

GIS Awareness



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CENIC Roundtable

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My Background

- BA in Geography
San Diego State, 1973
- IT/Engineering: hands-on and mgmt
1974-2000
- 2000-present: part-time IT Consulting
Analysis, Planning, Project Management,
IT/Business Process Integration



Current Project

- Humboldt County Telecom Assessment
- Deliverables:
 - Report on infrastructure/usage
 - Maps of broadband coverage, cell towers
 - Map of ILEC territories/CO's
 - Fiber map (Victor Braud)
 - Recommendations
 - Telecom element in General Plan Update
 - Infrastructure
 - Workforce development
 - IT industry cluster development



Project Needs

RFP Response and Assumptions

- Talked to Senior Planner about General Plans and potential telecom element
 - Policy
 - Make policies something achievable
 - Download free GIS software - Accuglobe
- HSU has GIS department, I can get help, right?



Reality Check – Meet with County

- Downloaded maps from County website
- Met with County Planning to discuss deliverables
- Manager tells me to meet with and give GIS guy “data sets”
- County sells large format maps at reasonable price



Reality Check – Starting the Project

- Download free GIS system to create maps I need, right? Now what? Where do I get map to start with?
- How GIS fits with my report
 - CPUC Area Code and Territory map
 - Not in GIS format
 - CPUC waiting for GIS data from telcos
 - Fiber map in AutoCAD format
 - Broadband coverage



Meeting with GIS Guy

- Took maps and samples of what I need
- What data can they accept/do they want?
 - Wants broadband coverage data
 - Wants ILEC territory data
 - Sees value in being able to analyze
- How do I give them data?
 - Parcels
 - Intersections
 - “Meets and bounds”
 - Public land boundaries



Change in Course

- Give County info I gather from small cable company in SoHum
- County will update and give me cell tower maps
- Hire graphical work to take CPUC map, fiber map, and county maps and put into usable format for reports



Cable Refranchising and GIS

- Cox Communications franchise with County and 7 cities is under negotiation
- Cox must furnish County with map
- County will enter data into GIS system
 - Assists in negotiation
 - Data about parcels
- Starstream Cable
 - Took fire district map, got addresses for entry into GIS system



GIS – Definitions

- GIS is a system of hardware and software used for storage, retrieval, mapping, and analysis of geographic data.
- Mapping software that links information about where things are with what things are like.



About GIS Data

- Information stored as collection of layers
 - Explicit geographic references – latitude/longitude
 - Implicit geographic references – address zip code, road name, census tract name
- Data layers must match up to each other
- Attributes – categories, ranks, counts, amounts, ratios, proportions, densities



More About GIS Data

■ Metadata

- Data about data
- Information to make the data useful
- Definitions, key words, indices, how data was collected, steps used to analyze

■ Cartography

- Allows changes at minimal cost
- Representation of data

TELEPHONE EXCHANGE AREAS

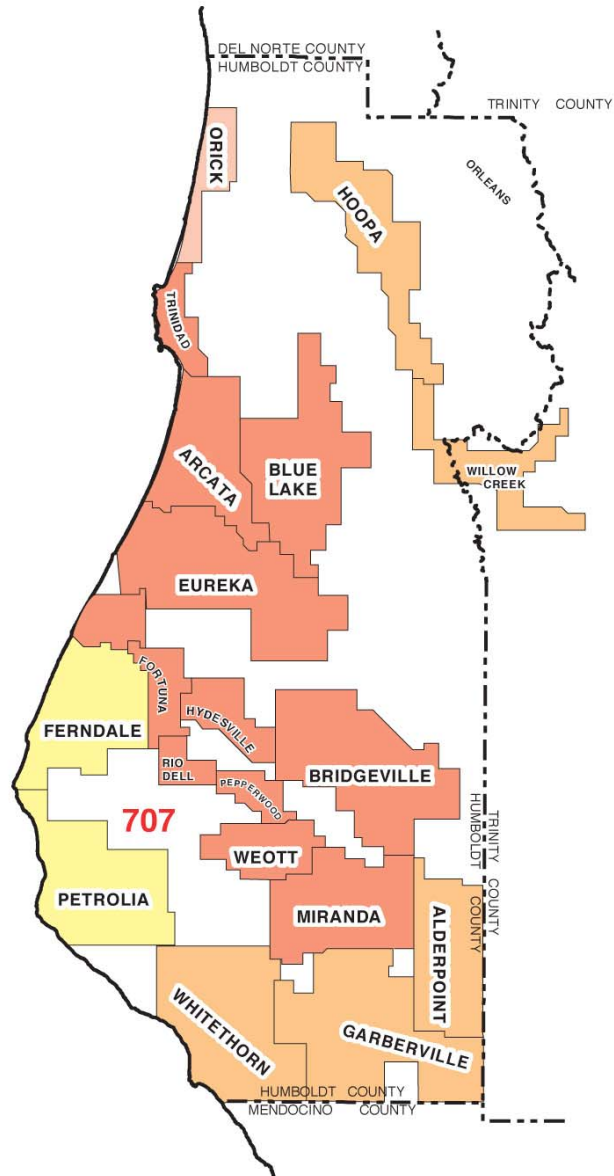
Humboldt County, CA

- SBC California
- Verizon California
- Verizon Northwest
- Frontier / Citizens
- Unfiled Territory

PACIFIC OCEAN



Map Location





Resources

- <http://www.gis.com/>
- www.esri.com

Humboldt County GIS maps:

<http://www.co.humboldt.ca.us/planning/maps/>