

Appendix A

Needs Assessment for GIS End-users

Real Estate: Steve Gale handed out RE s list of possible GIS applications (Encl 1). Steve thought most of the GIS activities would be in the out-grants. Presently RE is keeping one draftsman busy full time. During the initial data entry period, the workstation usage will be high, but afterwards the usage will be about 4 hours per day. Real Estate s entry into GIS is vital to other users of GIS as a reference data base.

Engineering:

Survey and Mapping: Dick Gilman stated that Survey & Mapping s role will mainly be as data entry into GIS through the Zeiss stereoplotter digital data and the survey control points. Survey does need a method of retrieving and listing designated control points as needed other than a full blown workstation. Presently they have to hunt up old abstracts and survey books for their data. They could share a workstation with Real Estate for their needs.

Design Branch: Chris Hartman reported that the Design Branch would utilize the GIS for Master Planning about twice a year but each time it is used, it will be extensive use lasting about a month. GIS could also be used to generate slope maps in designing their FAA projects. As-built of maps is another application. Design Branch could also share a workstation. Once GIS is on line, Chris believed Engineering will have a need to interrogate and utilize the data.

Planning: Blaise Grden reported on three branches in Planning with GIS applications.

(1) Hydrology: Watershed studies.

(2) Environmental Resources: Fish (mapping and analysis)
Habitat evaluation and mapping.
Cultural resources.
Environmental impacts.

(3) Plan Formulation: Master Planning on six projects.
Three levels of mapping plus analysis (local, project,
regional).

Blaise stated that Planning could keep one workstation busy. Environmental Resources Branch especially will have daily need for a workstation. Master Planning will require data to be stored on a project level with local site planning within the project.

OCR: A1 Sutlick read the list of OCR's GIS applications (Encl 2). Some of the applications listed are not presently available by hand. The other applications are hand prepared. A1 stated that OCR could use a workstation full time initially and later install remote stations at the projects:

A GIS manager will be needed to run the system and would need a fully functional workstation to be able to provide all of the required support. The system configuration, as defined from an end-user standpoint is described below.

- 1 workstation w/digitizing table - Drafting
- 1 workstation - Real Estate & Engineering
- 1 workstation - Planning
- 1 workstation - OCR
- 1 workstation - GIS Manager

The study group thought that marrying of CADD and GIS was a good idea and we should take a hard look at developing an integrated GIS/CADD system package which will meet both functional requirements.

The system is estimated to require about 1 gigabytes of disk storage for the GIS data alone initially. This estimate is conservatively based upon the amount of 7.5 minute USGS Quadrangles within the Master Planning project areas, and estimates of the data themes and scale requirements of the various projected needs.

Possible Real Estate Applications
for a Geographic Information System

1. Management and Disposal Area

- a. Real property utilization reports, Executive Order Surveys, exhibits and mapping data.
- b. Outgrant mapping for all civil works projects.
- c. Encroachment detection.
- d. Mapping for oil and gas leasing and availability.
- e. Determination of Availability of land for outgrants.
- f. Map products for outgrants and disposals.

2. Planning and Control Area.

- a. Real estate audit assemblies.
- b. Payment in lieu of taxes analyses.
- c. Recurring reports involving acreage information and analyses, ad hoc inquires.

3. Acquisition and Project Planning.

- a. Real Estate Design Memoranda, maps and analyses.
- b. Ownership maps of Local Coop. projects.
- c. Mobilization support and MMP's.

Although Real Estate Division has identified some possible applications, our needs may only justify part time use of a shared work station.

OCR GIS Applications

1. Habitat Management

- a. Habitat structures mapping.
 - b. Vegetation mapping.
 - c. Nest locations/nesting densities evaluations.
 - d. Acreages of any project category.
 - e. Other geographic based data locations, such as, noxious weed control, irrigation, plantings;
- all aspects of data which change over time and must be related to other work.

2. Recreation.

- a. Accident/Incident reporting by area at projects.
- b. Recreation usage/densities by area or site on project.
- c. Locations of hazardous boating sites.
- d. Locations of facilities, utilities, etc. within sites.
- e. Overlays of enforcement activities and safety problems.

3. Contracts.

- a. Preparation of maps for contracts - facility locations, acreages, problem areas, work sites, etc.
- b. Monitoring progress of contracts.
- c. Monitoring problem areas; i.e., deficiencies by locations rather than numbers.

4. Navigation.

- a. Siltation of areas in river, shifting bars, areas of buildup, areas dredged, potential spoil areas.
- b. Navigation obstructions.
- c. Locations of markers and buoys.

5. Regulatory.

- a. Mapping historical data on permits; locations, previous work, problem areas.
- b. Information on violations; size/location.
- c. Overlays of potential problems - wetlands vs proposed developments.