County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 96060

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ALVIN D. JAMES, DIRECTOR

May 11, 1999

AGENDA: May 25, 1999

Board of Supervisors
County of Santa Cruz
701 Ocean Street
Santa Cruz, California 95060

SUBJECT: INTERNET GRANT APPLICATION

Members of the Board:

As you know, the Information Services Department has developed a County Web page to facilitate the public's access to information about the activities of the various County departments, Board agendas, environmental information reports, election information, and press releases, among other types of information. With the planned move of the County's Web page from a local Internet Service Provider to a County Web server, we have begun investigating the feasibility of making information from the County's GIS available to the public through the Internet.

We have received inquiries from the public about access to land use and geographic information system (GIS) information via the Internet. As your Board knows, land use in Santa Cruz County is a subject of great interest to its population. As an example of volume of questions, just one of the County's public counters, the Zoning Counter, has 8,300 in-person contacts and receives 8,400 phone calls annually.

Many California jurisdictions have, with the assistance of software vendors, established Internet/Intranet applications for their geographic information systems. Many of these are operational, but more importantly for us, the experience gained by these jurisdictions and their vendors can benefit the County. Furthermore, ESRI (Environmental Systems Research Institute), vendor of the ArcInfo/ArcView line of GIS software, has a Livable Communities Grant Series currently available that could assist the County in getting a start in publication of its GIS and land based information on the Internet. The Public Access Grant Program awards an IBM computer that can be used as a GIS Internet server and Internet publication software.

This grant program is an exciting opportunity for the County. The grant hardware meets the County IBM standard. The County currently uses ESRI's ArcView desktop GIS software in several departments. The Internet Map Server software being offered through the grant program is compatible with ArcView. In addition, ESRI software is currently used by the Cities of Capitola, Santa Cruz, Scotts Valley, and Watsonville, several special districts, and Association of Monterey Bay Area Governments (AMBAG). ESRI hosts quarterly user group. meetings in the Monterey Bay area to share applications developed by various users, demonstrate software features, and facilitate solutions to problems experienced by users.

While we believe it is in the public interest to make GIS data more available on a parcel by parcel basis to the public in general, as well as to land use professionals, we recognize the need to protect the County's investment in its GTS. The software being granted publishes the GIS data as images, not as "intelligent" maps. Any third party wishing to use the County's GIS to market their products would still need to come to the County to license and pay for the data.

Requirements of the grant, if awarded, include use of the granted computer as a GIS Tnternet server, sharing of project successes with other public agencies, and becoming a reference site for IBM and ESRI. A performance report would be due to ESRI twelve months after the grant award.

It is, therefore, recommended that your Board:

1. Authorize the Planning Department to submit a Livable Communities Public Access grant;

2. Authorize the Chairperson to sign the letter of support; and

3. Direct the Planning Department to report back with an implementation plan for the GIS Internet application upon award of grant.

Sincerely,

Alvin D. James, AICP
Planning Director

Robert C. Petersen
County Assessor

Kenneth D. Wedderburn
Tnformation Services Director

RECOMMENDED:

Susan A. Mauriello
County Administrative Officer

County of Santa Cruz

BOARD OF SUPERVISORS

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95080

(831) 454-2200

JEFF ALMQUIST, CHAIRPERSON

May 25, 1999

Attn: Grant Coordinator
Public Access Grant Program
380 New York Street
Redlands, CA 923 73-8 100

Dear Grant Coordinator:

RE: Letter of Support for Application for the Livable Communities Public Access Grant Program

This grant request is a step forward in our on-going efforts to improve access by the public to land use information in Santa Cruz County. Santa Cruz County is one of the first counties in California to have a functioning parcel-based Geographic Information System. It has been in production since 199 1, giving County staff in many departments the advantage of readily available, consistently accurate information.

But, since the current system exists on the County's mainframe computer, access to GIS information by the public has been limited. Our GIS group has, at the regional GIS user group meetings and at GIS conferences, seen examples of publication of land use information on the Internet by other jurisdictions. As a result, they have become advocates for moving the County forward in wider publication of land based information.

Additionally, County government is planning an increased Internet presence. Many departments have published information brochures and other information on the existing County Web page. On-line building permit applications are available. Additional departments are developing Web pages. Formation of a County Intranet is also planned for next fiscal year.

Publication of GIS data over the Internet is totally consistent with our vision for this County, where I and my colleagues on the Board have worked to improve the level and use of technology. I see publication of GIS information as integral to these efforts and I look forward to working with ESRI to realize this vision.

Sincerely,

Jeff Almquist
Chairperson, Board of Supervisors

B. ORGANIZATIONAL PROFILE OF SANTA CRUZ COUNTY GIS

1. Organization Name:	Santa Cruz County GIS
2. Organization Mailing Address:	Planning Department 701 Ocean Street Santa Cruz, CA 95060
3. Population:	229,734 (1990 census)
4. Number of parcels in jurisdiction:	92,000
5. Organizational contact:	Gale Conley
6. Contact phone	(831) 454-3101
FAX	(831) 454-2131
E-mail	gale.conley@co.santa-cruz.ca.us

C. WHY MY AGENCY SHOULD BE CONSIDERED FOR THE *LIKABLE COMMUNITIES PUBLIC ACCESS GRANT*

Santa Cruz County is one of the first counties in California to have a functioning parcel-based Geographic Information System. The GIS has been in production since 199 1, giving County staff in many departments the advantage of readily available, consistently accurate information. But, since the current system exists on the County's mainframe computer, access to GIS information by the public has been limited to what they learn through a direct contact with County staff or through hard copy maps.

Land use in Santa Cruz County is a subject of great interest to its population. Individual property owners are concerned about development issues related to their properties. As an example of volume of questions, on an average day at the Zoning Counter 3 1 in-person inquiries are received during the morning and 32 phone calls are received during the afternoon. Neighborhood development proposals attract large numbers of opponents and proponents. There have been a number of natural disasters, including floods, landslides, and a major earthquake. Growth management and protection of natural resources are matters of vital interest to citizens. The public is aware of these and other land based issues, as we see daily at the public counters in the various County departments.

The time is right. Santa Cruz County has the data to publish, and the public who wants and needs to use it. The County is already sharing parcel-based maps and data with the four cities of Santa Cruz County, as well as special districts. Publishing GIS on the Internet will allow the County to share its GIS with citizens and land use professionals, as well. We believe that partnering with ESRI, which has helped other jurisdictions with Internet publication of GIS, will prove to be the most effective and efficient way to get started.

D. DESCRIPTION OF USE OF GIS/CAD SOFTWARE CURRENTLY USED

Santa Cruz County's GIS software was locally developed, based on Fresno County's EMIS system. Maps are drawn on PC work stations using Autocad. The resulting vector drawings are converted to polygons and transmitted to the County's IBM mainframe, where graphic data is viewed and queried in a VM environment, and tabular data, generated by overlapping the parcel base with various layers, is viewed in a VSE environment.

More recent evolution of the GIS has resulted in use of ArcView 3.1, Paradox 8, and Autocad Map 3 to manipulate and analyze GIS data. ArcView, along with Spatial Analyst, provides the bulk of GIS analysis and map publication. Specialized ArcView applications have been placed on the desktop for use by various staff. GIS staff employ Avenue, Autolisp, and Opal code, written both in-house and by others, to extend the capabilities of these primary tools.

Santa Cruz County is in the process of investigating a change of platform for the GIS from the mainframe to a total client/server environment. The group working on the plan for this change is currently identifying the functionality needed in the new system.

E. DESCRIPTION OF KEY PERSONNEL

1. Proposed management structure of the GIS program

Santa Cruz County's GIS is currently and has been from the beginning a cooperative effort among the County Assessor, Planning Department, and Information Services Department. The key function of each is:

County **Assessor** maintains the base layer (Assessor parcels) and the tax rate area layer. In addition, the Assessor staff use the base layer to produce the traditional and much relied on Assessor Parcel Maps.

The Planning Department GIS staff maintains the rest of the approximately 90 GIS layers, creates new layers as needed, produces maps, and develops desktop applications.

The Information Services Department provides programmer-analyst support for the mainframe GIS functions.

In addition, an inter-departmental group (the Departmental Liaisons) meets monthly to discuss topics of interest in use of geographic information systems in the various land use departments, including the Assessor, Planning, Public Works, Agricultural Commissioner, Parks, Environmental Health, and fire agencies.

2. Proposed GIS management personnel

Departmental management oversees the GIS functions in the three departments having the major responsibility for maintaining the GIS. They are:

Alvin James, Planning Director
Bob Petersen, County Assessor
Ken Wedderburn, Information Services Director

More direct management is provided by:

Mike Dever, Assistant Planning Director, and Gale Conley, GIS Coordinator, in Planning
Jessie Mudgett, Chief Deputy Assessor for Administration in Assessor's Office
Jim Kinnebrew, Division Manager in Information Services

3. Proposed GIS technical/professional staff

Presently the technical staff is comprised of two GIS Analysts, three GIS Technicians, and one Programmer-Analyst. This core staff is augmented by extra help or limited term staff based on need and available funds. In addition, there is usually at least one intern working on a project for credit; the University of California at Santa Cruz has a very active GIS lab in its Environmental Studies program. For the purposes of Internet publication, the core staff would also be assisted by the Programmer-Analyst in Information Services who has been the lead for

the County's Web page publication.

These staff are:

Cheryl Basinger, GIS Technician in Assessor's Office
Connie Gardner, GIS Technician in Planning
Gulla Gisladottir, GIS Technician in Assessor's Office
Don Hershberger, Sr. Programmer-Analyst in Information Services (Internet)
Brent Levin, Sr. GIS Analyst in Planning
Jim Keller, GIS Analyst in Planning
Paul Stephens, Sr. Programmer-Analyst in Information Services (GIS)

F. DESCRIPTION OF PLANS TO DISTRIBUTE GIS DATA AND APPLICATIONS THROUGHOUT THE ORGANIZATION

While the County's GIS staff spans three departments, the user base is truly County-wide. Access to the GIS, both on the mainframe and through desktop Arcview applications, is available to all County departments as needed; the mainframe GIS data is "live", while desktop applications are updated through periodic "snapshot" updates, as is the data for the four cities and various special districts. The goal, however, is to make the County's GIS available to all County staff, other agencies, and to the public, in "live" form, via an internet/intranet interface.

1. Managing: Department

The Planning Department's GIS staff, working with staff from the Assessor's office and Information Services, is responsible for the maintenance and dissemination of GIS data. Information Services encourages each County department to maintain its own Internet presence and data. It is therefore anticipated that the GIS staff will continue their role with GIS on the Internet, as they do with the mainframe and PC applications.

2. Multiple Department Participation

Participation to this point has been encouraged through various means: sponsorship by

County management, meetings of the Departmental Liaison group, invitations to the regional GIS users' group meetings, exposure to maps and desktop applications developed for various users, and, very often, hallway chats! Use of these techniques will continue, as well as more organized communication, such as a regularly published newsletter and a group for users (as opposed to the management personnel who participate in the Departmental Liaison group.)

G. DESCRIPTION OF PROPOSED APPLICATIONS OR USE OF GIS DATABASES

During the past year, the GIS staff has begun providing PC-based GIS capabilities to users within County departments. With the implementation of the ArcView based Environmental Resource Mapping Application (which maps soils reports and other environmental information for planners), interest grows and requests for application development and data access are replacing requests for maps. Using Avenue, GIS staff continue to develop applications tailored specifically for County department users. The experience gained in developing these applications will benefit the GIS staff in expanding access by the public to County GIS data via the Internet.

For users outside of County government, we are engaged in the process of identifying data needs. While we want to meet the needs of the public in general who need land use data on an infrequent basis (as when buying a home or learning more about a development proposal in their neighborhood), we also want to facilitate access by land use professionals, such as appraisers, insurers, realtors, and consultants, to the information they need to do their jobs. We have identified the "most frequently asked" questions (see attached list) and are currently evaluating which can be best answered with a map application and which can be answered by a simple query of tabular data.

Very often County staff are asked why the County does not yet make land based information available on the Internet. We have found that some of these people are willing to work with us to insure that we meet their needs, and we intend to encourage their participation in development of these applications to the greatest extent possible.

H. DESCRIPTION OF PERCEIVED BENEFITS TO BE DERIVED FROM THE IMPLEMENTATION OF THE GRANTED SOFTWARE

With the GIS available on the Internet, the public would have greatly enhanced access to geographically based information. Rather than phoning or traveling to the County Government Center, they would be able to access information from their homes or offices at any time convenient to them. They would then be better prepared to use the time that they do spend at the County Government Center in a more productive manner.

For County government, GIS information on the Internet means a more manageable presence of the public at the various public service counters. The questions asked are more likely to be the ones needing staff help; the more routine questions can be answered by the various Internet applications. Eventually, it may be possible to reduce staff requirements for the public information activities by phone and in person and redirect staff to more critical activities, and thereby better serve our public.