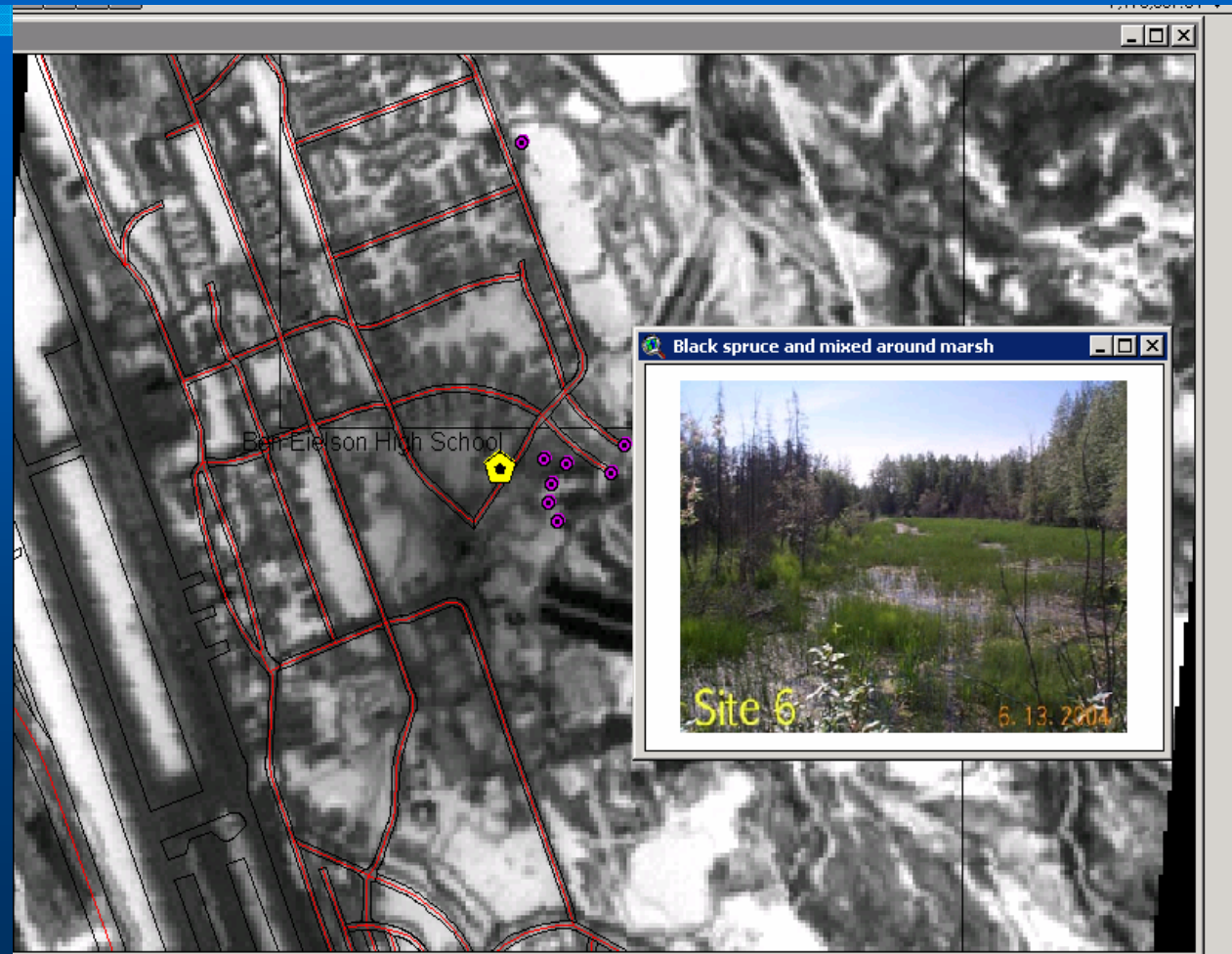
- Forest type turned off to show satellite image
- The other themes are shown over the image



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Photos linked to specific sites

- A photo is linked to each specific field site.



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Conclusion

- **GIS is a useful tool to help students study, collect, and analyze data.**
- **The visual geospatial display makes it easier to recognize patterns that might otherwise be missed.**
- **GIS/GPS can be used to facilitate the collection of additional information from specific locations.**

Future Direction

- **Student collected geospatial data will be added to the GIS as attributes to current and future field collection sites.**

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