Providing Public Access to King County GIS Data

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King County GIS Center

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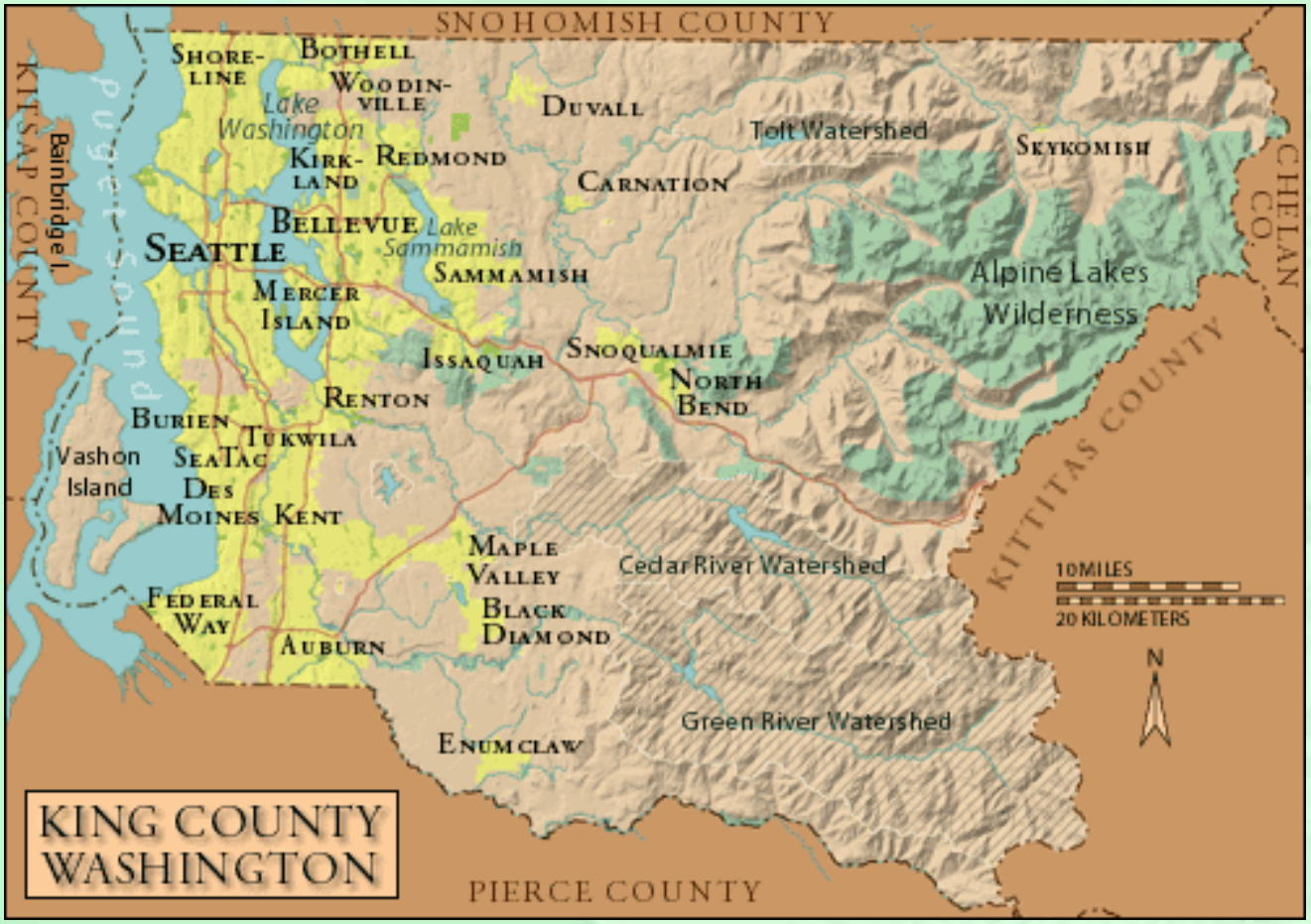
www.metrokc.gov/gis

King County, Washington



- Microsoft
- Boeing
- Amazon.Com
- Starbucks
- Port of Seattle
- Weyerhauser
- Nordstrom
- Paccar
- Univ. of Washington

- **Population (2000): 1,737,000 (12th largest US County)**
- **Area: 2130 square miles (Sea level to 8,000')**
- **39 Incorporated Cities**
- **Viable agricultural and private forestry regions**
- **Remote wilderness & watershed**

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King County GIS

Mission

"Our core business is GIS."

The King County Geographic Information System (KCGIS) is a coordinated regional geographic information resource that meets the business needs of King County, local agencies, and the general public. KCGIS comprises centrally managed core GIS resources, as well as GIS activity that is distributed across twelve county departments and related to the business activities of the agencies within those departments.

The King County GIS Center mission is to deliver top value to the region by providing efficient, high-quality GIS leadership, coordination, infrastructure, and services that meet the business needs of King County and the communities we serve.

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How is GIS Used for King County Business?

park & ride

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How is GIS used for County Business?

- Mapping
- Public information delivery
- Growth management & planning
- Property assessment
- Land development permitting
- Site selection
- Simulating environmental conditions
- Emergency response planning
- Crime analysis
- Transportation planning
- Bus & van routing
- Road maintenance management
- Public health service delivery
- E911 operations
- Airport sound abatement
- Boundary management (legislative districts, voter precincts, tax unit boundaries, etc.)

King County GIS Data

- The King County GIS Spatial Data Warehouse is a repository of GIS Data used by County staff from many different locations.
- It contains over 300 data sets created and maintained by King County GIS staff.
- Data sets are stored as ArcSDE Feature Classes and shapefiles.
- A few data sets are still maintained in Coverage format, but are being converted to ArcSDE maintenance.

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King County GIS Data

The KC Data warehouse also contains 20 + large raster data sets, including:

- **Orthophotography (portions or full county coverage)**
  - **1993, 1995, 1996, 1998, 2000, 2002**
- **Satellite imagery and derived products**
  - **Landsat and Thematic Mapper satellite images of various vintages covering all of King County and adjacent areas.**
  - **Landcover classification**
  - **Impervious surfaces**
- **LiDAR derived data and elevation data**
  - **Digital Ground Model, Digital Surface Model**
  - **First Return Intensity, Last Return Intensity**
  - **Contour Lines**
  - **Hillshade (greyscale and color ramped) images**
- **Raster Data is stored as GRIDs and TIFFs as appropriate, as well as MrSID mosaics.**
- **All recent orthophotography and hillshade imagery is also stored in ArcSDE as raster mosaics.**

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Data distribution strategy

- Provide free access to digital versions of all major maps produced to satisfy County business needs
- Exchange data with any government or organization that has GIS data for King County or adjacent counties.
- Provide free access to web applications that allow direct queries of select data, including tabular data and ArcIMS services.
- Provide CDs of standard GIS data for the cost of preparation and duplication.
- Custom data requests for imagery and any data not covered by a standard CD offered for the cost of time and material.

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Virtual Map Counter

- Over 70 maps
- PDF format provides pan and zoom ability and quality printing
- Indexed by topic, title and organization
- Updated as new maps become available.

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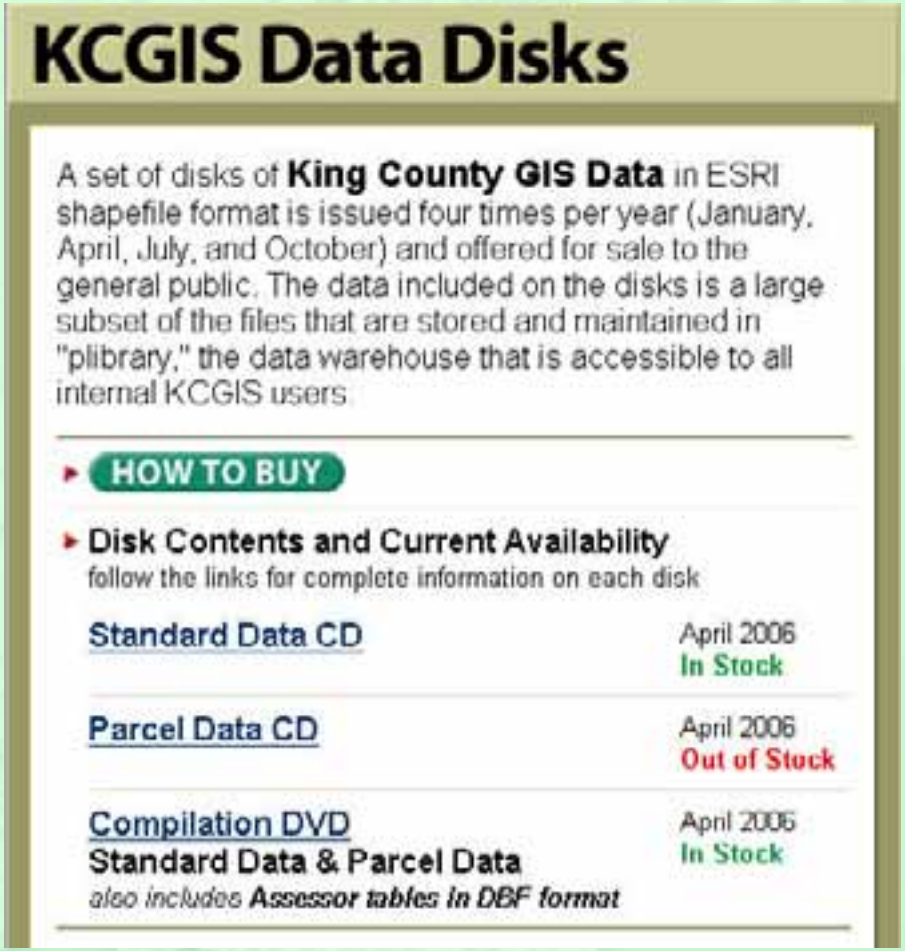
GIS Data CDs

- King County GIS offers a standard set of GIS data on CD or DVD for sale.
- Data is offered in shapefile format
- Standard Data CD contains about 80 data sets plus metadata
- Parcel Data CD contains only the parcel shapefile (approx 570,000 parcels)
- Compilation DVD contains all data from both CDs
- Updated quarterly



KCGIS Data Disks

A set of disks of **King County GIS Data** in ESRI shapefile format is issued four times per year (January, April, July, and October) and offered for sale to the general public. The data included on the disks is a large subset of the files that are stored and maintained in "plibrary," the data warehouse that is accessible to all internal KCGIS users

▸ HOW TO BUY

▸ **Disk Contents and Current Availability**
follow the links for complete information on each disk

Standard Data CD	April 2006	In Stock
Parcel Data CD	April 2006	Out of Stock
Compilation DVD **Standard Data & Parcel Data** *also includes* ***Assessor tables in DBF format***	April 2006	In Stock

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GIS Data CD Sales

- Each CD costs $100 (2006 price)
- Compilation DVD costs $200
- Our price is based only on time and materials for CD production.
- No attempt to recover data development costs.
- CDs are also used to exchange data with other jurisdictions and organizations

How to Buy KCGIS Standard Data Disks

Standard Data Request Form (37kb PDF)

Checks are gladly accepted for mail order and in-person data disk purchases. Cash is accepted for in-person purchases only. We cannot perform credit card transactions.

Procedure

Use one of the following two methods:

1. Order by Mail—*pay by check only*

   or...
2. Purchase In Person over the counter at the King Street Center in downtown Seattle—*pay by check or cash*

To Order by Mail

1. Download and print a Data Disk Purchase form: Standard Data Request Form (37kb PDF)

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Custom Data Requests

- Approximately 95% of public data requests are satisfied by the standard CD, for the others we offer custom data services
- Custom data requests are usually for orthophotography or Lidar elevation data
- Data can be delivered on CD, DVD, FTP download, or user supplied external hard drive.
- 2006 rate is $76 / hour with a 3 hour minimum

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On-line metadata

- King County maintains metadata for our GIS layers in a database.
- Output as HTML pages
- Published on GIS Center website
- Indexed by name, subject, and responsible department.
- HTML pages are included with Data CDs

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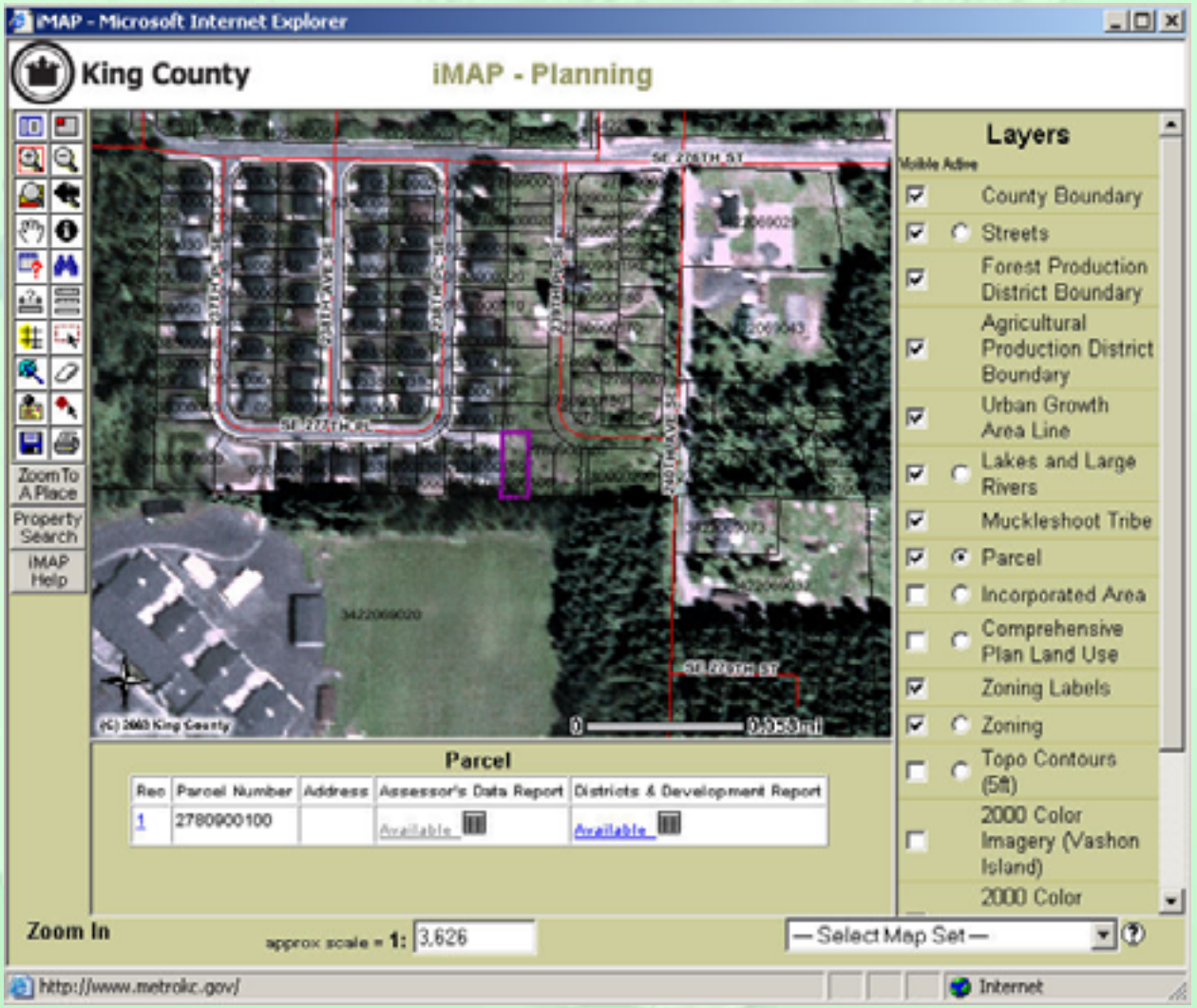
King County iMAP

- A customized HTML viewer for ArcIMS
- Fixed bugs, added custom features
- Implemented as a common interface to multiple “map sets”
- Each map set is an ArcIMS map service addressing a topic or business need.
- Users can access multiple map sets in one interface during a single session
- Launched in 2001



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King County iMAP – Map Sets

- Map sets organize data based on subject or business need.
- New map sets are easily integrated into iMAP as needed.
- Currently we have eleven map sets in the iMAP interface.
- Map sets are authored by 4 different GIS professionals in different King County departments.

- Each map set is documented with:
  - Abstract, describing why this set of data was collected as a map set and what purpose it serves.
  - Possible uses, listing 3 – 5 reasons why one would use this particular map set.
  - Available map layers, detailing which data layers are included in the map set and linking to their on-line metadata.

- Each map set contains standard “base layers”, such as streets, water bodies, cities, which utilize standard naming conventions and symbology.

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King County won 3rd place in the 2001 Geography Network Challenge for our first ArcIMS map service.

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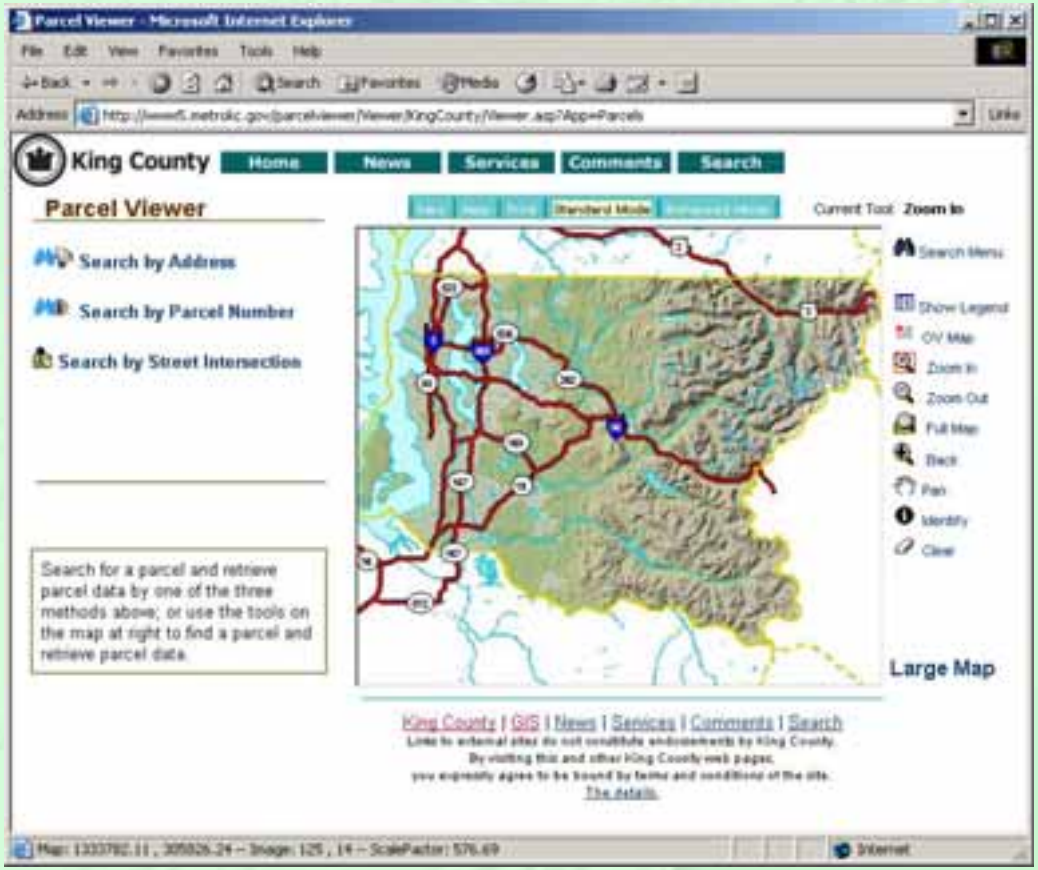
Parcel Viewer

- More streamlined than iMAP
- Focused on parcel data
- User can navigate, search and query.
- Map display is fixed, no layers to turn on or make active.
- ASP / ActiveX connector
- Supports any connection speed
- Links to detailed reports of Assessor data, permitting data.
- Most used application on our web server – even more than iMAP.



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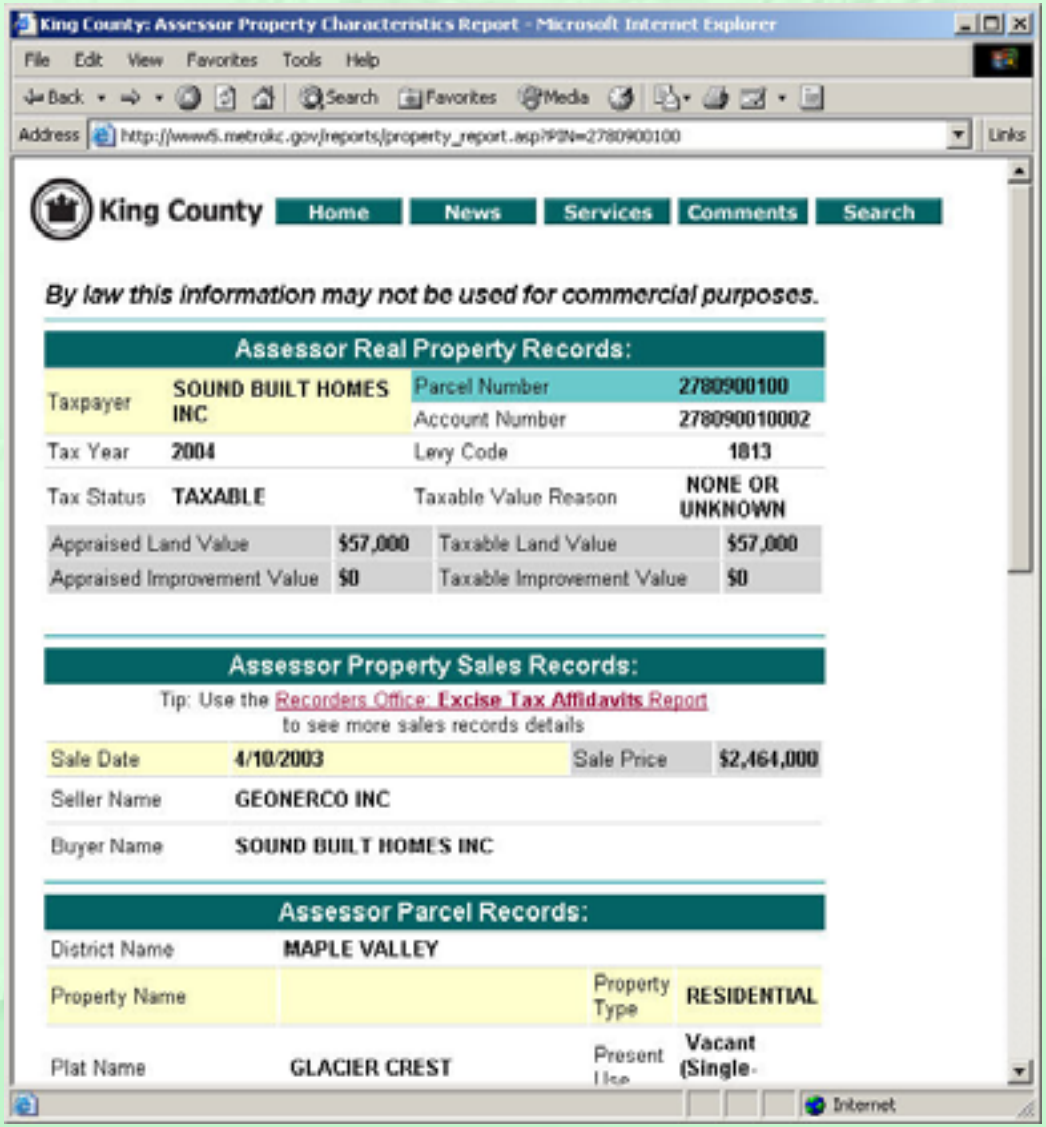
Property Report

- Detailed report from Assessor's data
- Data is obtained from the Assessor's office monthly
- Not a live link into the Assessor's database
- The report provides inputs for directly searching by address or parcel number.
- Accepts a parcel number in the URL. This is how most people arrive at the report.
- Links into this report from many different web pages and applications, including iMAP, Parcel Viewer.
- Other cities link into our page from their own pages.
- Links to other reports that accept parcel numbers.



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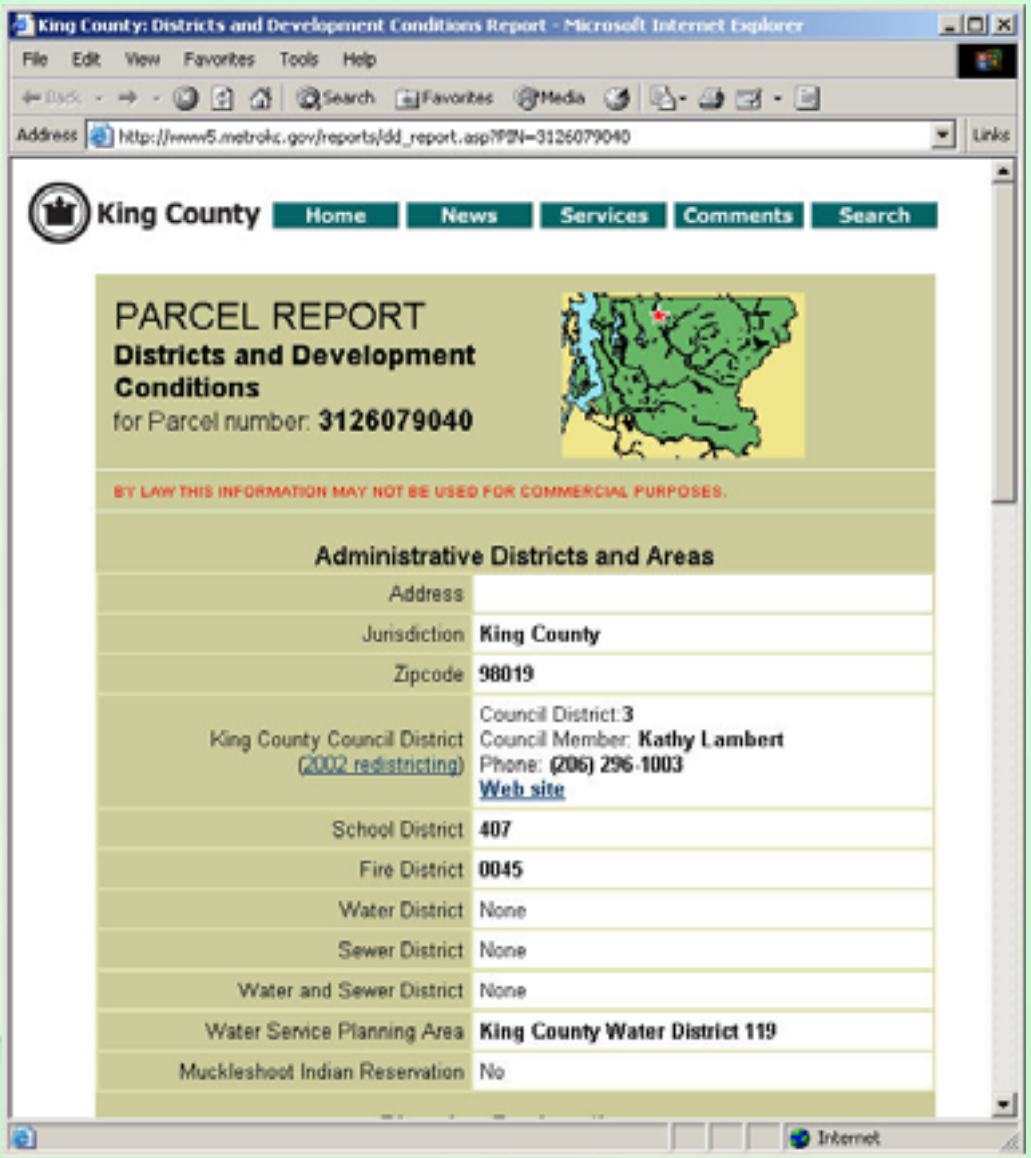
Districts and Development Conditions Report

- "Drill down" type report
- Accepts a parcel number in the URL. This is how most people arrive at the report.
- Uses ASP and ArcIMS to get the geometry of a parcel and perform a spatial query on 33 different GIS data layers
- The report provides inputs for directly searching by address or parcel number.
- Links into this report from many different web pages and applications, including iMAP, Parcel Viewer.
- Other cities link into our page from their own pages.
- Links to other reports that accept parcel numbers.



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Measures of Success

- King County GIS sells about 225 data CDs per year
- Fulfills about 60 custom data requests per year
- Data exchange with approximately 15 government or non-profit organizations
- ArcIMS server well used and rapidly growing:
  - Nov 2001: 14,663 user sessions
  - Nov 2002: 64,942 user sessions
  - Nov 2003: 96,145 user sessions

  - 2002 Total user sessions: 570,060
  - 2003 Total user sessions: 1,085,855

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Contact Information

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