



**Date:** January 31, 2001  
**To:** Inter-Regional Partnership Members  
**From:** Staff  
**RE:** Integrated Geographic Information Systems Update

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## Background

AB 2864, the jobs/housing legislation, offers much detail as to what the integrated GIS should entail. Specifically, the legislation calls for the following:

- Demographic data, including population and employment by census tract; and
- Projected population and employment growth data over a 20-year period; and
- Transportation data, including traffic capacity and usage, transit access and usage, and journey-to-work data; and
- Land use information, including general plan layers and zoning designations; and
- Environmental data, including floodplains, slopes, and contamination.

The IRP integrated GIS will include:

- Available data resources in the five-county IRP region; and
- Required information needs of the IRP State Pilot Program.

This report suggests an integrated GIS that will fulfill legislative requirements and provide an analytical tool for the IRP and the State.

*(See attached document for an update on staff's activities on identifying available GIS resources in the IRP region.)*

## Discussion

The purpose of the integrated GIS is to conduct various analyses of the jobs/housing imbalance in the IRP region. The GIS will be an analytical tool and provide visual presentations of the relationship between existing and projected jobs and housing in the Bay Area and Central Valley. Specifically, the integrated GIS will:

- Illustrate existing and projected land use patterns in the IRP region, including population and employment growth.
- Demonstrate the impacts of unbalanced growth on major transportation corridors, such as I-580, I-680, I-205, Highways 4 and 132 and Vasco Road.

The above analysis will allow for a more informed selection of jobs/housing zones. Using GIS, the IRP may also illustrate to the State the need for additional zones in the IRP region, beyond those that are called for in AB 2864.

Besides what the integrated GIS should be able to accomplish and the types of analyses it will be able to perform, the GIS should **not** be either cost prohibitive or time consuming to develop. By focusing on GIS information that is currently available and on those data items that are essential to accomplishing the required analysis, staff is confident that the GIS should not be either too costly or time intensive to create.

To further ensure that the integrated GIS is affordable and timely to create, the GIS should not be used to perform analysis of individual zones. Data related to individual zones can be gathered through traditional and more affordable means such as through General Plan designation and zoning maps. Staff does not believe that individual zone analysis through GIS will enhance the selection process, nor the presentation capacity of the integrated GIS.

Developing a GIS system that can perform the necessary tasks will require extensive inter-cooperation between the five IRP counties. Cooperation will come in the form of meetings to discuss GIS requirements, data integration, and mapping techniques. To further assist in the development of the GIS, staff is in the process of developing a Request for Proposals for a GIS consultant to assist staff in integrating the various GIS resources that currently exist throughout the five counties and to perform technical mapping exercises.

Once functional, the IRP integrated GIS will be available to a multitude of users. Users of the system may include IRP staff, participating IRP jurisdictions, Housing and Community Development staff, and possibly additional individuals interested in the IRP.

### **Requested Action**

Staff requests that the IRP approve the components of the integrated GIS as presented in this report. Staff requests the IRP's authorization to present the described concept of the integrated GIS to the State Housing and Community Development Department for consideration and approval.

## **GIS Staff Activities & Potential Data Components**

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To determine GIS data availability, staff has begun to survey counties, cities, congestion management agencies, transit agencies, and other entities within the IRP region with GIS resources to determine data availability. Based upon findings, staff will define a GIS database that meets the IRP needs, has minimal data gaps, and is relatively easy to integrate. Preliminary information about available GIS resources indicate that the following data may be available to the IRP:

- Existing (2000) population, employment, and households by census tract
- Projected (2020) population, employment, and households by census tract
- Agriculture Land
- Census Tracts
- County and City Boundaries
- Hydrology
- Freeway/Highway VMTs
- Freeways
- Highways
- Open Space
- Primary Roads
- Rail
- Slopes
- Topography
- Transit Routes/Stations
- Wetlands

As soon as this list of available data is finalized, staff will make an assessment as to which layers are necessary to carry out the work of the IRP program and therefore which should be included in the GIS program. At the April 2001 IRP meeting, staff will have a draft list of layers and an analysis of how they will be utilized in the GIS program available for the IRP's consideration.