

**King County  
Geographic Information System**

**2011  
Operations and Maintenance  
Plan**



**King County**

## Document History

Date	Who	Description
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# 1 Introduction

This document describes the state of the King County Geographic Information System (KCGIS) as of December 2010. It represents the culmination of a collaborative effort by personnel throughout the County to delineate the 2011 GIS work programs for participating agencies. GIS is critical to the business of King County, as demonstrated in its use for property appraisal, permit review, emergency services, human services, election services, wastewater facilities planning, natural resource and parks management, waste management, public health, road maintenance, transit services, airport management, crime analysis, budget development, policymaking, legislative support, and growth management. This document provides the details of how GIS supports those and many other business functions.

The year 2011 marks the beginning of the tenth full year of operation of KCGIS under its current governance structure. Since the spring of 2001 enterprise GIS functions within King County have been organized under a single point of accountability – the Department of Natural Resources and Parks (DNRP) Director. At that time a coordinated management structure was established to govern enterprise GIS at both a technical and policy oversight level. The result is a streamlined, cost-effective organization for the performance of King County's GIS activities.

A key mission of KCGIS is to generate an annual comprehensive work plan (known as the Operations and Maintenance Plan, or O&M Plan). This document is the 2011 edition of that work plan. It builds on the experience of the 2002 -2010 O&M plans. The plan includes information on the five major components of any GIS - hardware, software, data, applications and staff. Each of these is addressed in the context of current structures and planned changes for fiscal year 2011. The result is a comprehensive picture that details the King County GIS work program. As in previous years, the 2011 O&M Plan provides lists of data and applications, descriptions of current work tasks, details of agency GIS programs, and information on GIS budgets.

The document is organized in four parts:

- Introduction
- Organization
- Priority Initiatives
- Agency Work Plans

Four Appendices present supporting information:

- Appendix A – Summary Information
- Appendix B – KCGIS Center Services
- Appendix C – Committees
- Glossary

The Organization section details how GIS efforts are organized within the County. The Priority Initiatives section provides information on the GIS endeavors identified through the work of the governance committees as having significant benefit and hence high priority for accomplishment. These priorities change each year, with some new initiatives added and some initiatives carrying over from year to year until they are completed. The Agency Work Plans section provides information on the strengths, weaknesses, challenges and goals lying before the constituent agencies as they implement and manage their GIS programs. This section also includes a listing of each agency's major GIS projects. Appendix A provides a concise and orderly assessment of each agency's GIS staffing, budget, licensed software, data, applications and servers. Appendix B summarizes the KCGIS Center's role and its functions in the enterprise GIS. Descriptive information on the various committees that make up the governance structure is contained in Appendix C. The Glossary provides a convenient reference for terms (particularly specialized terms) used in the plan.

A list of critical tasks is distilled from the plan by the Technical Committee annually and then distributed as a separate document. The “2011 O&M Work Task List” will serve as a core working document to identify and track the progress of GIS work program items throughout the year.

KCGIS embodies a rich source of data, a unique set of innovative applications, and a group of highly skilled and motivated professionals serving the public’s geographic needs. This resource is essential to the diverse business functions of King County, and the 2011 O&M Plan describes it fully. Support from the County Executive, management, and staff has provided a solid foundation for KCGIS to continue to grow and provide high-quality, cost-effective, and valued service to the citizens of King County. The annual King County GIS O&M Plan continues to be very much a working document, not a plan to sit on the shelf. The information in this document will be used to refine King County GIS through cooperation, coordination, communication and consensus.

Many of the priority initiatives in 2011 build upon those begun in previous years. For example, substantial progress has been made in the quality of the positional accuracy of the County’s cadastral layer. Collaboration between King County Assessments and the KCGIS Center will continue these improvements in 2011, and efforts will also be continued with King County cities. TNET data will continue to be updated to meet stakeholder agencies’ requirements or determine how business practices may be adjusted to best utilize TNET. Other priority initiatives will continue such as the open source GIS cost analysis, the definition of enterprise system resource characteristics, and census data analysis tools assessment.

New application, data, and organizational initiatives have been added to further development, sharing, and redefinition of data layers that are of interest across several agencies. High priority new initiatives include the creation of a master domain table for King County assessments data, the complete development of the annexation history in the City Boundary layer, the development of regional data layers, the conflation of 2010 census data, and the development of a plan to replace the iMap query tool. Storage solutions being explored include the development of strategies to store and serve digital imagery and a strategy to archive GIS data. Another initiative of interest is the publication of County base maps to ArcGIS Online, making them freely available to the public with a minimal impact to County IT resources.

The mutual benefits to be gained from collaboration, cooperation, and consensus should allow KCGIS to achieve the challenging goals set for 2011. Adequate funding is always at risk, but the value of GIS in meeting the business needs of the county is immense. KCGIS is prepared for both the challenges and opportunities ahead in 2011.

## 2 Organization

The King County Geographic Information System (KCGIS) is a coordinated program of county agencies working in partnership with the KCGIS Center, the county's provider of enterprise GIS services. The program is aligned to meet the County Executive's vision for King County's GIS to be the premier provider of GIS services in the region.

The Director of the Department of Natural Resources and Parks (DNRP) is the responsible authority designated by the County Executive as accountable for the KCGIS program. Aiding the DNRP director in governance of the program are technical and oversight committees, which include representation from 17 agencies, as well as the KCGIS Center.

The KCGIS program's enterprise operations are housed in the KCGIS Center, which is structured as an internal service fund administered by DNRP. The enterprise operations provided by the KCGIS Center are funded by over 30 county agencies based on a sophisticated cost allocation model. Details about the funding model can be found on the KCGIS Center website. Business specific GIS services are provided by agency GIS units, however when service by an agency GIS unit is not feasible or practical, the KCGIS Center offers GIS client services on a cost reimbursable basis.

The KCGIS program is based on the principle that extensive coordination and collaboration occurs between GIS units in the county. This interaction includes most aspects of GIS from hardware and software, to data, applications, analysis, reporting, and display. The program is also based on the premise that data are the core asset of KCGIS and every effort is made to freely share and systematically improve the county's GIS data.

The sections that follow in this chapter outline the roles and responsibilities of the various participants in the KCGIS program. The organization in the back of the plan provides an illustration of the KCGIS governance structure and relationships of the participants.

### 2.1 DNRP Director

The Department of Natural Resources and Parks (DNRP) Director is the executive sponsor of the KCGIS program and is accountable to the County Executive for the overall performance of the program. The DNRP Director delegates day-to-day monitoring of the KCGIS program to the DNRP IT Service Delivery Manager who also serves as chair of the KCGIS Oversight Committee. The DNRP IT Service Delivery Manager provides reports on KCGIS activities and status to the DNRP Director's Office. The DNRP Director has responsibility to decide issues that cannot be resolved by the KCGIS Oversight Committee, to negotiate funding and develop revenues to support the KCGIS program, and to report program progress to the County Executive's Office.

### 2.2 KCGIS Oversight Committee

The KCGIS Oversight Committee is a chartered group responsible for setting the direction of the KCGIS program. Committee responsibilities include:

- Review and approve the annual KCGIS Operations and Maintenance Plan.
- Review and approve the annual budget for the KCGIS Center.
- Develop and recommend the cost allocation and funding model for the KCGIS Center.
- Review and approve standards for policy and technical direction as recommended by the KCGIS Technical Committee.
- Address issues regarding enforcement and use of standards and best practices escalated from the KCGIS Technical Committee.
- Resolve issues escalated from the KCGIS Technical Committee.

KCGIS Oversight Committee membership consists of a single representative from each of the following agencies: Department of Natural Resources and Parks, Department of Transportation – Road Services

Division, Department of Transportation – Transit Division, Department of Development and Environmental Services, and Department of Assessments. Members of the KCGIS Oversight Committee representing these agencies have the option to appoint one temporary member for a one-year term from other agencies or programmatic areas that have significant involvement in GIS. Currently, the Department of Executive Services is filling the temporary seat. Members of the KCGIS Oversight Committee must have authority for budget approval and policy decisions of GIS programs within their agency. Members of the KCGIS Oversight Committee may not serve on the KCGIS Technical Committee at the same time. The DNRP IT Service Delivery Manager, serves as the DNRP representative and permanent chair of the KCGIS Oversight Committee. Issues that cannot be resolved by the KCGIS Oversight Committee are escalated to the DNRP Director for a decision. The KCGIS Oversight Committee is required to meet at least once per quarter.

The KCGIS Oversight Committee charter and 2010 and 2011 committee member listings can be found in Appendix C.

### **2.3 KCGIS Technical Committee**

The KCGIS Technical Committee is a chartered committee accountable to the KCGIS Oversight Committee. Responsibilities of the KCGIS Technical Committee include:

- Coordinate KCGIS Center and agency GIS unit work programs and develop an annual KCGIS Operations and Maintenance Plan for review and approval by the KCGIS Oversight Committee.
- Recommend policy for GIS technology to the KCGIS Oversight Committee.
- Monitor the use of approved GIS standards and best practices and escalate enforcement issues to the KCGIS Oversight Committee.
- Inventory existing GIS data and applications and coordinate data and application development efforts.
- Provide a forum for discussion of GIS technical issues and address programmatic issues.
- Educate agencies about the value GIS will add to business practices.
- Develop and recommend GIS standards and best practices for the KCGIS program to the KCGIS Oversight Committee.
- Prepare quarterly reports on the status of the KCGIS program.

Membership in the KCGIS Technical Committee is based on the presence of a GIS work program within an agency. Presence of a work program is defined as an agency utilizing at least one license to run desktop GIS software. Each agency with a GIS work program is granted one seat on the committee. This table lists the 17 agencies currently eligible for representation on the committee. One additional seat on the committee is allocated to the KCGIS Center.

Assessments	DNRP-Parks and Recreation	DOT-Information Technology
Council	DNRP-SWD	Elections
DCHS	DNRP-WTD	OPSB
DES-Facilities Management	DNRP-WLRD	Public Health
DES-E911 Program	DOT-Airport	Sheriff's Office
DDES	DOT-Road Services	KCGIS Center

The membership of the KCGIS Technical Committee is reviewed and updated annually. A responsible authority within each participant agency appoints the KCGIS Technical Committee member. Committee members may not serve on both the KCGIS Technical Committee and the KCGIS Oversight Committee simultaneously. The KCGIS Technical Committee elects a chair and vice chair annually. Issues that

cannot be resolved by the KCGIS Technical Committee are escalated to the KCGIS Oversight Committee. The KCGIS Technical Committee is required to meet at least once per month.

At its discretion the KCGIS Technical Committee may create work groups for detailed analysis of significant organizational and technical issues. Details about current work groups can be found in Appendix C. Participation in a work group is not restricted to members of the KCGIS Technical Committee. The work groups are created to accomplish a set of objectives and the KCGIS Technical Committee reorganizes or disbands the work groups as needed.

The KCGIS Technical Committee charter and the 2010 and 2011 committee membership can be found in Appendix C.

## **2.4 Agencies**

All aspects of the KCGIS program are addressed through the consolidated governance structure of the technical and oversight committees, and are resolved by active agency participation. Agency GIS programs work together formally via the KCGIS Technical Committee, and informally via user groups, work groups, ad hoc committees, and routine business contact. An agency's responsibilities to the KCGIS program include:

- Develop and submit an annual work plan for review and inclusion in the KCGIS Operations and Maintenance Plan.
- Develop and maintain GIS data necessary to support agency business needs, and when compatible, the needs of other data stakeholders.
- Articulate agency GIS business needs to the KCGIS community.
- Comply with GIS standards and best practices approved by the KCGIS Oversight Committee.
- Ensure all agency data appropriate for sharing is integrated into the KCGIS Spatial Data Warehouse (SDW).
- Actively seek opportunities for cross-agency collaboration on data and application projects.
- Ensure data development and data maintenance tasks are quality controlled and completed on schedule.
- Ensure agency GIS personnel maintain sufficient levels of professional expertise.
- Work cooperatively in support of the regional KCGIS services vision.
- Actively participate on KCGIS committees and work groups.

## **2.5 KCGIS Center**

The KCGIS Center provides enterprise services for the KCGIS program, fee-based client services to internal and external customers, and dedicated matrix staffing to county agencies. The KCGIS Center work program is developed under the guidance of the KCGIS governance committees. The mechanism to accomplish this is the annual Operations and Maintenance (O&M) Plan that is developed by the KCGIS Technical Committee and approved by the KCGIS Oversight Committee.

Responsibilities of the KCGIS Center include:

- Manage the KCGIS Spatial Data Warehouse infrastructure.
- Provide data coordination services to ensure KCGIS data development and data maintenance activities are performed in an efficient manner and occur as planned.
- Facilitate integration of quality controlled agency data into the KCGIS Spatial Data Warehouse.
- Report data maintenance issues and concerns to the KCGIS Technical Committee.

- Set up and manage data acquisition and data sharing agreements with external agencies and coordinate response to external data requests.
- Provide tools for developing, maintaining, and accessing KCGIS metadata.
- Provide public access to GIS data.
- Maintain a record of and comply with the GIS standards and best practices approved by the KCGIS Oversight Committee.
- Provide contract administration for GIS software and consultant services.
- Actively participate on KCGIS committees.
- Market regional GIS services in coordination with King County agencies.
- Provide GIS training services to professionals and end-users.
- Provide a single point of contact for access to KCGIS client services.
- Provide GIS expertise to agencies as requested.
- Coordinate the evaluation of technical options with agency GIS programs and the KCGIS Technical Committee.
- Implement and maintain the architectural and system standards approved by the KCGIS Oversight Committee.
- Maintain a common application development environment.

## 2.6 KCGIS Budget and Funding

This section presents two tables that provide an overview of budgets and funding mechanisms for the KCGIS program.

This table outlines the approved 2011 budgeted funding for operation of the KCGIS Center. It shows each agency's contribution to the O&M funding model, as well as each agency's projected budget for fee-based client services. Also included are the allocations to fund the Matrix GIS Staff Unit that provides dedicated KCGIS Center staff to work programs in DNRP and DOT.

KCGIS Center 2011 Budget and Revenue Allocations				
Agency Name (LowOrg) <sup>1</sup>	Billed O&M Funding Model Share	Budget Available for Client Services	Billed Matrix GIS Staff Budget	Total Adopted Agency GIS Center Budget (55026) <sup>2 &amp; 3</sup>
Department of Assessments (1599)	187,999	69,472	0	257,471
DAJD: Adult (7217)	5,451	0	0	5,451
DAJD: Juvenile (7546)	962	0	0	962
DCHS (6531)	51,474	0	0	51,474
DDES (3419)	200,056	8,320	0	208,376
DES: Directors Office (1501)	3,787	0	0	3,787
DES: EMD: RECC (2991)	3,318	17,368	0	20,686
DES: EMD: E911 (7543)	266,802	16,640	0	283,442
DES: Finance (6801)	2,767	0	0	2,767
DES: HR (3010M)	300	0	0	300
DES: HR: Safety & Claims (6430M)	124	0	0	124
DES: HR: Benefits: HRIS (3050M)	35	0	0	35
DES: ITS (2542M)	1,562	8,320	0	9,882
DES: I-Net (4901)	0	4,160	0	4,160
DES: Records O & M (1440)	4,968	0	0	4,968

KCGIS Center 2011 Budget and Revenue Allocations				
Agency Name (LowOrg) <sup>1</sup>	Billed O&M Funding Model Share	Budget Available for Client Services	Billed Matrix GIS Staff Budget	Total Adopted Agency GIS Center Budget (55026) <sup>2 &amp; 3</sup>
DES: RALS (4707)	7,020	0	0	7,020
Elections (3563)	64,643	8,632	0	73,275
DES: FMD (1519)	66,878	25,792	0	92,670
DNRP: Director's Office (3110)	4,732	49,217	0	53,949
DNRP: WTD (7200)	205,702	164,062	492,772	862,536
DNRP: WLRD (2704)	216,604	0	480,892	697,496
DNRP: Parks Division (8703)	59,625	32,864	111,070	203,559
DNRP: Parks Div Capital (316008)	0	0	37,023	37,023
DNRP: SWD (1454)	69,375	0	148,720	218,095
DPH (Dept: 0800; LowOrg: 8011)	72,780	15,184	0	87,964
DPH: EMS (5804)	22,745	5,304	0	28,049
DOT: Director's Office (5011M)	3,654	0	0	3,654
DOT: Roads (1665)	260,632	0	331,734	592,366
DOT: Transit (5130M)	226,755	5,475	0	232,230
DOT: Airport (1765)	47,528	26,624	0	74,152
DOT: Fleet (1756)	17	0	0	17
Sheriff's Office (1933)	73,679	0	0	73,679
County Council (1041)	56,702	25,792	0	82,494
OPSB (1063)	51,929	34,320	0	86,249
Prosecuting Attorney's Office (5028)	2,345	25,792	0	28,137
Boundary Review Board (1596)	0	6,000	0	6,000
Judicial Administration (6602)	1,100	0	0	1,100
Superior Court (6438)	1,919	0	0	1,919
District Court (1593)	1	0	0	1
Contingent Billing to KC Agencies	0	66,985	0	66,985
Billings to Agencies Outside KC	0	128,600	0	128,600
<b>Total:</b>	<b>2,245,970</b>	<b>744,923</b>	<b>1,602,210</b>	<b>4,593,102</b>

Table Notes:

1. The LowOrg, Cost Center, or project indicated are those that the Budget Office reported for KCGIS Center funding for 2011 budget expenses.
2. Agency GIS expense budgets are generally found in account 55026.
3. The adopted budget shown may not equal actual 2011 O&M and Matrix billings and available Client Services budget because of possible billing reductions related to COLA budget elimination.

This table provides a comprehensive view of how GIS services are typically provided to each county agency by the KCGIS Center, the agency GIS units, and by outside vendors, along with the funding mechanisms for obtaining those services.

2011 King County GIS Services Funding Mechanism Summary:					
GIS Service Recipients:	GIS Service Providers:				
	KCGIS Center Costs			Agency GIS Unit <sup>4</sup>	Outside Vendors <sup>5</sup>
	O&M <sup>1</sup>	Client Service <sup>2</sup>	Matrix Staff <sup>3</sup>		
Department of Assessments	Fixed periodic I/F Transfer	Service specific I/F transfer		Budgeted & paid internally	Billed to fund

2011 King County GIS Services Funding Mechanism Summary:					
GIS Service Recipients:	GIS Service Providers:				
	KCGIS Center Costs			Agency GIS Unit <sup>4</sup>	Outside Vendors <sup>5</sup>
	O&M <sup>1</sup>	Client Service <sup>2</sup>	Matrix Staff <sup>3</sup>		
DAJD: Adult	Fixed periodic I/F Transfer				Billed to fund
DAJD: Juvenile	Fixed periodic I/F Transfer				Billed to fund
DCHS	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DDES	Fixed periodic I/F Transfer	Service specific I/F transfer		Budgeted & paid internally	Billed to fund
DES: Director's Office	Fixed periodic I/F Transfer				Billed to fund
DES: EMD: RECC	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DES: EMD: E911	Fixed periodic I/F Transfer	Service specific I/F transfer		Budgeted & paid internally	Billed to fund
DES: Finance	Fixed periodic I/F Transfer				Billed to fund
DES: HR	Fixed periodic I/F Transfer				Billed to fund
DES: HR: Safety & Claims	Fixed periodic I/F Transfer				Billed to fund
DES: HR: Benefits: HRIS	Fixed periodic I/F Transfer				Billed to fund
DES: ITS	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DES: I-Net		Service specific I/F transfer			Billed to fund
DES: Records O & M	Fixed periodic I/F Transfer				Billed to fund
DES: RALS	Fixed periodic I/F Transfer				Billed to fund
Elections	Fixed periodic I/F Transfer	Service specific I/F transfer		Budgeted & paid internally	Billed to fund
DES: Facilities Management Div	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DNRP: Director's Office	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DNRP: WTD	Periodic I/F Transfer	Service specific I/F transfer	Periodic I/F Transfer		Billed to fund
DNRP: WLRD	Fixed periodic I/F Transfer		Fixed periodic I/F Transfer		Billed to fund
DNRP: Parks Division	Fixed periodic I/F Transfer	Service specific I/F transfer	Fixed periodic I/F Transfer		Billed to fund
DNRP: SWD	Fixed periodic I/F Transfer		Fixed periodic I/F Transfer		Billed to fund
DPH	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DPH: EMS	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DOT: Director's Office	Fixed periodic I/F Transfer				Billed to fund
DOT: Roads	Fixed periodic I/F Transfer		Fixed periodic I/F Transfer	Budgeted & paid internally	Billed to fund

2011 King County GIS Services Funding Mechanism Summary:					
GIS Service Recipients:	GIS Service Providers:				
	KCGIS Center Costs			Agency GIS Unit <sup>4</sup>	Outside Vendors <sup>5</sup>
	O&M <sup>1</sup>	Client Service <sup>2</sup>	Matrix Staff <sup>3</sup>		
DOT: Transit	Fixed periodic I/F Transfer	Service specific I/F transfer		Budgeted & paid internally	Billed to fund
DOT: Airport	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DOT Fleet	Fixed periodic I/F Transfer				Billed to fund
Sheriff's Office	Fixed periodic I/F Transfer				Billed to fund
County Council	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
Office of Performance, Strategy & Budget	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
Prosecuting Attorney's Office	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
Boundary Review Board		Service specific I/F transfer			Billed to fund
Judicial Administration	Fixed periodic I/F Transfer				Billed to fund
Superior Court	Fixed periodic I/F Transfer				Billed to fund
Outside Agencies	Future – TBD	Billed to agency	Future - TBD		

Table Notes:

1. KCGIS Center O&M expenses are 'fixed costs' funded by agencies on a share model basis determined annually. The share model is developed by the KCGIS Center and reviewed and approved by the KCGIS Oversight Committee (subject to normal county budget development procedures). O&M costs are billed via AIRS form to agencies by the KCGIS Center at the beginning of the year and paid automatically on a fixed periodic basis.
2. KCGIS Center Client Services costs are provided on a 'full cost reimbursement basis', billed to agencies as work is completed. Agencies can also prepay for client services to allow budgeted funds to be used in the coming year. Most client services are billed by the hour. KCGIS data disks are sold for a fixed unit price and GIS training is provided on a per seat cost basis for each class. Client services are generally billed to King County agencies via individual interfund transfers. Outside agencies are billed via invoice and pay by check.
3. KCGIS Center Matrix GIS Staff Unit operations are funded on the basis of 'negotiated annual level of service costs' allocated to five divisions in DNRP, and DOT that receive services. Matrix GIS staffing services costs are billed via AIRS form to agencies by the KCGIS Center at the beginning of the year and paid automatically on a fixed periodic basis.
4. Agency GIS Unit costs are budgeted internally for those agencies that maintain their own separate GIS service operations.
5. Costs for outside GIS consultants and vendors are billed directly to the appropriate fund. Such costs may include GIS software and hardware purchase and maintenance (except for ArcGIS software centrally managed by the KCGIS Center, which is billed via O&M), specialized GIS-based applications, GIS data acquisition or development, GIS consultant or training services, or custom GIS application development.



### 3 KCGIS Priority Work Initiatives

In coordination with development of the annual GIS O&M plan, the KCGIS Technical Committee identifies priority work initiatives to pursue in the upcoming year and beyond. The priority initiatives described here represent a continuation of efforts begun in earlier years and new work that has recently become a focus.

The Technical Committee generally pursues work initiatives that can be accomplished using existing staff and budget resources. A large share of the work is carried out by KCGIS Center staff allocated to support the priority initiatives. For 2011 the support level from the KCGIS Center is approximately 3.0 FTE. An important factor in successful completion of the priority work initiatives is contribution from staff in other King County agencies. Therefore, Technical Committee members acknowledge there is a commitment to provide access to key staff within their agencies to help ensure the objectives of the priority work initiatives are met.

The work initiatives are administered by the KCGIS Center. Regular and periodic project reporting to the Technical Committee is required. Project status is summarized and provided to the Oversight Committee in a quarterly report. As an aid to the reporting process each initiative is assigned a tracking code. Codes beginning with "O" indicate initiatives primarily associated with organizational issues. Codes beginning with "D" indicate initiatives primarily associated with a data issue, and codes beginning with "A" indicate initiatives primarily associated with software application development.

In order to provide guidance to the KCGIS Center for allocating resources among the priority initiatives the Technical Committee conducts an advisory vote. This year each member of the committee was allocated five votes. The votes are weighted, with a member's top priority receiving five points, the second priority four points, the third priority three points, and so on. Regardless of the outcome of the advisory vote, any initiative the Technical Committee has decided to carry forward on remains on the list. However, any newly proposed initiative that does not receive any points in the voting is dropped from this year's list of priorities. The vote was conducted at the January 25, 2011 meeting of the Technical Committee. The initiatives are described in the following paragraphs, presented in descending order based on the number of points received. The points received are shown in parenthesis to the right of the initiative title.

#### D-5 Cadastral Accuracy Improvements – (29)

**Background:** The positional accuracy of King County's parcel data varies. Some areas are of poor quality and need improvement to align with more accurate data collected by GPS or survey methods. Several cities have sought positional improvements on their own and maintain their own version of parcel data. Opportunities to collaborate with cities to improve the county's parcel data are being pursued. The first of these efforts began in 2006 with an agreement between the city of SeaTac and Assessments. Since then several other cities have provided data or participated with the county in cadastral data improvement efforts. Substantial progress has been made, but much work remains. One outcome of the accuracy improvements is that boundaries tied to parcel features that are maintained as separate layers may no longer align properly with the parcel data. These boundaries then need adjustment. A systematic method to track changes to the cadastral data and notify data stewards of those changes needs to be developed.

**Objective:** The KCGIS Center and the Department of Assessments will continue to work together to find opportunities to improve the positional accuracy of the parcel data. Efforts underway with a handful of cities will continue. Other cities will be contacted to determine their interest in similar work. The KCGIS Center will continue to provide staff resources on a limited but steady basis to work on targeted areas of the county. Efforts will be focused where accurate data are available and/or positional errors are significant. A change tracking mechanism will be developed as an aid to data stewards in other agencies.

**Who would perform most of the effort:** KCGIS Center and Assessments

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** High

**A-12 iMap Replacement – Display and Query Tool Planning and Development (26)**

**Background:** iMap is based on ArcIMS technology which is no longer under development by ESRI. iMap provides many features both to members of the public and King County employees. It is estimated that several applications will be needed to replace all of the functionality of iMap. In 2010 recommendations and requirements for a “Standard Web-Based Display and Query Tool” have been completed. It is expected there is a substantial overlap in functionality between the Display and Query Tool and the iMap replacement.

**Objective:** This initiative would determine a plan to implement applications to replace the functionality of iMap which: uses ArcGIS Server or other technology under active development and support; makes recommendations on the potential and advisability of using all or portions of the Display and Query Tool to replace iMap; makes recommendations on how increasing amounts of ortho-imagery can be made accessible to the public; provides estimates of implementation effort; and establishes an implementation time-line. This would include the beginning of tool development.

**Who would perform most of the effort:** KCGIS Center and interested parties

**Requires ongoing KCGIS Center O&M:** No for planning; Yes for long term support

**Level of effort:** High

**D-15 Conflate 2010 Census Data (25)**

**Background:** In early 2011, the Census Bureau will release the 2010 Tiger/Line shapefiles to support the 2010 Census Redistricting Data (P. L. 94-171) release.

**Objective:** These will need to be conflated to the Assessor Land Record Geodatabase for the purpose of redistricting (Federal, State and County) and for use with Census tabular data.

**Who would perform most of the effort:** KCGIS Center

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** High

**D-8 TNET Data Enhancements – (16)**

**Background:** TNET is the authoritative transportation network to be used by county agencies. As TNET has become available to stakeholder agencies issues have emerged regarding its capabilities and use. Further definition of stakeholder needs is required to fully understand how TNET will be used, and how it can be modified to fit those needs or how business practices can be adjusted to make best use of TNET.

**Objective:** Form a workgroup to determine common stakeholder requirements for TNET and examine the current architecture of TNET in comparison to those requirements. Identify reasonable and prudent changes that can be made to TNET that can help meet those needs. Determine how business practices or business data are best adjusted to work within the TNET framework.

**Who would perform most of the effort:** DOT IT, DOT Road Services, and KCGIS Center

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** Medium

**D-11 DDES Wetlands Data Development – (15)**

**Background:** The wetland data provided in the SDW under the stewardship of DDES is old and showing its age to poor effect. The data represents the results of historic wetlands inventories that were not comprehensive, were recorded at a variety of scales, and were sometimes verified by aerial photograph only. As a result the wetlands data often has significant issues with

positional accuracy, and sometimes has basic connectivity errors. These data were categorized under the no-longer in effect 1990 King County Sensitive Areas (SAO) Ordinance, which was superseded by the current King County Critical Areas Ordinance (CAO) in 2005. The CAO uses completely different categorization criteria which cannot be mapped from recorded data, and field research is required to determine the new classification. There are several aspects of property regulation that are dependent on the presence and classification of wetlands. Since the CAO went into effect, DDES Critical Areas field staff have been recording wetland boundaries and classifications for properties requiring various types of permits. These data have been hand drawn onto GIS parcel base maps, and then scanned. The scanned maps are available as TIFF files, and are indexed by a GIS layer. Department of Assessments requested these data be made available as an integrated GIS layer via a 2010 priority initiative, and DDES is also interested in achieving this. Additionally wetland data have been collected from certain site plans submitted by permit applicants, and small amounts of data have been collected via GPS for site plans created by DDES staff. After the completion of this objective, it is expected DDES would be able to add newly collected wetland data to the resulting data layer as it is collected.

**Objective:** Update the existing SAO wetlands data in the SDW with the wetlands data collected by DDES since the 2005 adoption of the King County Critical Areas Ordinance. These collected data are sparse and incomplete, but represents the best data available for wetland boundaries for the parcels it was collected on, and the only data available classifying wetland under the CAO. The wetlands layer would integrate both the historic SAO data and the current CAO data, and incorporate all known improvements to the existing wetland boundaries.

**Who would perform most of the effort:** DDES and KCGIS Center

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** High

#### **O-4 Define Enterprise System Resource Characteristics – (14)**

**Background:** Agencies are becoming more dependent on the availability and performance of the KCGIS Center's Spatial Data Warehouse and its enterprise applications. Unplanned outages and routine system maintenance of KCGIS Center resources disrupt key business functions in stakeholder agencies. Agencies developing applications that access KCGIS Center data and applications need assurances those resources will be available as expected, with some agencies seeking 24/7 support. Without assurances agencies may turn to internal data and application resources, thereby undermining a key objective of the county's collaborative GIS effort. Current practices and staffing allocations in the KCGIS Center do not support 24/7 service levels. Agency requirements for minimum service levels need to be articulated, as well as desires for enhanced services. The impact to the KCGIS Center to provide minimum agreed service levels needs to be determined. Changes required to meet enhanced 24/7 services need to be defined.

**Objective:** Form a workgroup to determine the service characteristics of the KCGIS Center's enterprise resources. This group will develop recommendations to include: defined business hours, systems needing 24/7 support, maintenance windows, uptime requirements, back-up protocols, response times, issue escalation procedures, redefinition of job descriptions, and parameters for service level agreements. The workgroup recommendations will guide planning for addressing any shortcomings in the KCGIS Center's current enterprise level of service, and for establishing a path to service level enhancements.

**Who would perform most of the effort:** Everyone

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** Low

**D-14 Develop Regional Layers – (14)**

**Background:** Most local government GIS data is developed by a single agency to cover their area of interest, which typically ends at the limits of their jurisdiction. With rare exception, little effort has been made to create regional data layers that extend across jurisdictional boundaries. Positional mismatches and differences in coding of attributes are common problems.

**Objective:** The objective of this initiative is to identify and prioritize the core data layers suitable for development as regional layers, and then to put in place a process to build out those layers.

**Who would perform most of the effort:** KCGIS Center

**Requires ongoing KCGIS Center O&M:** Yes

**Level of effort:** High

**D-16 Publish Base Maps to ArcGIS Online – (13)**

**Background:** Participate in the ArcGIS Online Community Maps Program by publishing King County's generic base map. The local business community and general public will benefit from easy access to our base map, and since ESRI will host and manage the framework, we will benefit by not incurring that overhead. Easier access may also encourage developers interested in leveraging King County's base map to develop web mapping applications to include mobile applications.

**Objective:** Post the King County's generic base map online.

**Who would perform most of the effort:** KCGIS Center

**Requires ongoing KCGIS Center O&M:** Yes

**Level of effort:** Medium

**D-12 Create Master Domain Table for King County Assessments Data – (12)**

**Background:** Assessments has several tabular data sets associated to the cadastral features maintained in GIS. Many of these tables contain fields that use short-hand codes rather than literal descriptions. Interpreting these codes requires access to a look-up table. Currently there are several of these look-up tables, but no one table containing all the codes. Having a single master domain table will make retrieval codes and their descriptions more efficient.

**Objective:** This initiative would create a master domain table for Assessments data to translate all coded fields to the literal descriptions they represent.

**Who would perform most of the effort:** KCGIS Center and Assessments

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** Low/Medium

**O-8 Develop Strategies to Store and Serve Digital Imagery – (12)**

**Background:** King County has acquired a large amount of digital imagery, and plans call for accumulating much more imagery in the coming years. We have been chronically short of disk storage capacity and server processing power to efficiently and quickly deploy imagery as it is acquired.

**Objective:** This initiative would create a comprehensive strategy to store and serve digital imagery to end users. Included in the strategy would be hardware capacity planning, imagery archive protocols, imagery formatting standards, and other components as identified.

**Who would perform most of the effort:** KCGIS Center

**Requires ongoing KCGIS Center O&M:** Yes if implemented

**Level of effort:** Medium

**A-3 Census Data Analysis Tools Assessment – (9)**

**Background:** The United States Census Bureau is making dramatic changes to the content and format of the demographic data that it releases. These changes will require development of a new set of customized GIS tools in order to analyze and display this valuable information. New data will become available in 2011, and King County can begin now to plan for their release.

**Objective:** In 2011 the Census workgroup will determine application requirements for displaying new Census data. The group will investigate and assess the issues involved in developing GIS analysis and display tools for use with the 2010 Census data. This investigation should at a minimum identify the interested stakeholders, conduct an analysis of the new census data structures and content, review the current King County Census Viewer for its ability to be adapted to work with the new data, and develop a list of functional requirements for a rebuilt or entirely new census viewer application.

**Who would perform most of the effort:** KCGIS Center and interested parties

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** High

**D-13 Complete Development of the Annexation History in the City Boundary Layer – (5)**

**Background:** The authoritative city boundary layer contains a partial history of annexations. Adding more annexations information is currently an ad hoc process carried out on an occasional basis by Assessments.

**Objective:** This initiative would dedicate KCGIS Center staff resources to systematically complete the entry of annexations history into the city boundary layer.

**Who would perform most of the effort:** KCGIS Center, DDES, and Assessments

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** High

**O-9 Develop Strategy to Archive GIS Data – (5)**

**Background:** The beginnings of the county's GIS program dates back more than 20 years. GIS data has been created throughout this time. Some data are outdated, but may still have value for analysis and mapping. As our GIS data ages there is no process in place to help us determine its proper disposition.

**Objective:** This initiative would develop a strategy to preserve and archive the county's older GIS data and to put in place a system to periodically review the county's GIS data library and archive data as needed.

**Who would perform most of the effort:** KCGIS Center

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** Medium

**O-6 Open Source GIS Cost Analysis – (0)**

**Background:** In 2008-2009 the KCGIS Center conducted an assessment of open source GIS software solutions. This effort concluded that viable alternatives to costly proprietary GIS software exist, especially for GIS Web services and spatially enabled databases. However it is not clear if the county would realize tangible savings by switching to 'free' open source GIS. While cost savings may not be the only driver in a move toward open source software, it is still important to assess the financial implications.

**Objective:** The KCGIS Center will conduct a cost analysis examining the impact of moving to open source GIS software under various scenarios. Based on the scenarios potential changes to the GIS O&M funding model will be explored. Case studies of jurisdictions currently using open source GIS will be researched and summarized. A final report will be presented to the Technical Committee.

**Who would perform most of the effort:** KCGIS Center

**Requires ongoing KCGIS Center O&M:** No

**Level of effort:** Low

## 4 Work Plan

Chapter 4 of the 2011 GIS O&M Plan provides details of the GIS work plans for the KCGIS Center and the KCGIS Technical Committee member agencies. Each agency work plan is described separately in this chapter using the same outline progression to standardize work plan descriptions and to ease comparison across agencies.

Work plan descriptions are introduced with background information to clarify the purpose and objectives of the agency's GIS program, and to broadly describe how GIS activities within the agency are coordinated and managed. This introductory section typically includes description of the agency's mission and primary business responsibilities. The discussion provides detail about the strategies employed by the agency to deliver GIS services to various business functions, with an emphasis on the opportunities and challenges related to providing GIS services, cross-agency issues and dependencies, long-range goals and initiatives, and the role of the agency in the wider scope of the KCGIS program. The remainder of each agency section is focused on planned GIS activity for the year including projects, data and application development or enhancement, and changes to GIS hardware, software, or staffing.

Each agency program is presented as a separate subsection of this chapter, and programs within the same department occur sequentially. Due to its unique status as the enterprise GIS unit, the KCGIS Center is presented first and is not grouped with the other GIS programs in its parent department (DNRP).



## 4.1 King County GIS Center

### 4.1.1 Agency GIS Overview, Priorities, and Goals

- The King County GIS Center's mission is to deliver efficient, high-quality GIS technology solutions to King County agencies, the public, and our regional partners, in order to meet the business needs of King County and the communities we serve. To carry out this mission the KCGIS Center works with the KCGIS governance committees, and King County departments and their GIS programs to provide enterprise GIS services, on-demand GIS client services, and matrix GIS staff services. The core value of the KCGIS Center is to provide services that are accurate, consistent, accessible, affordable, and comprehensive.
- The KCGIS Center is an internal service fund administratively assigned to the Director's Office of the Department of Natural Resources and Parks (DNRP). The KCGIS Center Manager handles daily operation and strategic direction of the KCGIS Center and is a member of the KCGIS Technical Committee. The KCGIS Center Manager reports to the DNRP IT Service Delivery Manager, who in turn reports to the county's Chief Information Officer (CIO). The DNRP IT Service Delivery Manager monitors the activities of the KCGIS Center and serves as chair of the KCGIS Oversight Committee.
- The KCGIS Center has 27 staff positions for 2011 organized into three business units; Enterprise Operations, Client Services, and Matrix Staff Services. This staffing level is down from 28 for 2010. The downsizing was necessary to meet the three percent efficiency reduction mandated by the County Executive. The position cut was vacant through attrition. Further details regarding staffing can be found in Section 4.1.6.
- **Enterprise Operations** – The Enterprise Operations Unit provides a range of management, administrative, and technical services to support the KCGIS program. The management and administrative functions of the Enterprise Operations Unit are primarily carried out by the KCGIS Center Manager, the Marketing & Finance Manager, the Enterprise Services Manager, and the Office Manager. Services provided by this group include staff management, program development and planning, budgeting, financial services, marketing, administrative and clerical support, enterprise coordination, contract management, and data acquisition. Financial services includes management of the KCGIS internal service fund, annual budget development in coordination with the KCGIS governance committees, billing for cost allocation shares, financial expenditure controls, and financial reporting (including grant administration). The marketing efforts promote use of KCGIS products and services and further the County Executive's vision of the KCGIS Center as a regional service provider to public agencies and private firms as well as citizens. The technical functions of the Enterprise Operations Unit are provided by GIS analysts and project managers and include GIS data coordination and verification, spatial data warehousing, database administration, website management, application development, system administration, and infrastructure management. Other technical services of this group include administration and publishing of GIS metadata, maintenance of the KCGIS data download website, publication of GIS data to the county's open data portal, imagery acquisition and processing, and data integration and quality control for the cadastral maintenance lifecycle. This group also supports extended service hours from 6:30 a.m. to 5:30 p.m. each business day. The KCGIS Center Manager oversees day-to-day operation of the Enterprise Operations Unit and directs long-term and strategic planning. The DNRP IT Service Delivery Manager provides technical advice to the Enterprise Operations Unit and coordinates implementation and maintenance of the KCGIS Center's technology within the larger framework of the county's information systems.
- **Client Services** – The Client Services Unit offers a full range of GIS consulting and project services on a cost-reimbursable basis to King County agencies and to external customers. The hourly labor rates for 2011 are based on a tiered pricing structure, which is detailed in Appendix B. The Client Services Manager supervises the unit and initiates and coordinates service delivery, which is fulfilled by drawing on the specialized skills of staff throughout the KCGIS Center. In

2010, 20 different KCGIS Center staff members worked on at least one Client Services project. For additional details on the services provided by the Client Services Unit see Appendix B: KCGIS Center Services.

- **Matrix Staff Services** – The Matrix Staff Services Unit provides dedicated GIS staff support to specific King County work programs through an annual contractual agreement. For 2011 those agreements include staff allocated to five work programs in two departments (DNRP and DOT). Program managers are assigned to oversee each work program and these managers coordinate to draw support from a pool of KCGIS Center staff resources. Matrix Staff Services Unit personnel are generally assigned to a single work group and report to a specific program manager for most or all of their projects. However, the matrixed staffing strategy allows program managers to share the pooled resource to optimize response to project demands. Managers for three of the programs are employees of their respective divisions and are not funded as KCGIS Center staff. These programs include Wastewater Treatment, Water and Land Resources, and Road Services. Work programs in Parks and Recreation and Solid Waste are overseen by a program manager from the KCGIS Center. The KCGIS Center Manager is administrator of the Matrix Staff Services Unit. As such the KCGIS Center Manager is responsible for supplying and maintaining the matrix resource (namely the GIS staff). Specific duties of the administrator include establishing the technical and quality standards for the GIS services, ensuring matrix personnel have the necessary training and resources to perform quality work, and balancing staff allocations across the divisions to meet work plan requirements. The GIS program managers from DNRP, DOT, and the KCGIS Center have responsibility to develop and execute their respective work plans, and coordinate with the KCGIS Center Manager to obtain the appropriate GIS staff resources to meet their program objectives.
- Key challenges for the KCGIS Center include: ensuring the KCGIS enterprise infrastructure is robust and reliable; seeking constant improvement to the quality and completeness of the county’s GIS data; and contending with the county’s ongoing budget problems. As more agencies integrate GIS into their business workflows, interruptions or system performance issues with the enterprise GIS become less tolerable. Maintaining the confidence and trust of agencies using GIS is vital to the KCGIS Center’s success, core to our mission, and essential to maintaining a consolidated KCGIS program. Therefore the KCGIS Center is giving significant attention to continually improving its enterprise hardware and services. This coming year particular focus will be on improving the ability of the KCGIS Center to quickly and fully deploy newly acquired digital imagery. Data quality is also central to the success of the county’s GIS. Working closely with agencies on focused efforts to improve specific GIS data sets is a top priority for the KCGIS Center. Finally, the budget woes of the county have forced many agencies, including the KCGIS Center, to curtail their GIS programs. The KCGIS Center has lost 15 percent of its workforce over the last four budget cycles. Other agencies have been hit worse. To compensate for these losses there is an ever greater need for KCGIS program agencies to coordinate to ensure GIS services remain at a high level.
- The KCGIS Center is dependent on the direction given by the KCGIS Technical Committee and the engagement of its committee members. The Technical Committee is the best means for agencies to take collective action, set priorities, and guide the efforts of our limited resources. Members need to attend committee meetings, involve themselves in the activities of the committee, and lead efforts to organize and use GIS within their agencies. The success of the KCGIS program, both as a whole and within individual agencies, is closely tied to how well the KCGIS Technical Committee and its members carry out their role.

#### 4.1.2 Planned Project Activity and New Projects

Name	<b>Data Coordination Priorities</b>
Description	In 2010 the KCGIS Center began site visits with participating agencies to discuss data issues and related database topics. The number of these site visits was less

	<p>than expected, and they will continue in early 2011. Standing issues to discuss with each agency include:</p> <ul style="list-style-type: none"> <li>• Desktop and server migration for ArcGIS 10</li> <li>• Any remaining metadata lifecycle issues</li> <li>• Status of any proposed data layers and other data issues discovered during O&amp;M plan preparation</li> </ul> <p>These site visits will also provide a mechanism for feedback from the agency on the KCGIS Center’s performance on database and data issues.</p> <p>Another data coordination focus will be improving the GIS user’s experience when accessing cadastral and Assessor business information. This will expand on the current work KCA and the KCGIS Center perform in delivering updates to the SDW. Related to this will be coordination with KC-DOT Roads Survey to publish their survey data to the SDW.</p> <p>Other data coordination activities emphasized in 2011 include: Work with those KCGIS agencies, not represented by data in the SDW, to post agency data that would benefit users at the enterprise level; Maintain the metadata lifecycle project, and begin the metadata quality assessment effort via the ‘Metadata Report Card’; Develop guidelines and documentation for centralized database coded-value domains; Provide support of KCGIS priority initiative data projects as necessary; and Continue revision of database integrity and assessment tools to provide more timely reports to data stewards.</p>
Interdependencies	Coordination and scheduling with KCGIS agency data stewards and other key stakeholders (users, developers, and DBAs), as necessary.
Status	In progress.
Target	Ongoing through 2011.
Activity	<ul style="list-style-type: none"> <li>▪ KCGIS Center DBA and Data Coordinator set up schedule for site visits. Develop standing item agenda to be supplemented with agency-specific topics.</li> <li>▪ Set up specific coordination meetings for addressing Assessor data use enhancements. Build on existing work done for Client Services city clients. Implement LOOKUP_EXTR coded value domain implementation. Review status of parcel-related spatial and tabular views. Enhance description and appropriate use in Assessor business table metadata.</li> <li>▪ Implement metadata quality assessment workflow and provide reporting to Stewards.</li> <li>▪ Maintain current and implement new database integrity and assessment tools.</li> <li>▪ Work on new data set issues as determined by feedback from site visits, and as forwarded by the KCGIS Technical Committee.</li> </ul>

Name	<b>SQL Server 2008 Upgrade</b>
Description	Plan and implement upgrade of existing production and back up servers to SQL Server 2008 while maintaining regular business operations as much as possible. Evaluate SQL Server 2008's native spatial data type.

Interdependencies	ArcSDE and database applications, new server hardware implementation.
Status	In progress, test server installed
Target	Q2 2011
Activity	<ul style="list-style-type: none"> <li>▪ Test data migration and current functionality.</li> <li>▪ Determine methodology with input from steward agencies and application developers.</li> <li>▪ Install SQL Server 2008 on new servers and migrate production data and applications.</li> <li>▪ Explore new features, including new native spatial data type and spatial operations.</li> </ul>

Name	<b>Metadata Quality Assessment</b>
Description	During 2010 the metadata lifecycle was initiated, putting in place the workflow for continuous refresh of metadata with data postings. By the end of 2010 the majority of agencies were participating. There is sufficient progress to begin the subsequent phase: quality assessment of metadata. This project will build on a pilot project that evaluates the content of the metadata for completeness and errors.
Interdependencies	Migrating current lifecycle workflow and building QA workflow from ESRI 9.3 design to significantly changed 10.x design.
Status	Pilot testing completed. Full implementation not started.
Target	Q1 2011 – Testing of revised pilot Q2 2011 – Implementing for nightly posting
Activity	<ul style="list-style-type: none"> <li>▪ Review pilot project.</li> <li>▪ Revise and recompile pilot project code as necessary, particularly reporting component.</li> <li>▪ Test revised code.</li> <li>▪ Implement on night basis with weekly reporting.</li> </ul>

Name	<b>ArcGIS 10 Migration</b>
Description	Migration of King County GIS servers and desktops from version 9.3.x to version 10.x. This is a significant core software upgrade requiring a conservative approach and careful testing of core functionality and compatibility with existing scripting and custom extensions to maintain support for business operations.
Interdependencies	License server (ORCA), ArcSDE/SQL servers (GISSQLDW, GISPROD and other departments' servers), ArcGIS servers (CRAGS, TRVCRAGSDEV), ArcIMS servers and user desktops.

Status	In progress
Target	Q3 2010 – Q3 2011
Activity	<ul style="list-style-type: none"> <li>▪ Continue testing critical functionality for business operations of KCGIS agencies and users in ArcGIS 10 desktop test environments.</li> <li>▪ Complete post-install of ArcSDE 10 on test server environment. Test methods for creating and migrating databases and services.</li> <li>▪ Test current and new ArcSDE 10 functionality.</li> <li>▪ Advise and consult KCGIS steward agencies and developers with plan options and their associated impacts on business operations.</li> <li>▪ Determine a migration plan that best supports business continuity for stewards, developers and users. Engage agencies in creating and implementing the plan.</li> <li>▪ Migrate current KCGIS-dependent applications according to ESRI's changing support for development platforms and code base.</li> <li>▪ Keep current communications among KCGIS agencies and users around migration status, issues, and progress.</li> </ul>

### 4.1.3 Data Enhancement and Development

Name	<b>Water Features Update</b>
Description	<p>WTRCRS, WTRBDY, WTRBDY_WET, SAO_WETLAND, and TOPO_CATCHMENT are closely related hydrographic layers. Update to one often precipitates the review and maintenance of others. Historically, this has occurred but in an ad hoc, unstructured way. This project will improve the coordination between the maintenance of these datasets.</p> <p>Project components include:</p> <p>Updates to WTRCRS based on 2010 imagery.</p> <p>Updates to WTRBDY based on 2010 imagery.</p> <p>Conflation checks between WTRCRS and WTRBDY, as well as between WTRCRS and TOPO_CATCHMENT.</p> <p>Updates to WTRBDY_WET and SAO_WETLAND based on permit review data available from DDES. Ultimate goal is consolidation of wetland information into a single dataset that can then be checked for agreement with WTRBDY and WTRCRS.</p>
Interdependencies	Coordination between KCGIS Enterprise Operations and WLRD GIS. Access to KCGIS Client Services staff when not required for projects assigned to Client Services. Coordination, including data review, from WLRD and other agency workgroups with a high-dependency on this data.
Status	Started in late 4 <sup>th</sup> Quarter, 2010
Target	Q1 2011 – Complete WTRBDY and WTRCRS review.

	<p>Q1 2011 – Design workflow for creating new wetland data.</p> <p>Q2-Q3 2011 – Complete conflation checks including scripting for improving efficiency.</p>
Activity	<ul style="list-style-type: none"> <li>▪ Coordinate with DDES and KCA on new wetland data development.</li> <li>▪ Update datasets against 2010 imagery.</li> <li>▪ Perform conflation checks between datasets.</li> </ul>

Name	<b>Imagery Project Management</b>
Description	<p>Quality assessment of the upland portion of the 2010 i-TEN orthophoto project will continue into Q1 2011. In 2011 the county will sign and execute a contract with Pictometry International to acquire oblique and nadir (vertical) imagery. No custom orthoimagery will be acquired. This imagery will be acquired in late Spring. Planning for the 2012 orthoimagery project will begin in 2011. This will include working with the USGS and other possible partners to develop specifications and a schedule for a late Spring, 2012 acquisition. Improving the ground control database will also be a priority, potentially assisted by KC Roads Survey as well as other cities and agencies in establishing and maintaining control within their jurisdiction. During the Fall of 2011, the County and any partners will solicit bids for the 2012 project.</p>
Interdependencies	<p>Completion of 2010 i-TEN project. Execution and deliverables acceptance for 2011 Pictometry project. Coordination with the USGS and with other potential partners for 2012 project.</p>
Status	In progress.
Target	<p>Q1 2011 – Completion of i-TEN data acceptance.</p> <p>Q1 2011 – Signing of 2011 Pictometry contract amendment.</p> <p>Q2 2011 – Pictometry oblique image acquisition.</p> <p>Q3-Q4 2011 – Completion of Pictometry data acceptance.</p> <p>Q4 2011 – Bid and contract for 2012 project.</p>
Activity	<ul style="list-style-type: none"> <li>▪ Data acceptance (i-TEN, Pictometry).</li> <li>▪ Contract amendment completion (Pictometry).</li> <li>▪ Project planning for 2012 project.</li> <li>▪ Bid and contract completion for 2012 project.</li> </ul>

Name	<b>Impervious Surface Layer Update</b>
Description	<p>This project was begun in 2010 after final acceptance of 2009 color infrared imagery from Aerials Express. Spectral analysis of the data has created a bi-modal impervious/non-impervious dataset. This interpretation is significantly enhanced with supplemental vector data showing various impervious surfaces such as roads and building footprints. Manual cleanup of the data is then performed.</p>

Interdependencies	Available staff for primary analysis and data integration. Additional staff for cleanup.
Status	Approximately 25 percent of the County has been completed in 2010.
Target	Work will continue as time permits. Completion is scheduled for Q3 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Continue township-by-township analysis and cleanup.</li> <li>▪ Integrate completed tiles into county-wide mosaic.</li> <li>▪ Post mosaic to SDW and create and post all file-based tiled subsets to SDW.</li> <li>▪ Perform post-cleanup error analysis. Compare to pre-cleanup analysis. Update metadata.</li> <li>▪ Analyze 2010 color infrared imagery and compare to 2009 results to determine if any incremental updates are necessary.</li> </ul>

Name	<b>Elevation Layers Updates</b>
Description	Continue updates to master elevation database. Though a long-term goal will be to acquire the entire county with current LiDAR data, incremental updates will be made when local or project data is available.
Interdependencies	KCGIS Enterprise Operations staff availability
Status	As needed
Target	Ongoing through 2011 as data are available and time permits.
Activity	<ul style="list-style-type: none"> <li>▪ Evaluate new project data for inclusion into database.</li> <li>▪ Integrate data into 7500 foot storage datasets.</li> <li>▪ Produce updated township-range, zone, and keyregion products.</li> <li>▪ Update metadata and status map.</li> </ul>

#### 4.1.4 Application Enhancement and Development

Name	<b><i>PostRep</i> Rewrite</b>
Description	The <i>PostRep</i> control table design has been completed and views designed to allow backward compatibility to existing applications is ready for implementation. New <i>PostRep</i> features have been coded and implemented in the current version of <i>PostRep</i> . The new version of <i>PostRep</i> is scheduled to be completed by the end of the 2 <sup>nd</sup> quarter of 2011.
Interdependencies	StewardTool, SDS, ArcGIS Server, SQL Server
Status	In progress.
Target	2011

Activity	<ul style="list-style-type: none"> <li>▪ Create Sprint Backlog – details how the team will implement requirements for the next iteration.</li> <li>▪ Sprint – backlog is frozen, application implementation and testing.</li> <li>▪ Deployment of working iteration of software.</li> <li>▪ Return to backlog and start over.</li> </ul>
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Name	<b>Parcel Viewer 2</b>
Description	<p><i>Parcel Viewer 2.0</i> replaces the original <i>Parcel Viewer</i> application with current ArcGIS Server technology.</p> <p>This 2009 – 2010 update preserves all existing <i>Parcel Viewer</i> functionality while adding quite a few useful features including:</p> <p>Aerial photography, URL linking, more parcel information, drawing and markup tools, selection of multiple non-contiguous parcels, PDF export options, search by condo name, better looking and faster performing cartography.</p>
Interdependencies	ArcGIS Server (CRAGS), Web server (gismaps.kingcounty.gov), ArcSDE/SQL Server (GISSQLDW), KC WAN, KC Assessments Web services.
Status	Deployed as beta version.
Target	Q1 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Nov 2010: Over 40 testers from outside King County plus all KCGIS users and developers were invited to the first public beta test of <i>Parcel Viewer 2</i> and asked to provide feedback.</li> <li>▪ Dec 2010: All users of the classic <i>Parcel Viewer</i> website were invited to try <i>Parcel Viewer 2</i> and provide feedback.</li> <li>▪ Develop map output / print functionality.</li> <li>▪ Add ability to deselect individual parcels from a selected set.</li> <li>▪ Add last sale and sales price to data output.</li> </ul>

Name	<b>Address Search Web Service</b>
Description	<p>The KCGIS Center developed and hosts a Web service which provides a collection of database search and GIS functions. This service is available to programmers in a SOAP compliant format. The Web service makes it possible for applications on any server to easily access specific search and GIS functions on KCGIS servers in a secure manner. First deployed early in 2006, there are 19 functions as of November 2010 (same number as last three years). In 2009, the new E-911 addressing data (ADDRESS_POINT) became available, and a handful of address search functions will be updated and redeployed.</p>
Interdependencies	ArcSDE / SQL Server (GISSQLDW), KC WAN, Web server (www5.kingcounty.gov) and ArcIMS infrastructure.

Status	Planned
Target	Q3 2011
Activity	<ul style="list-style-type: none"> <li>▪ The main objective of this service is to tie an address to a parcel number. However, no parcel numbers are associated to the points in the E-911 data. Also, a certain percentage of the address points are located in ROWs or on the wrong parcel. This halted any efforts to change the data source for address searches in 2009.</li> <li>▪ In 2011, application developers will coordinate with the data steward and addressing workgroup to identify gaps between what an address search application needs and what the data provides, with the goal of updating the Web service to use ADDRESS_POINT.</li> </ul>

Name	<b>Systems Monitoring Application</b>
Description	A "dashboard" type Web-based interface to monitor KCGIS services and the resources on which they depend, the application will monitor ArcIMS, ArcSDE, and SQL Server availability, and alert support staff in the event of unplanned downtime or alert status. The application will be modular, allowing KCGIS to build custom reports on critical database objects and processes as well as network and system performance. These measures will aid in troubleshooting errors and performance issues, and in turn will inform capacity planning and future systems design.
Interdependencies	KCWAN, Web server.
Status	Planned.
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ This project has not yet begun and will need to be planned in its entirety.</li> <li>▪ Evaluate any solutions offered by KCIT as well as VMWare, Microsoft, ESRI and other vendors such as Geocortex (Latitude Geographics).</li> <li>▪ Identify what parameters can be monitored using these options and develop a requirements document to describe what must be custom developed in-house.</li> </ul>

Name	<b>Spatial Data Catalog Keyword Search Engine</b>
Description	<p>Users have several interfaces and tools to search for King County GIS data (both agency and enterprise data sets). These include the GIS Data Locator, the Spatial Data Catalog (SDC), LibTool, and the GIS Data Portal. Some of these access points are accessible to both internal and public users, though others are available to internal users only. As the GIS Data Portal has now become the primary access point for the public, enhanced search capabilities may be required there as the site grows. However, that would be outside the scope of this project.</p> <p>This project would enhance the capability of internal users to find GIS enterprise data, both current and historic. A search engine, based on the current GIS Data Locator, would be designed and deployed on the internal SDC node. One</p>

	component would allow keyword searches across the contents of the SDC control entries and metadata thematic keywords. A second component would allow searches of the historic data library.
Interdependencies	.NET programming capacity for front-end development, modeled on that used for the GIS Data Locator. Development of back-end database for SDC and metadata entries and a separate database for historic data.
Status	Backend database has been created for the historic data. Database for current SDW data has not yet been designed. Preliminary discussions about front-end design have occurred.
Target	Q1 2011 Completion of design and documentation of back-end databases. Q2 2011 Completion of front-end interfaces. Q3 2011 Deployment to internal node of SDC.
Activity	<ul style="list-style-type: none"> <li>▪ Review design of historic data database.</li> <li>▪ Finish design requirements for current SDW data database.</li> <li>▪ Coordinate with front-end designer for construction of interface.</li> <li>▪ Test application.</li> </ul>

Name	<b>StewardTool Update</b>
Description	New functionality for “autoposting” data sets via a set schedule, and migrating program to Visual Studio 2008.
Interdependencies	Depends on implementing next generation of the database control for PostRep.
Status	In preliminary design.
Target	Q2 2011
Activity	<ul style="list-style-type: none"> <li>▪ Implement new CONTROL database design to accommodate specification of new scheduling options.</li> <li>▪ Update stored procedures to handle back-end database updates.</li> <li>▪ Update StewardTool user interface to allow scheduling of weekly or monthly updates on any night of the week or month.</li> </ul>

#### 4.1.5 Hardware, Software, Database, and Licensing Changes

- Continued hardware updates planned for 2011 include virtualization of database servers supporting both GIS interactive Web applications and the GIS production environment, as well as the GIS license management server, and the GIS data library. Our plan is to virtualize all KCGIS Center servers, while maintaining the processor and memory resources required by each system. Our testing during 2010 has shown that all servers can be moved into the VMWare environment. This approach will significantly reduce our server footprint, while increasing our recoverability and scalability. The current plan for server virtualization in 2011 is summarized in the following table.

Existing Server Name	Type of Server	Replacement Approach	Target Physical Server(s)
ORCA	file and print	Virtualization	VMWare ESX Host #1 VMWare ESX Host #2 VMWare ESX Host #3 (all Dell PowerEdge R710)
GISDW	file, DFS root		
GISPROD	database		
GISSQLDW	database		
MAPPER1	application		
MAPPER2	application		
GISNAS2	Network attached storage		

- It is anticipated that all KCGIS Center server hardware will physically move to the Sabey Data Center in the fourth quarter of 2011. This will likely require a 24 hour shutdown of all KCGIS services during the transition.
- The KCGIS Center is planning an upgrade to SQL Server 2008. This upgrade will include an assessment of functionality of the new spatial data types added to SQL Server at this version.
- Planning and testing of AGS version 10.0 is in progress, with upgrade planned during 2011.
- OpenLM license monitoring software was in operation on ORCA throughout 2010, tracking all usage of the consolidated licenses and recording it in a dedicated database. Information from this database was used to generate summary-level and detailed reports of usage for all KCGIS agencies. These reports were distributed to KCGIS Technical Committee representatives on a quarterly basis. Information from the tracking database was also used to calculate costs per share of use for each type of consolidated license and, from those costs, to calculate shares of annual maintenance costs for each participating agency for use in future budget estimation.
- In 2011 desktop PC replacement in the KCGIS Center will be on an as-needed basis, in compliance with the CIO budget advisory and Council ordinance. Some older machines that are still functional may remain in service in order to maintain an adequate development/testing environment for GIS application developers..
- In 2010 desktop PC replacement in the KCGIS Center will be on an as-needed basis, in compliance with the CIO budget advisory and Council ordinance. Some older machines that are still functional may remain in service in order to maintain an adequate development/testing environment for GIS application developers.
- The KCGIS Center is currently in discussion with ESRI regarding an Enterprise License Agreement (ELA). An ELA would stabilize the cost of ESRI software licensing at a set annual rate for the three year period of the agreement, and would allow King County to fluctuate license counts as needed to meet business needs at no additional cost. If the proposed pricing and terms of the ELA prove favorable there will likely be a recommendation made to the Technical and Oversight committees to proceed with final negotiations on an ELA.

#### 4.1.6 Staffing Changes

- The KCGIS Center staffing model is developed in coordination with the KCGIS Oversight Committee. For 2011 the overall budgeted staff level is reduced from 28.00 FTE to 27.00. This reduction was achieved by eliminating a vacant position.
- **Matrix Staffing Services** – The FTE staffing allocation increases from 9.25 in 2010 to 10.00 in 2011 for a net change of plus 0.75. This change is based on additions of 0.50 FTE of matrix support for Road Services (from 1.50 to 2.00) and 0.25 FTE for Parks and Recreation (from 0.75

to 1.00). Wastewater Treatment (3.00), Water and Land Resources (3.00), and Solid Waste (1.00) remain at their 2010 levels of FTE staffing.

- **Client Services** – The FTE staffing allocation decreases by 1.25 to 4.90 for 2011. This change results from transferring 0.75 FTE to Matrix Staffing Services and a further decrease of 0.50 to meet the requirements of the three percent efficiency reduction mandated by the County Executive. Dedicated revenue from Wastewater Treatment, used to fund 1.0 TLT in Client Services in 2010, will continue through 2011.
- **Enterprise Services** – The FTE staffing allocation decreases by 0.50 to 12.10 for 2011. This change was necessary in order to lower KCGIS Center operations and maintenance rates to meet the required three percent efficiency reduction.

#### 4.1.7 Other Changes

- None.

## 4.2 Department of Assessments

### 4.2.1 Agency GIS Overview, Priorities, and Goals

- The mission of the department of Assessments is to serve the citizens of King County by providing fair, equitable and understandable property valuations, forming the basis for funding of public services. The Department of Assessments is responsible for discovering, listing and valuing all taxable real and personal property within King County for preparation of the tax roll. GIS is used in the department in support of the above stated mission.
- GIS within the Department of Assessments is used in valuing property, defending valuation methods and estimates, maintaining public records including maps, legal descriptions and taxing district boundaries, administering exemptions and calculating levy rates. GIS provides easy access to data that is valuable for performing Assessments business functions. GIS is used in many aspects of the Department's business functions including but not limited to:
  - *Property Appraisal* – Appraisers use GIS maps, applications and data when valuing property. GIS is used for data retrieval and analysis. In addition, GIS is used to update property characteristics.
  - *Map/Property Boundary Maintenance* – GIS is used for discovering and listing taxable real property within the County. Assessments is responsible, under RCW 84.40.160, for maintenance of property configurations within King County. GIS is being used to fill this responsibility. Over time, the old quarter section Mylar maps are being retired and being replaced by maps generated from GIS data. Numerous agencies and individuals both within and outside the County access GIS property boundaries maintained by Assessments. Digital versions of the quarter-section maps are available on the Web as PDF files.
  - *Exemptions* – Assessments administers a portion of The Open Space Act (Chapter 84.34 RCW), which provides for current use assessment of farm and agricultural land, timber land and other open space land. Once land is classified, taxes are based on the current use value of the land rather than its highest and best use. Assessments must maintain both current use value and market value on these properties. GIS provides analysis and mapping of characteristics unique to Current Use Exemption monitoring.
  - *Annexations/Levy* – GIS is used to produce maps and data for internal use specific to the Assessment calendar year. GIS is used to generate the taxing boundaries as well as lists of parcels to be changed. GIS data are generated for Washington State Department of Revenue for apportionment of utility valuations and the state levy.
  - *Appeals* – GIS data, analysis and maps are used as evidence and support for defense of valuation decisions.
  - *Miscellaneous Property Related Analysis/Public Information* – GIS is used for validation of proposed annexations, property search and information requests, Assessor maps, public notification of neighboring properties and other public agency requests.
- While Assessments will see a reduction in GIS mapping staff for 2011 there will likely be an increase emphasis on the appraiser user experience. With two mapping staff retiring, the group will prioritize the current seg/merge, plat and annexation activities. The internal RealProp application with ArcEngine components has become increasingly sophisticated for the user. The Engine technology that replaced MapObjects implements a more robust mapping/visualization component. In addition to programmer defined display and labeling, users can customize maps for their particular use. In addition, the user has access to much of the data in the King County Data Warehouse. For the more hard-core ArcView user, existing shapefile generating tools will be replaced by export functionality from ArcEngine. If licensing becomes available, appraisal staff will use RealProp in the field.

- ArcView will remain a mainstay for some appraisers. It provides better tools to analyze data as part of the revalue process. Integration of Pictometry within ArcView provides one stop shopping for appraisal review. Some Residential Appraisers will increase the use of Geostatistical Analyst to define appraisal neighborhoods however limited licensing will pose a challenge to this effort.
- Assessments will pursue grant funding to leverage existing and future priorities related to positional accuracy improvements, electronic permitting and alignment of the census data with the cadastral base.
- Assessments will continue to collaborate with Elections to review voter and levy district legal boundaries. Improved accuracy of the data is the first step towards addressing levy and voter related issues associated with district boundaries.
- Assessments is in the process of migrating to Windows 7. After this migration is complete, ArcGIS 10 will be installed for testing and to determine if existing tools will function properly.
- Assessments will continue to evaluate new technologies for replacement of the aging mainframe system. Integration of GIS technology continues to be a focus.
- GIS will be used to support reduced use of paper maps.
- Assessments will evaluate licensing options for ArcEngine for use by the entire department.

#### 4.2.2 Planned Project Activity and New Projects

Name	<b>Positional Accuracy Improvements</b>
Description	Redraw areas of the County where the positional accuracy is unacceptable.
Interdependencies	Staff availability and appraisal physical inspection schedule.
Status	In progress
Target	2011 and beyond
Activity	<ul style="list-style-type: none"> <li>▪ Research problem areas.</li> <li>▪ Determine correct data to be used for redraw.</li> <li>▪ Build exterior plat and quad boundaries as necessary.</li> <li>▪ Build and code interior data.</li> <li>▪ Move annotation to correspond to new line work.</li> <li>▪ Integrate into KCAM database.</li> </ul>

#### 4.2.3 Data Enhancement and Development

Name	<b>Taxing District Boundaries</b>
Description	Development of GIS layers for the individual taxing districts in King County.
Interdependencies	Staff availability and coordination with Elections GIS.
Status	In progress

Target	None
Activity	<ul style="list-style-type: none"> <li>▪ Data model design.</li> <li>▪ As a starting point, dissolve out district data from KCACODE (levy code) layer.</li> <li>▪ Compare results to district Mylars.</li> <li>▪ Review each district boundary discrepancy for compliance with district legal description.</li> <li>▪ Add historic boundaries as time allows.</li> <li>▪ Coordinate efforts with Elections GIS to reduce duplication of effort.</li> </ul>

#### 4.2.4 Application Enhancement and Development

Name	<b>Assessments Data Access Applications</b>
Description	Integrate custom ArcEngine component into RealProperty and Cml BulkUpdate applications and provide access to GIS out in the field.
Interdependencies	None
Status	In progress
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Refine applications.</li> </ul>

#### 4.2.5 Hardware, Software, Database, and Licensing Changes

- Need to license ArcEngine for internal applications.

#### 4.2.6 Staffing Changes

- Two mapping staff will retire at the end of 2010.

#### 4.2.7 Other Changes

- None anticipated.



## **4.3 Department of Development and Environmental Services**

### **4.3.1 Agency GIS Overview, Priorities, and Goals**

- The mission of the Department of Development and Environmental Services (DDES) is “to serve, educate and protect our community by shaping and implementing King County’s development and environmental regulations.” To carry out this mission the department is responsible for receipt and review of building and land use permits, inspection of building construction and land development, and for administration and enforcement of building, land use, fire, and environmental codes. DDES has jurisdiction in unincorporated King County and has approximately 118 employees organized into three divisions, and the Director’s Office. The three divisions are Administrative Services, Building Services, and Land Use Services.
- Core business functions of DDES supported by GIS include the following:
  - Permit Receipt (Intake) – GIS tools and data sets are essential to successfully conduct intake review and complete the permit application process. Site location, zoning, development conditions, critical areas and other land related factors are identified and confirmed. Permit viability is assessed, permit requirements determined, and permit routing initiated.
  - Permit Review – GIS tools are used in several sections of the department to support permit review. The Site Engineering and Planning Section uses them to generate a series of maps for each project under review. The Plan Review Services Section uses them to guide decisions on building requirements. The Current Planning Section uses them to determine development conditions, historic zoning, and planning requirements.
  - Inspection and Enforcement – GIS tools are used by the various inspection and enforcement sections of the department to determine inspection areas, project assignments and to balance inspection and case workloads.
  - Regulatory Review – The Land Use Division and Director’s Office use GIS tools to develop planning proposals for regulatory control. GIS techniques are also used in regulatory programs including the Critical Areas Ordinance, the Endangered Species Act, and the Growth Management Act.
  - Public Information – GIS maps, data, and applications are used extensively in the department for public information and education. Environmental and regulatory data are depicted using GIS techniques on maps and atlases, and in newsletters and bulletins. Property-based data are disseminated to the public via customized Internet applications.
- The IT Section is responsible for carrying out the GIS program plan for the department. The Section Manager is the IT Service Delivery Manager for DDES. The GIS, programming, technical support, network administration, and database administration staff report to the IT Section Manager. In order to reduce time needed to deliver department services, enhance permit review, and support decision-making, the IT Section provides the following GIS services to the staff, customers and stakeholders of DDES:
  - Geographic analysis presented in the form of maps, graphics, data files, and reports.
  - Development, integration, and maintenance of enterprise and agency geographic data sets.
  - Development and maintenance of customized end user applications.
  - Custom map production services.
  - Support of map data web services, and other data sharing processes to provide direct access to geographic data from the permit system.

- Requests for assistance from DDES staff come to the DDES Help Desk, or directly to GIS staff. Requests for new system features, or new data products require a formal request process that is routed through a change management process to coordinate feature requests with the Permit Integration project. The process allows the business units to direct the limited available staff time towards the most needed features.
- The Lead GIS Analyst works with the IT Service Delivery Manager to prioritize GIS tasks within the department, and coordinate GIS data development and maintenance with other agencies.
- The IS Section of DDES participates in the successful exchange of geographic data among many King County agencies. Planning and permitting data are provided to other agencies through participation in the KCGIS Spatial Data Warehouse (SDW). Property data from the Department of Assessments and environmental data from the Department of Natural Resources and Parks are acquired through the KCGIS SDW and direct data exchanges. DDES takes an active role in facilitating GIS data sharing with other King County agencies.
- DDES actively participates in the county-wide GIS program. The Lead GIS Analyst has vice-chaired and chaired the KCGIS Technical Committee in previous years, and participates on sub-groups of the KCGIS Technical Committee. DDES has assumed a proactive role in working with the KCGIS Center to help develop procedures and best practices for the coordination of GIS efforts in King County.
- Challenges for DDES GIS in 2011:
  - The economy is expected to keep permit levels low. Recent and pending annexations will reduce the impact of any future rebound in the housing market on permit levels. In 2011 DDES is transitioning to a smaller agency focused on rural land use regulation.
  - As part of the focus on rural land use regulation, DDES is scheduled to move into an office situated closer to its rural customer base midyear 2011.
  - Due to a second consecutive year of lay-offs in 2010, DDES GIS staff has been reduced to one remaining position. As a result, GIS services to DDES business units will be reduced in variety. Of particular concern is coverage for GIS server administration.
  - DDES is on target to complete the Permit Integration project in 2011. In order to support the completion of the Permit Integration project, a large portion of the GIS staff time available will be dedicated to the Permit Integration project.
- Opportunities for DDES GIS in 2011:
  - DDES benefits from a veteran Lead GIS Analyst with a long history of good working relationships with the business units, and solid understanding of the business of DDES.
  - The Permit Integration project that began at DDES in 2006 has planned for tight GIS integration from the onset. Completion of the project will remove the need for GIS processes that currently consume GIS staff time.
  - DDES has implemented a functional web-based GIS display and query application called GISMO Map Viewer which will allow us to discontinue the use of ArcView 3.x applications, alleviating the maintenance load of it and the shape files it requires.
  - To maximize the value of the one remaining GIS FTE, DDES is exploring the possibility of using the KCGIS Center to provide an FTE equivalent out of a variety of staff. In order to retain the benefit of the institutional knowledge of the existing Lead GIS Analyst, that position would be transferred to the KCGIS Center, with a significant portion of his time dedicated to DDES.

### 4.3.2 Planned Project Activity and New Projects

Name	<b>Permit Integration Project</b>
Description	<p>The Permit Integration Project (PI) is an effort to upgrade and integrate King County permitting processes. The PI is expected to integrate data between multiple King County agencies. DDES is the lead agency.</p> <p>PI will implement Accela Automation as the permitting program for DDES, as well as certain permitting functions in DPH, DOT, DES, and DNRP. PI will implement Accela GIS, an add-on feature to Accela Automation that allows permit records to query ArcSDE feature classes to populate data fields. The public portal and mobile device extensions to Accela Automation will be able to leverage Accela GIS as well.</p> <p>PI is expected to utilize the KCGIS Spatial Data Warehouse, as well as the ArcGIS Server supported by the KCGIS Center.</p>
Interdependencies	Continued support of PI as a KCGIS O&M task is critical to its success. Coordination with DOT, DNRP, and Public Health on PI.
Status	In progress.
Target	Q3 2011
Activity	<ul style="list-style-type: none"> <li>▪ Automate weekly production of a combined address parcel layer to meet Accela Automation's inflexible data requirements.</li> <li>▪ Accela Automation configuration.</li> <li>▪ Accela GIS configuration.</li> <li>▪ ArcGIS service configuration and tuning.</li> </ul>

Name	<b>Critical Area Monitoring Project</b>
Description	<p>This project intends to monitor the success of Critical Areas Enforcement in maintaining habitat health. Several monitoring catchments with significant development potential in 2005 (when the CAO was implemented), along with a few control catchments with no significant development potential remaining in 2005, will be monitored.</p> <p>This is a long term monitoring project. Completion of the historic data collection and design of the data framework will be completed in early 2010, and then the monitoring phase will begin.</p>
Interdependencies	This project is led by DNRP – WLR Division. DDES will have a decreased but ongoing role in this project.
Status	In progress.
Target	Long-term ongoing project.
Activity	<ul style="list-style-type: none"> <li>▪ Determine development impact of various permit types.</li> </ul>

Name	<b>Study of Unfilled Base2 &amp; Autoplot Replacement Functionality</b>
Description	Use of the Base2 and Autoplot ArcView 3.1 applications used by DDES will be discontinued due to loss of GIS staff. Users of these applications will be logged during January 2011. Users will be interviewed to determine what functions cannot be met through Automation, GISMO Map Viewer, iMap, or the Parcel Viewer replacement currently under development at KCGIS Center. Remaining functionality will be replaced by ArcMap and user training, depending on a verification of business need.
Interdependencies	KCGIS Center provides web-based GIS applications that will contribute to the replacement of these applications.
Status	In progress.
Target	Q1 2011
Activity	<ul style="list-style-type: none"> <li>▪ Log Users</li> <li>▪ Interview Users</li> <li>▪ Train Staff</li> </ul>

### 4.3.3 Data Enhancement and Development

Name	<b>Shoreline Management Program Update</b>
Description	New criteria were developed for Shoreline Management Designation. The resulting Shoreline Management Plan (SMP) was adopted by council in 2010. DDES systems will be updated to refer to a new layer and references to the existing SHORELINEMMP feature class.
Interdependencies	This effort is a collaboration between DNRP and DDES, with the lead taken by DNRP.
Status	Not started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Implement new Shoreline Management Designations in <i>GISMO</i>, <i>iMAP Sensitive Areas</i> map set, the <i>Districts Report</i> and other resources as required by DDES staff.</li> </ul>

Name	<b>GEO_PERMIT Update</b>
Description	With the release of <i>GISMO Map Viewer</i> DDES has a new featureclass GEO_PERMIT_AREA. This layer is a replacement for PERMPAR and represents a geographic extent for each permit in the permit system. There is a nightly process that copies updated attributes from the DDES data warehouse for any existing GEO_PERMIT feature, and creates a new GEO_PERMIT feature for all new permits

	created the previous day. This allows spatial search and query of DDES permits.
Interdependencies	This layer can be used by DNRP to update their CARS layer in lieu of the previous PERMPAR_AREA featureclass.
Status	In progress.
Target	Q1 2011
Activity	<ul style="list-style-type: none"> <li>▪ Update nightly procedure to ArcGIS 10.</li> <li>▪ Post GEO_PERMIT_AREA to KCGIS Spatial Data Warehouse for use by DNRP.</li> </ul>

Name	<b>Transfer of Density Rights (TDR)</b>
Description	The TDR program allows owners of rural property to designate portions of their property as perpetual open space in exchange for density credits that can be sold to urban property owners. DDES needs a streamlined process for keeping track of the open space designations and density credits. This is necessary for DDES to regulate the properties and ensure the open space designation is honored in the future. A new feature class is under development and needs to be finalized so it can be integrated into PI.
Interdependencies	This effort is a collaboration between DNRP, who issues the density credits, and DDES. The implementation schedule of PI drives the timeline for this project.
Status	On hold.
Target	2012
Activity	<ul style="list-style-type: none"> <li>▪ Finalize feature class design</li> <li>▪ Populate new feature class with existing data.</li> <li>▪ Implement update procedures with DNRP.</li> </ul>

#### 4.3.4 Application Enhancement and Development

Name	<b>Development Condition Spatial Search</b>
Description	Replace the existing tabular Development Condition Search Engine with an enhancement to the Districts Report, including linkage to full condition text on existing DDES Web page.
Interdependencies	KCGIS Center staff to modify Districts Report.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Complete Consolidation of Development Condition Data into new featureclass.</li> </ul>

	<ul style="list-style-type: none"><li>▪ Update Development Conditions LUT to provide linkage to existing Development Condition detailed information on DDES Web page.</li><li>▪ Post Consolidated Development Condition layer and LUT to KCGIS Spatial Data Warehouse.</li><li>▪ Remove separate Development Condition featureclasses from KCGIS Spatial Data Warehouse.</li><li>▪ Update Districts Report to query consolidated featureclass.</li></ul>
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#### **4.3.5 Hardware, Software, Database, and Licensing Changes**

- DDES desktops will be upgraded to Windows 7. Users with ArcGIS Desktop installations will be upgraded to ArcGIS10 by the end of the year.
- ArcGIS server will be upgraded to ArcGIS 10 with scheduling dependant on Accela Automation compatibility and the KCGIS interdependencies.
- The ArcGIS web and data servers, along with all DDES servers are scheduled to be virtualized and/or moved to the Sabey Data Center in anticipation of DDES' move to another location.
- As part of the Permit Integration Project the main permit data store will be moved from Informix to Oracle. This has a small impact on GIS systems, but is expected to provide more robust tools for data exchange.
- Implementation of Accela automation is expected to require the addition of DDES specific featureclasses to the KCGIS Spatial Data Warehouse.

#### **4.3.6 Staffing Changes**

- DDES started 2010 with two full-time permanent GIS position. One full-time permanent GIS position has been eliminated from the 2011 budget.
- To maximize the value of the one remaining GIS FTE, DDES is exploring the possibility of using the KCGIS Center to provide an FTE equivalent out of a variety of staff. In order to retain the benefit of the institutional knowledge of the existing Lead GIS Analyst, that position would be transferred to the KCGIS Center, with a significant portion of his time dedicated to DDES.

#### **4.3.7 Other Changes**

- No other changes are expected.

## **4.4 DES – Emergency Management Division, E-911 Program Office**

### **4.4.1 Agency GIS Overview, Priorities, and Goals**

- The mission of the Emergency Management Division, E-911 Program Office (E-911) is to provide leadership and high quality service to improve the safety of the public in King County. The E-911 Program Office is committed to providing public safety solutions and support to 12 Public Safety Answering Points (PSAPs) in King County. PSAP support includes technical, GIS, administrative, and financial funding from the 911 tax. The E-911 Program Office ensures continued effective operation of the E-911 System so that high quality 911 service is provided to the public, regardless of the technology used to call for help.
- The core E-911 GIS activities are to ensure that the GIS based XTrakker maps are working to display each and every 911 call that comes into the PSAP. That cell tower information coming in from seven different wireless carriers is kept up to date and integrated onto the mapping for display at the PSAPs. That Voice over Internet Protocol (VoIP) calls are visible on the map when a caller makes a 911 call. That address and street information are verified from all 39 city addressing authorities when changes, updates, additions and/or deletions are reported to the E-911 MSAG Coordinator. That verified addresses are appended to the address information in the E-911 AddressPoint Layer. To work in coordination with county and city GIS agencies to formulate an authoritative address layer that will be used by government, non-government and private agencies for address verification in King County. To make sure that up-to-date GIS data is uploaded on to the new XTrakker map application. To ensure that new telecommunications technologies introduced into the public sector to communicate with E-911 are geographically locatable on the XTrakker map application. To continue to work with MicroData GIS mapping vendor for support on software, hardware and data related to 911 and GIS. Finally, to ensure that call taker staff at PSAPs are trained on how to use the GIS based location identification software primarily the XTrakker map application.
- The E-911 GIS Mapping Administrator and the E-911 GIS Mapping Analyst work in coordination to provide support to 12 PSAPs of King County 24/7. GIS staff report directly to the E-911 Program Manager.
  - The E-911 GIS Mapping Administrator and the E-911 GIS Mapping Analyst will be required to keep current with updates to GIS layers that have been modified by the KCGIS Center, Transit, KCEGIS, and any other participating GIS agencies from which E-911 acquires GIS data. The E-911 GIS Mapping Administrator and the E-911 GIS Mapping Analyst will report any data discrepancies back to the providing agency when discovered by the E-911 program or PSAP staff. The E-911 GIS Mapping Administrator or the E-911 GIS Mapping Analyst will field locate residential, business, public, and other geographic entities reported to the MSAG Coordinator by an address authority or to meet a specific PSAP request for site or street verification. Primary duty of the E-911 GIS Mapping Analyst will be to site verify information reported to the MSAG Coordinator. GIS data will be collected and processed through the x9GIS software and updates will be transmitted to the PSAPs as well as to KCGIS and city GIS agencies working in conjunction with the E-911 Program Office.
- Both GIS professionals are responsible for maintenance and management of the GIS data used on the map displays as well as coordinating GIS data information with King County GIS Center staff, the TNET group, and city, county, state, 911 GIS offices. The E-911 GIS Mapping Administrator or the E-911 GIS Mapping Analyst are responsible for notifying PSAP and police agencies about data collection in their jurisdiction, responding to public requests for information about the address project, vendor requests for information and GIS data, and assisting in field data collection outside of the E-911 GPS Address project's scope of work. Furthermore, the GIS Mapping Administrator will be tasked with the responsibility to make sure mapping is functional and working at all 12 PSAPs. The E-911 GIS Mapping Analyst is also responsible for GPS field data collection and responding to public requests for information about the E-911 Address

project. Primarily the GIS Mapping Analyst will be in the field verifying address information sent to the MSAG Coordinator.

- E-911's core customer base is comprised of the 12 Public Safety Answering Points (PSAPs) that handle 911 emergency calls and route requests to appropriate public safety agency staff for response. PSAPs are located throughout King County serving regional populations and/or local areas confined by city boundaries.
- The GIS business strategy of the E-911 Program Office primarily supports the use of GIS applications and data to locate wireless, wireline and VoIP 911 distress calls. These wireless, wireline, and VoIP distress calls are displayed on the XTrakker map viewer software installed at each King County supported PSAP. XTrakker is a specialized GIS based application from MicroData GIS, designed for PSAP use to automatically display caller location and provide discrepancy reports. Each PSAP call taker and/or dispatcher phone is attached to an XTrakker map application that uses KCGIS data necessary to support accurate call location determination.
- The E-911 Program Office also distributes required GIS data to the PSAPs. The primary current location data source is the E-911\_ROADS layer that is a hybrid road layer generated from ST\_ADDRESS and TNET and the E-911 address point layer for use on the XTrakker map application at the PSAPs. The E-911 GIS Program processes KCGIS data using a MicroData ArcGIS based extension called X9GIS. X9GIS converts KCGIS data from the state plane coordinate system into geographic coordinates (latitude and longitude) and performs other data formatting required by XTrakker to locate wireless, wireline, and VOIP 911 calls. The X9GIS software is an extension onto ArcGIS 9.3. E-911 GIS also provides other data layers, such as coverage areas, cell tower locations, and dispatch zone boundaries. Individual PSAPs may also request custom data, such as specific site or building locations, or integration of local computer aided dispatch (CAD) data. These data are also processed by E-911 using X9GIS software. Once processed, E-911 distributes GIS data via 911-Net, a closed network providing secure access to each PSAP.
- Key strengths of the E-911 GIS program include a fully operational environment that has proven its ability to deliver highly accurate KCGIS data supported by an effective front end application to facilitate the work of PSAP call takers. Coordination by the E-911 Office and all 39 address authorities to report address information to the E-911 MSAG Coordinator. XTrakker software provides an effective data management and exception reporting tool for administration of E-911 GIS data. Staffing limitations in responding to all PSAP GIS data and support requests are mitigated by hiring GIS professional staff to help with GIS data development at the PSAPs.
- Opportunities include future coordination with the KCGIS Center to exchange GIS data. Coordination of site point data exchange through an authoritative address layer and updates between E-911 and KCGIS during and after the E-911 GPS Address project is complete. E-911 GIS is also in a good position to communicate key changes to county geography (new buildings) on a near-live basis to the rest of KCGIS.
- A key challenge is keeping up with new and changed address information in King County on a daily basis as it is submitted by the addressing authorities. In order to keep city and county address information current in King County, the E-911 Program Office GIS and MSAG coordinator process address information per request from any of the 39 addressing authorities as changes are submitted to E-911. E-911 continues to update the address point layer as address information is created, changed, or updated.
- The key long-term goal of the E-911 Program Office is to keep up to date with changes within the E-911 industry. A major component of the long-term goal is to keep mapping up-to-date at the PSAPs with the latest geographic changes which includes an x, y location of all addressed structures within King County. This mapping system is used to identify the location of wireless 911 callers on a map at the call answering positions. Currently caller locations are identified as a latitude/longitude location, and there is no association of the caller's location with an actual street address. It is becoming more important for caller locations to be associated with specific addresses. In order to accomplish the address association in the mapping system, the addresses

throughout King County must be GPS located. Wireless 911 distress calls to PSAPs have increased steadily over the last few years. GIS is an essential tool to help locate wireless 911 distress calls.

- E-911 GIS Program’s role within KCGIS is primarily as a data coordinator out to PSAP end users. E-911 GIS is also in a key position to notify KCGIS data maintainers of data update or accuracy enhancement needs and will coordinate the exchange of address information related to the E-911 GPS Address project.

#### 4.4.2 Planned Project Activity and New Projects

Name	<b>Pictometry Oblique Imagery Deployment</b>
Description	Pictometry oblique and orthogonal imagery runs as an extension on the E-911 phone maps that call takers and dispatchers use as an enhanced visual display to pinpoint the caller’s exact location. This project will coordinate distribution of Pictometry imagery to police, fire, medical, and emergency operations centers who request a copy of the imagery set.
Interdependencies	KCGIS Center.
Status	Active
Target	Bi-annual
Activity	<ul style="list-style-type: none"> <li>▪ Deploy, train and administer Pictometry data imagery set to all 12 PSAPs.</li> <li>▪ Coordinate distribution of Pictometry imagery to King County EMS and EOC agencies that request the data.</li> <li>▪ Train user agencies on the Pictometry image viewer.</li> </ul>

#### 4.4.3 Data Enhancement and Development

- No activity planned this year.

#### 4.4.4 Application Enhancement and Development

- No activity planned in this area.

#### 4.4.5 Hardware, Software, Database, and Licensing Changes

- Upgrade to MicroData x9GIS to match ESRI ArcGIS 10.0 version.

#### 4.4.6 Staffing Changes

- None.

#### 4.4.7 Other Changes

- None anticipated.



## **4.5 DES – Facilities Management Division**

### **4.5.1 Agency GIS Overview, Priorities, and Goals**

- Agency Mission – The mission of the Department of Executive Services, Facilities Management Division (FMD) is “to manage and operate the County’s capital assets by developing and maintaining cost conscious, sustainable, quality facilities and environments”. FMD builds, manages, and maintains the land, buildings, and other structures owned, leased, and operated by King County general government agencies.
- Facilities Management Division functions for which future GIS support is planned or envisioned include:
  - Managing County’s Real Estate Portfolio
  - Long-term Space Planning
  - Lease Management
  - Parks and General Government CIP Planning and Development
  - Permit Management
  - Facility Management – EPA, NOAH and NDPES planning and mapping and annexation implementation
- In 2011, FMD will continue to use the services of the KCGIS Center Client Services to make refinements to the Real Estate Portfolio Management System (REPMS) to enable that system to further improve management of the countywide real assets portfolio. The REPMS is a database application, designed and developed by Client Services staff in conjunction with professional real estate staff in several departments, that enables users to store and access data related to County real property assets. The system integrates with existing KCGIS tools and supports real estate acquisitions, surplus sales, leasing, and permit tracking. FMD continues to expect that the REPMS will over time provide the impetus for accelerated use of enterprise GIS resources by FMD and will result in additional GIS data layers maintained by the KCGIS Center.
- There is no organizational unit responsible for GIS functions within FMD. The FMD representative to the KCGIS Technical Committee provides some internal coordination. Agency staff GIS skills continue to be concentrated in a very small number of individuals. At present, therefore, GIS resource use is predominantly limited to services purchased from the KCGIS Center Client Services group, primarily in the form of mapping. The continuing long-term goal for FMD is for agency staff to become further trained and more proficient in using GIS data and software on their own.
- Although access to the KCGIS Data Warehouse via the County WAN is adequate, in the FMD’s Real Estate Services Section LAN staff support is external/contractual and minimal (about 0.5 FTE for 25+ staff). There is one GIS-dedicated PC in RES.
- FMD also has a high quality color office printer available in the Real Estate Services Section, which is capable of producing color 11x17 prints. The division also has large scale plotter capabilities in the Capital Planning Section, due to the need there for architectural renderings and other CAD drawings. However, there is no GIS data server in FMD.
- Although several staff in Real Estate Services are trained to use ArcView on the RES workstation, FMD as a whole has relatively few staff knowledgeable in the use of GIS tools and resources. If this situation can be improved, FMD may consider expanded licensing in the future.

#### 4.5.2 Planned Project Activity and New Projects

Name	<b>Real Estate Portfolio Management System (REPMS)</b>
Description	SQL Server database supporting real property asset acquisition, leasing, disposition, easements, and permit tracking. Data input and maintenance module is PC based desktop application. Reports Module is web-based, with standard reports and ad-hoc query capabilities.
Interdependencies	Continued availability of KCGIS Center Client Services staff for occasional system maintenance, as well as development of specialized reports.
Status	System implemented, small system enhancements made, and specialized reports developed. Some additional custom report development likely as system becomes more widely used.
Target	Complete custom reports development as required.
Activity	<ul style="list-style-type: none"> <li>▪ REPMS is expected to result in new data layers for the GIS data warehouse as use continues and becomes more widespread across participating agencies.</li> <li>▪ Ongoing Operations and Maintenance costs of the system will likely be covered by the RES operating budget for KCGIS Client Services support.</li> </ul>

#### 4.5.3 Data Enhancement and Development

Name	<b>REPMS Related Data Development</b>
Description	It is possible that property characteristics recorded and stored in the REPMS may result in additional data layers, since REPMS will hold data on all county property interests, including easements, leases, and permits. No fixed plans or timetable has been established for these additional data layers, however they will likely come about as REPMS use becomes more widespread.
Interdependencies	None.
Status	Ongoing
Target	2012 integration/coordination with ABT
Activity	<ul style="list-style-type: none"> <li>▪ Identify data layers for possible development based on use of REPMS database.</li> </ul>

#### 4.5.4 Application Enhancement and Development

Name	<b>REPMS Reports</b>
Description	Additional REPMS reports development is a likely application enhancement, but the nature of those reports is not known at this time. It is expected that system users will voice desires for report enhancements as the system receives additional and more widespread use across agencies.

Interdependencies	None.
Status	Not started
Target	2011
Activity	<ul style="list-style-type: none"><li>▪ Work with REPMS users to determine reporting needs.</li><li>▪ Contract with KCGIS Center for development of new reports.</li></ul>

#### **4.5.5 Hardware, Software, Database, and Licensing Changes**

- None anticipated.

#### **4.5.6 Staffing Changes**

- None anticipated.

#### **4.5.7 Other Changes**

- FMD anticipates that the Leasing and Surplus unit within Real Estate Services will make use of KCGIS Client Services staff in 2011/2012 to further define opportunities among surplus, or potential surplus, properties for the development of affordable housing.
- Other FMD staff will be introduced to GIS capabilities and uses.
- Refinement of ability to identify specific property interests to be transferred to annexing communities beyond Roads and Parks, including greenbelts, permits, easements and other property interests



## **4.6 DNRP – Wastewater Treatment Division**

### **4.6.1 Agency GIS Overview, Priorities, and Goals**

- WTD Background:
  - King County protects water quality and prevents water pollution by providing wastewater treatment to 17 cities and 18 local sewer utilities. The county's Wastewater Treatment Division (WTD) serves approximately 1.4 million people, including most urban areas of King County and parts of south Snohomish County and northeast Pierce County.
  - The mission of WTD is “to protect public health and enhance the environment by treating and reclaiming water, recycling solids and generating energy.”
  - The WTD GIS team assists in this mandate by developing, interpreting, displaying, maintaining and providing access to spatially oriented data. This service enhances and supports WTD project planning, design, and operation strategies.
- WTD GIS Team Organization:
  - The WTD GIS Team consists of three FTE GIS Specialists matrixed to WTD from the King County GIS Center and one TLT GIS Specialist on assignment from KCGIS Center Client Services. This arrangement allows for the administrative management of the analysts coming from the KCGIS Center Manager while day-to-day work-load management comes from the lead for the Engineering & Technical Resources Unit Group within WTD. The four specialists share responsibility for project support, cartography, and data maintenance with each specialist focusing in different areas including database administration and application development.
- The WTD GIS team provides the following services:
  - Cartography: for presentations, reports, and analyses.
  - Analysis: to answer questions regarding the wastewater system infrastructure, capacity, future needs, property, political boundaries, and population changes.
  - Data development, maintenance, and updates.
  - Database and geodatabase development and management.
  - Programming/Application Development: applications for individual, division, and county-wide use.
  - User support.
- WTD GIS Program Challenges:
  - A couple of the major capital projects from past years now require minimal GIS support. GIS work available for new WTD projects including a general database administrator role for the division, programming needs, Web applications, open source access, and other GIS related projects not yet identified will compensate for this loss of work.
  - WTD GIS team manages data sets that are relied on for making decisions within the Wastewater Treatment Division. Many other data sets exist or are being created that need administration. The GIS Team's expertise and institutional knowledge places them in a position to assume a database management role in the near future. A project is currently underway to evaluate the work programs and data that should be integrated with GIS data and managed by the WTD GIS group.
  - Training in Web and database development, cartography, and ArcGIS application development are prerequisites for the WTD GIS team in order for it to meet future goals.

- ESRI is no longer supporting ArcView 3.x. This is the GIS program that many WTD staff use to do basic GIS operations. These users will need updated training in ArcGIS 9.x or access to an ArcGIS Explorer depending on their needs. We are more than halfway through the conversion of ArcView 3.x users to ArcMap 9.x. On-going discussion for further conversion effort for staff.
- WTD GIS Cross Agency Issues – The WTD GIS team will:
  - Continue to require support from Enterprise GIS section of the KCGIS Center on ArcIMS and WTD's Intranet Data Access Application.
  - Continue to work with the Parks and Recreation, Water and Land Resources, and Solid Waste divisions within the Department of Natural Resources. WTD, Parks, WLRD, and Solid Waste share data on the DNRP server.
  - WTD is working with SPU in a combined effort to geographically define the flow inputs within the CSO basins.
  - Continue to work with Public Health to obtain and share septic system location information.
  - Work with local sewer agencies to acquire sewer service data, water line data (when appropriate), and storm line data (when appropriate). A new effort to collect updates from the local sewer agencies is currently underway.
- WTD GIS Strategic Initiatives
  - Cartography – The WTD GIS Team will continue working to expand and improve their current skills in cartographic science and art through the combined use of GIS software, digital illustration, graphic design, and publication tools. It is the group's goal to decrease or eliminate reliance on outside graphic design firms when a map or graphic is needed by developing the cartography and graphic skills including concept development, data collection, cartographic design, and cartographic production.
  - Analysis – Several tools have been developed that allow the casual user to create basic maps and do powerful data queries with relatively little training. The software and data are accessible but neither is being used to its fullest potential. The WTD GIS Team will educate WTD managers about GIS and teach casual users the abilities that they already have but of which they might not be aware. Access to these tools and data, coupled with the knowledge of their existence and usage, will not only save time in the acquisition of project related data but will also provide information to the decision-making process that might otherwise be left out.
  - DBA Role – Numerous scattered data sets used by WTD are not being efficiently utilized in conjunction with other available data. These data are financial, asset management, engineering, inspection, maintenance, and monitoring related. WTD is developing a systematic approach to its data maintenance, organization, and development with a single point of administration and a central RDBMS through which all of the division's data can be accessed and leveraged against other data. Since they have the data management skills, the WTD GIS Team will assume the DBA role for this data. The DBA plan will be written this year.
- WTD GIS and KCGIS Relations
  - Much of the data created for the WTD projects mentioned is posted to a county-wide data warehouse. This data is also provided on data disks which are sold to anyone wishing to use the data for their own needs or direct downloaded from King County GIS Data Portal site. To adequately support a breadth of application needs, the WTD GIS team creates data to meet high standards. In this way they not only support WTD, but also the county as a whole. The matrix management approach applied to the WTD analysts is effective in

that the analysts support WTD's mission while still supporting county-wide GIS efforts through cross-departmental support, data development, and by sitting on workgroups.

#### 4.6.2 Planned Project Activity and New Projects

Name	<b>Decennial Flow Monitoring</b>
Description	Develop and manage a geodatabase of all Flow Monitors capturing flow into King County's Conveyance. This data layer will provide support for Project Managers, Modelers, Field Crew and Data Analyst working within this project.
Interdependencies	Local Sewer Agencies
Status	85% complete
Target	December 2011
Activity	<ul style="list-style-type: none"> <li>▪ Manage all related data to flow monitoring.</li> <li>▪ Delineate Basins determined by meter locations and Local Line Updates.</li> <li>▪ Create a Data Management Plan associated which contains all Flow Monitoring Data.</li> <li>▪ Launch Web site access with Flow Monitoring Information.</li> </ul>

Name	<b>System Map Book</b>
Description	A hard copy map book of the King County sewer system, local sewer lines, and local jurisdictions. Relationship to other agencies conveyance and overall hydrology is the focus.
Interdependencies	Local Sewer Agencies
Status	Not started
Target	First quarter 2012
Activity	<ul style="list-style-type: none"> <li>▪ Extensive cartographic work and atlas production in addition to data QA/QC and stakeholder evaluations.</li> </ul>

Name	<b>Non-GIS Database Plan</b>
Description	Develop a plan to better manage all non-spatial, and currently unmanaged, WTD data into a framework that will allow better maintenance and more efficient use. This is WTD GIS planned DBA role.
Interdependencies	None.
Status	Not started

Target	August 2011
Activity	<ul style="list-style-type: none"> <li>▪ Research data that fits description above.</li> <li>▪ Develop plan.</li> <li>▪ Increased integration and leverage through GIS data is a goal.</li> </ul>

Name	<b>Property Inventory Management System Viewer</b>
Description	Develop a map based website for retrieving SharePoint managed property easements.
Interdependencies	Microsoft SharePoint
Status	Planning
Target	December 2011
Activity	<ul style="list-style-type: none"> <li>▪ Scan and catalog documents.</li> <li>▪ Create pilot webpage to present concept and capabilities.</li> <li>▪ Migrate documents to SharePoint.</li> <li>▪ Finalize webpage with SharePoint/ArcGIS Server link.</li> </ul>

### 4.6.3 Data Enhancement and Development

Name	<b>Site Plan Development</b>
Description	Create a data layer showing the wastewater facilities including building foot prints. This will assist the division in maintenance, disaster planning and other activities.
Interdependencies	None.
Status	10% complete.
Target	December 2011
Activity	<ul style="list-style-type: none"> <li>▪ Research orthophotos and parcel data layer to determine best data source.</li> <li>▪ Extract data.</li> <li>▪ Create site plan data layer.</li> </ul>

<b>Name</b>	<b>Sewerland Update</b>
Description	Sewerland was last updated in 2001. The 2011 update will consist of an intricate analysis of all changes which occurred in the WTD-Service area. The following features will be used to determine these changes. Decennial Flow Monitoring

	Basins, Local Sewer Line Data and 2011 Model Basins.
Interdependencies	None.
Status	0% complete
Target	December 2011
Activity	<ul style="list-style-type: none"> <li>▪ Identify all service area classification changes within swrInd.shp</li> <li>▪ Modify mdlbsn.shp to reflect new sewer flow areas/boundaries.</li> <li>▪ Create GDB for swrInd11.shp</li> </ul>

<b>Name</b>	<b>Waterlines Feature Class</b>
Description	Create a geodatabase of water supply lines in the WTD service area. Currently, King County does not have a comprehensive water supply data layer. This data layer will assist WTD staff during planning and construction and will aid in determining where water is available in case residents lose access to their primary water source during construction activities.
Interdependencies	County water agencies.
Status	25% complete
Target	December 2011
Activity	<ul style="list-style-type: none"> <li>▪ Contact local water service utilities.</li> <li>▪ Collect water supply line data layers.</li> <li>▪ Compile data into GIS format.</li> <li>▪ Create GDB.</li> <li>▪ Ongoing as data is acquired.</li> </ul>

<b>Name</b>	<b>Storm Water Feature Class</b>
Description	A geodatabase of all storm water collection systems within WTD properties. Currently King County is developing a comprehensive storm water collection dataset. This information will assist WTD staff in planning, upgrades and maintenance of King County's system.
Interdependencies	Local storm water agencies.
Status	40% complete.
Target	December 2011
Activity	<ul style="list-style-type: none"> <li>▪ Collect data.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Compile data.</li> <li>▪ Create GDB.</li> <li>▪ Storm Drain Systems Map Book.</li> </ul>
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Name	<b>Local Sewer Lines Update</b>
Description	A geodatabase of all local agencies' sewer facilities and local lines within the WTD Service Area. There is an ongoing effort to obtain the most up to date local sewer information as we proceed to enhance our systems capacity.
Interdependencies	Local sewer agencies
Status	80% complete
Target	May 2011
Activity	<ul style="list-style-type: none"> <li>▪ Contact local sewer agencies.</li> <li>▪ Compile data into GIS format.</li> <li>▪ Effort is ongoing as data are acquired.</li> </ul>

Name	<b>Geolocate WTD Facilities</b>
Description	Acquire GPS readings for all manholes, pump stations, regulator stations and other facilities within the WTD sewer system. This will enable the WTD GIS team to create a positionally accurate dataset to assist WTD staff in planning and maintenance of King County sewers.
Interdependencies	None.
Status	33% complete
Target	2011, dependent on intern availability
Activity	<ul style="list-style-type: none"> <li>▪ GPS facilities.</li> <li>▪ Conflate FIRS data to GPS information.</li> </ul>

Name	<b>Conveyance System Improvement (CSI) Database</b>
Description	CSI information and updates stored in a database; eventually accessed through the Web.
Interdependencies	None.
Status	50% complete.

Target	June 2011
Activity	<ul style="list-style-type: none"> <li>▪ Collect all CSI data into database.</li> <li>▪ Launch Web site access.</li> </ul>

Name	<b>CSO Basin Description</b>
Description	Implement the CSO basin description model developed in 2009 to describe the impervious and pervious flow inputs for all CSO basins defined by both King County and SPU.
Interdependencies	Seattle Public Utilities
Status	80% complete.
Target	First quarter 2011
Activity	<ul style="list-style-type: none"> <li>▪ Run model for all 38 basins resulting in basin descriptions.</li> </ul>

#### 4.6.4 Application Enhancement and Development

Name	<b>Intranet Data Access Application</b>
Description	Develop several intranet sites for WTD employees to access varied and disparate data sets in formats that will allow them to more efficiently fulfill their work goals. Data includes spatial and tabular, document and visual media, county and external. Data anticipated to be included: flow/flow monitors; rain/rain gauges; tidal; documents; as-builts; photos; GIS; environmental data; and planned and current capital and asset management projects. This project is a continuation of the CSO Data Portal effort launched in 2007.
Interdependencies	None.
Status	15% complete.
Target	Pilot site for CSO program delivered in 2007. Expanded needs assessment being conducted. Next section of the website to be deployed summer of 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Needs assessment – 40% complete.</li> <li>▪ Data research – 15% complete.</li> <li>▪ Flow management and CSI/AM/CIP pages in design – 20% complete.</li> </ul>

Name	<b>WTD Open Source Project and ESRI ArcGIS Server Web Application</b>
Description	Implement Web mapping technology using free open source software (FOSS) GIS product and ESRI. To develop working WTD intranet Web viewer showing WTD

	data (sewer line, manholes, flow meters/monitors etc.) for in-house staff.
Interdependencies	KCGIS Center
Status	45% complete.
Target	Demonstration project by first quarter 2011.
Activity	<ul style="list-style-type: none"><li>▪ Develop demonstration.</li><li>▪ Launch application.</li></ul>

#### **4.6.5 Hardware, Software, Database, and Licensing Changes**

- None anticipated but there is a need for good quality 11"x17" laser color printer.

#### **4.6.6 Staffing Changes**

- The WTD GIS Team consists of 3 FTE GIS Specialists matrixed to WTD from the King County GIS Center and 1 TLT GIS Specialist on assignment from the King County GIS Center's Client Services group. Depending upon fund availability, there are plans to hire 2-4 summer interns to continue GPS data collection of the WTD system. No staff changes anticipated in 2011.

#### **4.6.7 Other Changes**

- One current TLT GIS Specialist contract will be extended to April 2013.

## 4.7 DNRP – Water and Land Resources Division

### 4.7.1 Agency GIS Overview, Priorities, and Goals

- **WLR Mission:**

- Serve as stewards of safe and clean water resources, healthy habitats, and functioning landscapes throughout King County.
- Protect and enhance quality of life, public health, and public safety by managing our water and land “infrastructure” (farms, forests, shorelines and marine waters, rivers, lakes, streams, WRIAs and associated watersheds, drainage, groundwater systems throughout the region).
- Serve as technical experts on King County's regional environmental quality for defining and implementing strategies for resource protection.

- **WLR GIS Program Organization:**

WLR GIS program consists of three GIS analysts with a unique set up under the Department of Natural Resources and Parks (DNRP) GIS matrix management structure. These analysts are in the same work unit as DNRP/WLR GIS, Visual Communication & Web, working jointly with other technical experts to deliver services and products for WLR work programs, the DNRP Director's Office, and other department/division special programs. These three staff receive project assignments from DNRP/WLR GIS, Visual Communication & Web unit manager based on areas of expertise and project workloads.

- **WLR GIS Services**

GIS provides data, tools and analytical services to assist in policy analysis, planning and monitoring of the natural environment. WLR GIS staff create and manage integrated Web based GIS applications and other Web application tools for WLR programs. Multiple mandates include sustaining healthy watersheds, protecting public health, water and air quality, preserving open space, working farms and forests, ensuring adequate water for people and fish, and managing public drainage systems and protecting/restoring habitats. All data sets that are created and maintained by the following programs are available on the KCGIS Spatial Data Warehouse (PLIBRARY), and/or the DNRP Data Warehouse (DNRPLIB). WLR GIS also provides training and technical support to desktop users. Specific business functions include:

- **Rural and Regional Services** – GIS services for programs including WRIA/watershed support, groundwater management, Ecological Services, Noxious Weeds, Forestry/Agriculture, hazardous waste, acquisition, TDR, and basin stewardship.
- **River & Floodplain Management** – GIS data and analysis are used to predict and monitor flood hazard zones and provide basin-wide regional analysis.
- **Science & Technical Support** – Water quality and quantity, hydrologic assessment and analysis. Coordination with various data management and field activities to ensure efficient access to all relevant spatial data.
- **Stormwater Services** – GIS supports service delivery analysis, drainage investigation, and inspection services. Regulation, compliance, and NPDES permit compliance are also supported.
- **DNRP Director's Office** – GIS is used for analysis of some regional policies, such as Open Space, Forest, Water, Energy and Air Quality/Climate change.
- **WLR Division Director's Office** – GIS is used for analysis of policy and funding strategies work programs.

#### 4.7.2 Planned Project Activity and New Projects

Name	<b>Potential Cumulative Impacts Study</b>
Description	Analyze landcover changes in select basins and assess the effectiveness of CAO regulations.
Interdependencies	WLR Ecological Services and Watershed Assessment staff
Status	Start Q1 2011
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ Develop criteria for analysis.</li> <li>▪ Model impact of landcover changes at monitoring sites.</li> <li>▪ Analyze impacts and compare to hypotheses.</li> </ul>

Name	<b>Rivers Facilities Inventory Project</b>
Description	The River and Floodplain Management Section of WLRD needs an information system to manage flood protection facilities and properties and track changes over time. A flood protection facility includes levees and revetments.
Interdependencies	SQL Server database, ArcGIS scripts and tools, ArcGIS Server map services.
Status	In progress
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Generate database design.</li> <li>▪ Create web application for user input of data.</li> <li>▪ Create GIS tools to process GPS data.</li> </ul>

Name	<b>TDR Interactive Map Application</b>
Description	Create an interactive map application to view TDR receiving and sending sites.
Interdependencies	SQL Server database, ArcGIS scripts and tools, ArcGIS Server map services.
Status	In progress
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Generate database design.</li> <li>▪ Create GIS tools/scripts to generate GIS data layers.</li> <li>▪ Create interface for data entry.</li> </ul>

### 4.7.3 Data Enhancement and Development

Name	<b>King County Land Cover</b>
Description	Classify Landsat or similar satellite imagery for land cover, years 1996, 2002, and 2004.
Interdependencies	The KCGIS Center will acquire and warehouse data.
Status	In progress
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Preprocess imagery as required.</li> <li>▪ Apply land cover classification schema as defined by WLRD staff.</li> <li>▪ Accuracy assessment.</li> </ul>

Name	<b>WTRCRS – Maintenance</b>
Description	Data maintenance and new orthoimagery-based updates.
Interdependencies	In coordination with KCGIS Center and new orthoimagery.
Status	As needed.
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Update data as needed.</li> <li>▪ New orthoimagery-based updates to WTRCRS.</li> </ul>

Name	<b>WTRBDY –Maintenance</b>
Description	Data maintenance using new orthoimagery.
Interdependencies	KCGIS Center staff as time allows and WLR.
Status	In progress
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Update data using orthoimagery.</li> <li>▪ Coordinate with WTRCRS updates.</li> </ul>

#### 4.7.4 Application Enhancement and Development

Name	<b>ArcGIS Server and JavaScript API (JSAPI) Applications</b>
Description	Develop and maintain user-friendly ArcGIS Server and JSAPI applications. WLR maintains Rivers ArcGIS Server Web application hosted on the development server for internal use, and several JSAPI applications – Flood Photo Viewer app served on the Internet, Sandbag Distribution Location Viewer, Salmon Watcher Viewer and Snoqualmie Riparian Viewer. Other new JSAPI applications are in planning process or are in progress.
Interdependencies	None.
Status	In progress.
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Maintain existing applications.</li> <li>▪ Develop new applications as needed.</li> </ul>

Name	<b>ArcIMS Mapsets and ArcIMS .NET Connector Applications</b>
Description	The ongoing effort to maintain and improve iMAP, King County's ArcIMS Internet application, and other related ArcIMS applications. WLR Division maintains Groundwater Program, Hydrographic Information, Noxious Weed Location, Stormwater, SMP, and WRIA 9 Habitat Projects map sets on the public site and Greenprint map set on the internal site. The other ArcIMS applications maintained by WLR are Salmon Watcher, Groundwater, SMP and Snoqualmie Riparian Photo Viewer applications on the public site and PALS application on internal site.
Interdependencies	The KCGIS Center is leading this effort.
Status	In progress.
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Maintain existing iMAP map sets and applications.</li> </ul>

Name	<b>Parcel Alert Lookup System (PALS) Application</b>
Description	Maintain PALS application that will allow County employees to identify potential safety issues (alerts) at specific parcels based on encounters with, or reported concerns about residents, dogs, weapons/firearms, hazardous conditions, etc.
Interdependencies	None.
Status	In progress.
Target	Ongoing

Activity	▪ Maintain the application.
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**4.7.5 Hardware, Software, Database, and Licensing Changes**

- None planned.

**4.7.6 Staffing Changes**

- None. WLR GIS has 3.0 FTE in 2011.

**4.7.7 Other Changes**

- None planned.



## **4.8 DNRP – Parks and Recreation Division**

### **4.8.1 Agency GIS Overview, Priorities, and Goals**

- The mission of the Parks and Recreation Division is to operate and maintain the parks, trails, facilities, and programs which comprise the King County Park System. This encompasses four primary business functions: facility and site maintenance, recreation and event services, program development and land management, and collaborative partnerships. Facility and site maintenance includes maintaining a safe and inviting parks environment, managing open space, and preserving natural areas. Recreation and event services involves providing primary recreation services for residents in unincorporated areas of King County, as well as providing a world-class aquatic center and a year-round facility for hosting entertainment and educational events. Program development and land management takes in long-term planning for parks, open space, natural areas, and trails; development and coordination of the annual Capital Improvement Program and the six-year Capital Improvement Program; and property management oversight. Collaborative partnerships entail planning and implementing new recreational and educational programs and amenities in partnership with other public agencies and corporate sponsors.
- The Parks and Recreation Division is comprised of four sections: the Administrative & Financial Services Section, the Business Development & Partnerships Section, the Parks Resource Section, and the Recreation & Division Support Section. GIS support is provided to all of these units, as well as to the Division Director's Office, by an allocation of 1.0 FTE. This staffing allocation is shared by three GIS analysts, who are part of the professional GIS staff providing matrixed support to all DNRP divisions. The Parks GIS analysts are also affiliated with the KCGIS Center Client Services staff and Enterprise Services staff, which enables access to their specialized services and expertise when needed for Division projects. The Parks GIS analysts are supervised by the Parks and Recreation Division GIS Program Manager.
- The Parks and Recreation GIS Program supports the division's managers, staff, and programs with a full range of products and services. These include data development and maintenance, data interpretation and analysis, map design and production, application development and maintenance, Web-based mapping and information services, end-user training, and project consulting. The majority of products and services are provided on request to managers and staff within the division's administrative offices in Seattle. Requests are also received and processed for managers and staff working in outlying administrative offices or at individual parks. These include maps and reports used for diverse planning, management, and maintenance purposes.
- The Parks GIS program conducts its work in the context of two key cross-agency dependencies. The first of these concerns data maintenance. Although the products and services which this program provides often involve numerous data layers, Parks GIS is itself the steward of only a few of these. The accuracy and reliability of its products and services therefore depend upon consistent, timely maintenance of data layers by other County GIS programs. The second key dependency is that of access to the specialized skills and expertise of the KCGIS Center Client Services staff and Enterprise Services staff. Whenever the products and services of Parks GIS necessitate the use of advanced tools and techniques, it is essential for the program's GIS analysts to be able to consult with the staff of these two groups. Both Client Services and Enterprise Services are open, approachable, and very supportive of the needs of Parks GIS. The dependency in this case is one of availability of specific staff at specific times, due to the heavy demands which are placed upon the staff of both groups.
- The mission of the Parks and Recreation Division is relatively specialized compared to that of other County departments and agencies. As a result, the Parks GIS Program has a somewhat narrow focus and a limited role in the overall KCGIS enterprise. There is a moderate amount of interaction with the other DNRP divisions, but relatively little involvement with GIS programs in other departments. Parks GIS maintains a small number of enterprise data layers for which it has responsibility and interacts regularly with the GIS programs in the other divisions of DNRP. It also

is represented on the KCGIS Technical Committee and is actively involved in the initiatives and operations of that group.

#### 4.8.2 Planned Project Activity and New Projects

- None planned.

#### 4.8.3 Data Enhancement and Development

Name	<b>Parks Property Acquisition Funding History Database &amp; Data Entry Interface</b>
Description	Development and maintenance of a master database for information related to the funding of Parks property acquisitions, along with a data entry interface for use by Parks managers and staff to add new information or update existing records. These data will be used for planning and management purposes, to ensure that all development and operation of Parks properties is in full compliance with the restrictions, regulations, and requirements imposed by funding sources and other parties when properties are purchased, exchanged, transferred, or donated to the county. Information in this database will be linked to specific parcels of land by PINs to enable spatial analysis and mapping in support of Parks property planning and management.
Interdependencies	Availability of verifiable current and historic information on the funding of Parks property acquisitions which is detailed, accurate, and complete; Reliable operation and availability of the KCGIS Spatial Data Warehouse and the DNRP GIS data server.
Status	On hold, pending direction to proceed from Division management.
Target	2011 - End of 2nd Quarter - Initial design and development of the database and data entry interface.  2011 - End of 3rd Quarter - Complete development and deployment of the database and data entry interface. Subsequent populating of the database will be primarily performed by Parks managers and staff.
Activity	<ul style="list-style-type: none"> <li>▪ Design and develop the Property Acquisition Funding History Database, including fields for all specific data elements which have been identified as necessary.</li> <li>▪ Deploy the database and support Parks managers and staff in populating it with all available verifiable data covering current and historic property acquisitions.</li> <li>▪ Design and develop the data entry interface, addressing all identified functionality and ease-of-use requirements.</li> <li>▪ Deploy the data entry interface and provide all necessary training, user documentation, and technical support to users.</li> </ul>

#### 4.8.4 Application Enhancement and Development

Name	<b>TrailFinder (Trail Information and Mapping Application for Mobile Devices)</b>
Description	Development and deployment of a GIS-based mapping and information retrieval application for users of mobile devices who are interested in trails and trail-related facilities in King County. This application will employ the functionality of the ArcGIS

	Server API and ArcGIS Mobile to provide dynamic, high-quality information query and mapping capabilities for trail users. This project will be coordinated with other similar application projects being carried out by KCGIS Center staff.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse and ArcGIS Server software; Acquisition of ArcGIS Mobile deployment and/or runtime licenses for Parks staff; Availability of design and development assistance from KCGIS Center staff.
Status	On hold, pending direction to proceed from Division management.
Target	2011 - End of 2nd Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Design and develop the TrailFinder mobile GIS application, addressing all identified functionality and ease-of-use requirements.</li> <li>▪ Field test the new application using the Division's trail-related spatial and tabular data, as well as other enterprise data layers typically of interest to Parks managers and staff and to the general public.</li> <li>▪ Install the new application on individual mobile devices and provide all necessary training, user documentation, and technical support to users.</li> </ul>

#### **4.8.5 Hardware, Software, Database, and Licensing Changes**

- None planned.

#### **4.8.6 Staffing Changes**

- Matrix staff support was increased from 0.75 FTE in 2010 to 1.0 FTE for 2011.

#### **4.8.7 Other Changes**

- None planned.



## **4.9 DNRP – Solid Waste Division**

### **4.9.1 Agency GIS Overview, Priorities, and Goals**

- The mission of the Solid Waste Division is to provide transfer and disposal services for solid waste materials in King County, using innovative waste reduction and recycling services and programs to reduce the overall amount of material that must be managed. The Division serves residential and non-residential customers, as well as commercial disposal services. Solid Waste maintains nine closed landfills and the Cedar Hills Regional Landfill in Maple Valley, which is the only operational landfill within the County. The division also operates eight geographically dispersed transfer stations and two rural drop boxes. The primary goal of these activities is to conserve natural and renewable resources by providing customers with readily available services and by promoting public awareness of conservation, recycling, and the benefits of participation in the division's programs.
- The Solid Waste Division is comprised of five operational units: the Engineering Services Section, the Finance and Administration Section, the Operations Section, the Planning and Communications Section, and the Recycling and Environmental Services Section. GIS support is provided to all of these units, as well as to the Division Director's Office, by an allocation of 1.0 FTE. This staffing allocation is shared by two GIS analysts, who are part of the professional GIS staff providing matrixed support to all DNRP divisions. The Solid Waste GIS analysts are also affiliated with the KCGIS Center Client Services staff and Enterprise Services staff, which enables access to their specialized services and expertise when needed for division projects. The Solid Waste GIS analysts are supervised by the Solid Waste Division GIS Program Manager.
- The Solid Waste GIS Program supports the division's managers, staff, and programs with a full range of products and services. These include data development and maintenance, data interpretation and analysis, map design and production, application development and maintenance, Web-based mapping and information services, end-user training, and project consulting. The majority of products and services are provided on request to managers and staff of the division's administrative offices in Seattle. Requests are also handled to support the needs of managers and staff working at outlying division facilities, including the eight transfer stations and the Cedar Hills Regional Landfill. These include maps and reports used for a variety of planning, management, and maintenance purposes.
- The Solid Waste GIS program conducts its work in the context of two key cross-agency dependencies. The first of these concerns data maintenance. Although the products and services which this program provides often involve numerous data layers, Solid Waste GIS is itself the steward of only a few of these. The accuracy and reliability of its products and services therefore depend upon consistent, timely maintenance of data layers by other County GIS programs. The second key dependency is that of access to the specialized skills and expertise of the KCGIS Center Client Services staff and Enterprise Services staff. Whenever the products and services of Solid Waste GIS necessitate the use of advanced tools and techniques, it is essential for the program's GIS analysts to be able to consult with the staff of these two groups. Both Client Services and Enterprise Services are open, approachable, and very supportive of the needs of Solid Waste GIS. The dependency in this case is one of availability of specific staff at specific times, due to the heavy demands which are placed upon the staff of both groups.
- The Solid Waste GIS Program is relatively small compared to those of other County departments and agencies and, accordingly, focuses primarily on meeting the needs of division managers and staff. As a result, it has a somewhat limited role in the overall KCGIS enterprise. Solid Waste GIS has a moderate amount of interaction with the other DNRP divisions, but relatively little involvement with GIS programs in other departments. Solid Waste GIS maintains a small number of enterprise data layers for which it has responsibility and interacts regularly with the GIS

programs in the other divisions of DNRP. It also has a representative on the KCGIS Technical Committee and is actively involved in the initiatives and operations of that group.

#### 4.9.2 Planned Project Activity and New Projects

Name	<b>New Transfer Station Siting Analysis and Mapping</b>
Description	Identification, analysis, and mapping of potential candidate sites for proposed new transfer stations in various areas of King County, based on search criteria established by Division and project managers. This is a new phase of work for a project which was active during 2003 and 2004 but which has since been on hold. The Division's need for new and additional transfer station capacity continues to grow rapidly enough that renewed analysis of potential sites is expected to be necessary during 2011. As before, this process will be supported by site analysis and selection, as well as production of maps and reports for the sites chosen.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse, the DNRP GIS data server, and ArcGIS software.
Status	On hold, pending direction to proceed from division management.
Target	2012 – End of 4th Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Conduct site analysis and selection, based on criteria established by division and project managers.</li> <li>▪ Design and produce maps and reports illustrating and describing suitable candidate sites.</li> </ul>

#### 4.9.3 Data Enhancement and Development

Name	<b>Disaster Debris Planning Support</b>
Description	Acquisition, analysis, and mapping of data relevant to modeling using FEMA's HAZUS software for use in SWD disaster response planning. Results of this work will be used to identify: 1) Areas of high, medium, and low risk for large volumes of debris generation from earthquakes, flooding, windstorms, and other major disasters; 2) Suitable sites for temporary storage of disaster-generated debris; and 3) Availability of infrastructure (e.g., roads and bridges) in adequate post-disaster condition to be usable for transporting large volumes of debris to storage sites. Estimated volumes of debris to be expected in different types of areas resulting from various types of disasters will be calculated using HAZUS software from the Federal Emergency Management Agency.
Interdependencies	Availability of adequate, suitably-detailed data for: 1) Property, infrastructure, zoning, and related site-search criteria; 2) Risk levels for damage and debris generation; and 3) Structure type, size, age, materials, and density; Applicability of HAZUS modeling software to King County's complex urban and rural geography and to the types of disasters most likely to occur in this area; Reliable operation and availability of the KCGIS Spatial Data Warehouse, the DNRP GIS data server, and ArcGIS software.
Status	In progress.

Target	2011 – End of 2nd Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Complete modeling and analysis to verify which areas have the greatest anticipated risk of high-volume debris generation; Rerun search models as necessary to focus on identifying a primary group of potential temporary debris storage sites in and near these high-risk areas.</li> <li>▪ Estimate debris volumes likely to be generated for all high-risk areas modeled, based on all suitable available data for structure type, size, age, materials, and density, using FEMA's HAZUS software.</li> <li>▪ Establish capacity criteria for the primary group of potential temporary debris storage sites and evaluate whether this group of sites will be adequate and sufficient to handle the estimated volume of debris anticipated for these areas.</li> <li>▪ Conduct additional modeling and analysis as necessary to locate additional potential temporary debris storage sites to serve additional areas and provide overflow capacity for the primary sites.</li> <li>▪ Design and produce maps and reports illustrating and describing the potential sites which have been identified through these modeling and analysis activities.</li> <li>▪ Coordinate with SWD Planning &amp; Communications Section to incorporate results of this work into the division's updated Comprehensive Plan.</li> </ul>

#### 4.9.4 Application Enhancement and Development

Name	<b>Cedar Hills Landfill Complaint Tracking and Mapping</b>
Description	Development and deployment of an application for recording, tracking, and processing odor, noise, vibration, and bird complaints in areas adjacent to the Cedar Hills Landfill. A spatially-referenced complaint database will be designed and tested, along with a new data entry interface, to ensure consistent recording of complaints. A set of standard maps and reports will also be developed to display information by area, time period, and type of complaint. Additional project activities may include creating automated processes for custom map generation and for analysis of complaint data.
Interdependencies	Reliable operation and availability of the DNRP GIS data server and ArcGIS Server software; Availability of design and development assistance from KCGIS Center staff.
Status	On hold, pending direction to proceed from Division management.
Target	2011 – End of 2nd Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Complete definition of application and database requirements.</li> <li>▪ Design, test, refine, and deploy complaint data entry interface.</li> <li>▪ Design, test, refine, and populate complaint tracking database. Integrate legacy complaint records into this database.</li> <li>▪ Train operators on use of data entry interface and update procedures.</li> <li>▪ Develop set of standard maps and reports for data display and analysis.</li> </ul>

Name	<b>“What Do I Do With...?” Site Locator Application for Mobile Devices</b>
Description	Development and deployment of a GIS-based mapping and information retrieval application for users of mobile devices to locate household and business material reuse, recycling, exchange, and disposal sites. This application will employ the functionality of the ArcGIS Server API and ArcGIS Mobile to provide dynamic, high-quality information query and mapping capabilities. This project will be coordinated with other similar application projects being carried out by KCGIS Center staff.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse and ArcGIS Server software; Acquisition of ArcGIS Mobile deployment and/or runtime licenses for Solid Waste staff; Availability of design and development assistance from KCGIS Center staff.
Status	On hold, pending direction to proceed from Division management.
Target	2011 – End of 3rd Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Design and develop the "What do I do with...?" mobile GIS application, addressing all identified functionality and ease-of-use requirements.</li> <li>▪ Field test the new application using the division's current database of household and business material reuse, recycling, exchange, and disposal sites, as well as other enterprise data layers typically of interest to Solid Waste managers and staff and to the general public.</li> <li>▪ Install the new application on individual mobile devices and provide all necessary training, user documentation, and technical support to users.</li> </ul>

Name	<b>Transfer Station/Drop Box Locator</b>
Description	Development and deployment of a web-based mapping and information service for SWD-operated transfer stations and drop boxes. This application will employ the capabilities and functionality of the ArcGIS Server API to provide a responsive, easy-to-use tool for the general public to use in locating transfer stations and drop boxes and to get driving directions to these facilities. The application will also enable users to quickly access information about days and hours of operation, as well as details and restrictions concerning types and amounts of materials which are accepted at these sites.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse and ArcGIS Server 9.3 software; Availability of design and development assistance from KCGIS Center Enterprise Services staff.
Status	On hold, pending completion of other Web mapping applications being developed by Matrix Services staff.
Target	2011 – End of 4th Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Identify and prioritize the functional requirements for the application.</li> <li>▪ Design and develop the application in the ArcGIS Server API environment,</li> </ul>

	<p>addressing all identified functional requirements.</p> <ul style="list-style-type: none"> <li>▪ Test the application using the division's facility data, as well as other enterprise data layers typically of interest to the general public.</li> <li>▪ Install the application on the appropriate Web server and provide all necessary training and technical support to users.</li> </ul>
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Name	<b>Garage Sale/Yard Sale Listing and Locating Application</b>
Description	Development and deployment of a replacement for the existing Web-based mapping and information service for garage sales and yard sales. This application will employ the capabilities and functionality of the ArcGIS Server API to provide a responsive, easy-to-use tool for the general public to list their own garage sales and yard sales, as well as locate and get driving directions to other sales in their neighborhoods and throughout the county.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse and ArcGIS Server 9.3 software; Availability of design and development assistance from KCGIS Center Enterprise Services staff.
Status	On hold, pending completion of other Web mapping applications being developed by Matrix Services staff.
Target	2011 – End of 4th Quarter
Activity	<ul style="list-style-type: none"> <li>▪ Identify and prioritize the functional requirements for the application.</li> <li>▪ Design and develop the application in the ArcGIS Server API environment, addressing all identified functional requirements.</li> <li>▪ Test the application using the division's facility data, as well as other enterprise data layers typically of interest to the general public.</li> <li>▪ Install the application on the appropriate Web server and provide all necessary training and technical support to users.</li> </ul>

#### 4.9.5 Hardware, Software, Database, and Licensing Changes

- None planned.

#### 4.9.6 Staffing Changes

- None planned.

#### 4.9.7 Other Changes

- None planned.



## 4.10 Department of Public Health

### 4.10.1 Agency GIS Overview, Priorities, and Goals

- The mission of the Department of Public Health – Seattle and King County is to achieve and sustain healthy people and healthy communities throughout King County by providing public health services which promote health and prevent disease. Public Health – Seattle and King County provides direct services and education to the residents of King County in order to prevent health problems from starting, spreading, or progressing. Public Health helps the entire community, protecting and promoting the health of all residents.
- Currently the Department of Public Health does not have a coordinated GIS program, nor does it have any person with full-time GIS responsibilities. Several divisions within the department are using GIS in support of their business needs and provide GIS services to a broader community. Despite having knowledgeable people who can use GIS and can express department needs, the absence of a coordinated program presents a challenge to identify future needs and hinders the ability to develop best practices for GIS in the department. The majority of GIS related activity originally was concentrated within three divisions: Environmental Health (EH), Assessment, Policy Development and Evaluation (APDE), and Emergency Medical Services (EMS). Recently, HIV/AIDS and the TB program have been developing their GIS activities. The Preparedness division has been utilizing KCGIS for maps. Last year budget cuts, however had a negative effect on GIS activity in the Department, especially in EH, where the GIS program is currently in the state of hibernation due to reassignment of their leading GIS specialist. Overall, there are currently several employees who are using GIS on an almost every day basis (power users) and another several people who have ArcGIS or ArcView installed on their desktops. Most of the GIS licenses in APDE are now accessed through a pooled central server. In the past few years several attempts were made to bring a broader awareness and recognition of the importance of GIS in Public Health. Currently there are regular Health GIS Users meetings. In the meetings members give short presentations of their current work or recent map products and have the opportunity to share tips and tricks that can be utilized in everyday work.
- Listed below are the business functions within the department that use or plan to use GIS:
  - **Environmental Health (EH)** use to be among the most active GIS users in the department before the recent budget cuts, using GIS software and providing some GIS related service within EH and also the Public Health Department. EH had one power user who did much of the GIS related work. He was reassigned to a non-GIS position in 2010. Two other staff are trained and using GIS software more than once a week, and there are several interns and a couple of staff who have been using GIS software for various projects. GIS related information is also used extensively by most staff through the KCGIS Center Internet mapping sites (*iMAP* and *Parcel Viewer*). The division uses the KCGIS Spatial Data Warehouse to access geographic data. All new GIS activity is currently suspended.
  - Until recently **Assessment, Policy Development and Evaluation (APDE)** used GIS primarily for creating static thematic maps to display data on health events in King County and Washington State. APDE receives requests for these descriptive maps from other Public Health Department units that have no GIS capability of their own, from the community, research and health organizations, and the general public. Maps have been provided for successful grant applications. APDE also produces a number of reports each year that include thematic maps on topics such as the distribution of childhood asthma hospitalization rates by ZIP Code in King County. APDE also uses GIS to geocode health events for statistical analysis below the county level. One staff member is a GIS power user, and there are four additional ArcGIS trained users. One user utilizes Maptitude. The division is using the KCGIS Spatial Data Warehouse to access most geographic data. In 2011, APDE is likely to map American Community Survey (ACS) data, create maps for the Communities Count report, and continue work with housing foreclosure. APDE will

also be producing maps looking at the built environment and Healthy Eating, Active Living (HEAL) indicators as they relate to health for the Communities Putting Prevention to Work (CPPW) project. APDE will attempt to utilize the new features of ArcGIS 10 to automate mapping and create map books.

- **Emergency Medical Services (EMS)** is utilizing GIS capabilities to produce timely thematic maps for customers (fire departments and paramedic providers) as well as to perform quality control, data analyses, planning and research. GIS is widely used to model optimal Medic Unit location analysis for the King County. The requests for maps are generated by EMS staff, other units within Public Health, hospitals, research organizations and general public. Various annual and semi-annual reports with cartographic materials are published and distributed among all Seattle - King County fire departments, paramedic providers, County Council, and others. Currently one staff is a power GIS user. The division is using the KCGIS Spatial Data Warehouse to access geographic data.
- Public Health **Preparedness** works with KCGIS to produce maps of healthcare facilities (hospitals, long term care facilities), community organizations, pharmacies and healthcare vendors, as well as sites Public Health uses for alternate care facilities and mass dispensing that can be used for preparedness and response planning. Maps have also been produced with support from EH division during H1N1 response with clinic, pharmacy and dispensing locations. The requests for maps are primarily generated by Preparedness staff. There is currently one ArcGIS license.
- The division **HIV/STD/TB Program** has used GIS to produce thematic maps showing HIV, STD, TB and hepatitis rates by zip code. Maps were included in the HIV/AIDS Epidemiology Profile and the Intersecting Infections of Public Health Significance report. The Program utilizes GIS for mapping H1N1 cases, H1N1 cases in relation to school absenteeism, identifying geographic areas to target in the 2010 Seattle area National HIV Behavioral Surveillance (NHBS) study of heterosexual at increased risk, and monitoring recruitment for the survey. GIS is also used to map TB cases for program management purposes.

#### 4.10.2 Planned Project Activity and New Projects

Name	<b>EH – OnSite System AsBuilt Image Connection</b>
Description	Provides for accessing AsBuilt Images through <i>iMAP</i> interface.
Interdependencies	Envision data export. Layer creation, updates and maintenance. Connection to imaging software data system.
Status	Planning phase. List of parcels that currently have an OnSite Septic System is being prepared from various sources to provide a layer of parcels with OnSite Systems for sharing on <i>iMAP</i> . In addition the software is in place for a Web based method to access scanned AsBuilt images. However the method to make this work has not been realized and the process needs improvement.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Submitted a plan for organizing and maintaining data. Plan is awaiting resources to implement.</li> <li>▪ An upgrade to the existing image management system Acorde (now called Oracle Imaging and Process Management) was realized in late 2009. The ability to access all of the records is hampered by the fact that significant data was not</li> </ul>

	recorded at the time of scanning of old documents requiring each group of records to be opened individually to get the significant data such as parcel number or address. This is very time consuming process.
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Name	<b>APDE – Built Environment &amp; Healthy Eating, Active Living Indicators</b>
Description	Create maps and perform analyses looking at BE & HEAL indicators as they relate to health.
Interdependencies	Receipt of timely and accurate BE & HEAL data; definition of indicators; collaboration with CPPW grantees.
Status	Ongoing
Target	2011-12
Activity	<ul style="list-style-type: none"> <li>▪ Evaluation.</li> <li>▪ Equity.</li> </ul>

Name	<b>APDE – Foreclosure Mapping</b>
Description	Perform spatial analysis, looking for clusters of housing foreclosure.
Interdependencies	Receipt of timely and accurate foreclosure information, ability to link to Assessor database.
Status	Ongoing
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Evaluation of foreclosures.</li> <li>▪ Equity.</li> </ul>

Name	<b>APDE – Spatial Analysis of Health Data</b>
Description	Perform spatial analysis, looking for clusters of health events.
Interdependencies	Competing projects and resources; receipt of timely health data; education curve to clustering software; unit redesign and priorities may shift.
Status	Planning phase
Target	Ongoing
Activity	<ul style="list-style-type: none"> <li>▪ Planning.</li> </ul>

Name	<b>EMS – Emergency Medical Services Information and Mapping System (EMSIMS) Upgrade</b>
Description	EMSIMS allows evaluation and planning of existing and potential paramedic unit locations.
Interdependencies	Internal EMS process. Potentially TNET.
Status	Planning phase.
Target	2011
Activity	<ul style="list-style-type: none"><li>▪ Evaluation of existing EMSIMS version.</li><li>▪ Updating existing road network within the model to reflect new changes.</li></ul>

#### **4.10.3 Data Enhancement and Development**

- None planned.

#### **4.10.4 Application Enhancement and Development**

- None planned.

#### **4.10.5 Hardware, Software, Database, and Licensing Changes**

- Currently the department has the following licenses: ArcGIS ArcView Concurrent – 2 (pooled), ArcGIS ArcView Single Use – 8; ArcPad Application Builder – 1, ArcView 3.X – 4. Maptitude – 1.
- Considering moving to floating ArcGIS licenses and using KCGIS consolidated license server.

#### **4.10.6 Staffing Changes**

- Loss of EH “GIS position”.
- Several new ArcGIS trained staff (via beginning ArcView).

#### **4.10.7 Other Changes**

- None planned.

## 4.11 DOT – Road Services Division

### 4.11.1 Agency GIS Overview, Priorities, and Goals

- The Road Services Division (RSD) operates the county public road system. Functions include designing, building, and maintaining publicly owned roads, bridges and pathways in unincorporated areas of King County. The division strives to make the county's transportation system safe and efficient for all uses and modes of travel. Road Services' GIS activities support this mission in the areas of planning, engineering, construction, maintenance, emergency response, and traffic services.
- The scope of services for RSD continues to increase through the availability of RSD business data in applications and SDE. Two additional public facing websites and one major application overhaul using GIS Web mapping technology were deployed in 2010 bringing RSD web mapping applications to a total of five. Functionality from the Road Alert site was incorporated into the My Commute site -- the result provides road closures, conditions, and near-real-time images from all King County traffic cameras. The two new sites are Average Daily Traffic Counts (ADT), which provides traffic count information at various intersections; and the Bicycling Guidemap, which is an online raster version of the print map. The RSD enterprise geodatabase continues to grow with new feature classes being developed or migrated to SDE. Roads' replicated TNET, which synchronizes Roads edits nightly with the TNET Master database, continues to synch changes as many improvements are made to the TNET data regularly. ArcGIS usage has grown to more than 50 desktop installations making RSD one of the top users of ArcGIS in King County.
- A major project under the acronym RCAMM (Roads Comprehensive Asset and Maintenance Management) is slated to finalize contract negotiations with the successful vendor by the end of 2010. When implemented, RCAMM will have heavy dependencies on GIS data as the foundation for RSD's asset inventory. Development and migration of the asset inventory into the RSD enterprise geodatabase is the GIS Team's highest priority for 2010 and 2011.
- In 2010 a proposal went forward to have a consolidated GIS Team and Program to build and maintain asset inventories, geospatial technology infrastructure and provide RSD enterprise-wide geospatial services. By December of 2010 the RSD GIS Team was actualized with a GIS Manager, GIS Master, GIS Senior, GIS Journey and GIS Entry level positions transferred and/or filled. Additionally, 0.5 FTE was added to make 1.5 FTE of matrix resources from the King County GIS Center. Matrix resources will increase to 2 FTEs in 2011.
- RSD GIS Team core services defined:
  - **Roads Enterprise GIS Program Management**

GIS work program oversight, coordination and resource management of the GIS Team. Enterprise GIS infrastructure services coordination - the technology components of the information infrastructure such as server and desktop hardware requirements, databases and commercial-off-the-shelf products (COTS). Provide management of RSD GIS training and business outreach.
  - **Coordinate GIS Data Development and Maintenance**

Design and implement geodatabase structure, metadata, and data management procedures for Roads GIS enterprise data resources.
  - **GIS Applications**

Develop business critical and end-user applications for data management, analysis, mapping and visualization. These services include all web mapping applications, GIS data entry and back-office data processing and integration applications.

- The RSD GIS Team will continue to have cross-agency dependencies on the KCGIS Center for technical expertise provided by matrix resources as well as the newly formed DOT IT in 2011 for database and server infrastructure services.
- Expertise in transportation and specific RSD programs and business systems enable the RSD staff in Administration, Traffic Engineering, Maintenance, Engineering Services (including Survey Services), and CIP & Planning Sections to make use of GIS products and applications specific to RSD business. Listed below are some of the business functions within the Road Services Division that rely on geographic information.

**ADA Ramps Retrofit Program** – GIS is used to map the location and condition of sidewalk ramps for compliance with American with Disabilities Act federal law. The program heavily relies on GIS data and software to organize and report progress to the Executive and Management teams.

**Capital Improvement Program (CIP)** – Identifies, programs, roadway projects, bridge projects, intersections and traffic flow improvements, including intelligent transportation systems. Projects are mapped, reported, and analyzed using GIS.

**Concurrency Management Program** – The King County Council adopted a Transportation Concurrency Management requirement in Ordinance 11617, effective January 9, 1995, and revised under Ordinance 14375, effective June 28, 2002. The ordinance establishes a concurrency management system that assures adequate transportation facilities are available to meet the requirements of new development in King County. GIS is used to depict the annually updated levels of service and monitored corridors adopted by Council.

**Cultural Resources Protection** – Laws at the federal, state and local level require agencies such as the RSD to consider impacts of their projects on significant cultural resources. Furthermore, discovery of cultural resources during construction can lead to schedule and budget overruns. For these reasons, the RSD and the Historic Preservation Program (HPP) are developing a GIS planning tool that will increase King County's ability to efficiently manage and protect archaeological and other cultural resources. The planning tool includes the collection and maintenance of data housed in a digital library, and an archaeological sensitivity model created and expressed in GIS.

**Emergency Preparedness and Response** – Prepare for, and respond to, natural and man-made disaster events affecting the safety and closure of bridges and roadways. Response work includes snow and ice removal, removal of downed trees, landslide cleanup, flood response activities, and emergency road repair. Issues related to such events are reported and illustrated using GIS.

**Engineering Technical Support Services** – In-house services that support the RSD's CIP include, but are not limited to, field surveying using GPS, materials lab analysis, computer aided drafting design and mapping, and record management and archival support.

**Environmental Compliance** – The GIS data, tools, and applications necessary for the RSD to achieve environmental compliance require constant update and evaluation by staff with technical expertise in roadway construction, maintenance, and engineering. GIS is a critical tool in complying with federal, state, and local environmental laws, regulations and policies. The federal Endangered Species Act, as well as the Clean Water Act, requires detailed geographic data regarding waterways habitat and storm water. Compliance with other federal environmental regulations, such as Army Corps of Engineers permit requirements, is greatly enhanced with accurate GIS data and applications. At the state level, fish and wildlife code and water quality laws necessitate accurate geographic data in terms of roadways, fish habitat, and storm water. Adherence to the state Growth Management Act is also more easily accomplished with accurate geographic environmental data. King County codes such as the Sensitive Areas Ordinance also require the RSD to use and update accurate GIS information and applications.

**GASB34 Annual Report** – GIS supports the Road Services Unit to evaluate the newly acquired right-of-ways/roads for this federally mandated annual report.

**Inter-jurisdictional Service Contracts** – The Road Services Division provides a significant level of contract service to eleven cities that have incorporated since 1990, or expanded significantly through annexation. The division also has valued contractual relationships with many additional cities. Services provided by contract include maintenance, engineering, environmental, and transportation planning services.

**Road and Bridge Maintenance Operations** – Provides regular ongoing maintenance, operations, and repair activities to ensure a safe, quality roadway system in unincorporated King County. GIS tools are used to track facility inventories that are maintained and managed using the division’s Maintenance Management Systems (MMS). An annual King County Bridge Report is required by King County ordinance. The report provides a countywide bridge map and performs an analysis of structurally deficient and functionally obsolete bridges.

**Road Improvement District (RID) Program** – Boundaries are mapped and defined for RID areas for ordinance submittals to the King County Council.

**Road Vacations** – Boundaries for road vacation areas are mapped and legally defined for ordinance submittals to the King County Council. All ordinances are accompanied with a map.

**Roadlog Program** – Inventorying and documenting new roads, maintaining the WSDOT Mobility database and an annual Road Index Map Book (as required by King County ordinance and RCW) is submitted to the County Road Administration Board (CRAB).

**Traffic Operations** – Includes the collection and analysis of traffic count and accident data; operation of traffic control systems; design, inventory tracking, installation and maintenance of safety improvements including signals and other traffic control equipment (traffic cameras), guardrails, signs, and pavement markings; traffic impact review; and identification and implementation of neighborhood safety improvements.

**Transportation Planning** – The Transportation Needs Report (TNR), which represents the transportation improvement projects necessary for the next 20 years, is being revised along with the method used to prioritize projects for funding in the CIP. GIS is being used as a primary tool to aggregate different types of transportation projects to common corridors. A corridor approach to programming diverse CIP projects will lead to efficiencies to program planning, design, mitigation and construction.

#### 4.11.2 Planned Project Activity and New Projects

The following projects named with **Asset Inventory Development** are one of several projects aimed at migrating legacy data management systems to the Roads Enterprise GIS. RSD needs to spatially reference various required data elements in a consistent, reliable, and accessible manner to meet operational requirements. These data elements consist of assets and events that occur along the roadway (e.g. roads and their condition, signs, drainage, etc).

Name	<b>Asset Inventory Development – NPDES Data Migration</b>
Description	The National Pollutant Discharge Elimination System (NPDES) data project will migrate the available GIS data to a Roads storm water database that will then be published into a King County central storm water database with other contributing agencies. The data collection process, upload to GIS, and delivery to a work order system will require database development and application development work.
Interdependencies	Resource availability within RSD.
Status	In progress.
Target	2010/2011

Activity	<ul style="list-style-type: none"> <li>Complete the development of scope, requirements and data design for the NPDES Roads database and supporting applications.</li> </ul>
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Name	<b>Asset Inventory Development – Roadlog Conflation</b>
Description	This project will consist of designing the appropriate data model to conflate and maintain the Roadlog feature representation while providing the necessary linkages to the WSDOT Mobility database maintained internally. The Mobility database contains valuable RSD asset information that will become accessible through GIS with this project.
Interdependencies	Resource availability within RSD.
Status	Not started.
Target	2011.
Activity	<ul style="list-style-type: none"> <li>Develop scope, requirements and data design for Roadlog database and supporting applications.</li> </ul>

Name	<b>Asset Inventory Development – Signals and Flashers</b>
Description	Signals and flasher information are maintained via a Signal Log application developed in MS Access. This project will entail migration of the Signal Log database to a spatially enabled database (SDE) and replace the mobile data entry application.
Interdependencies	Resource availability within RSD.
Status	Not started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>Develop scope, requirements and data design for sign database and supporting applications.</li> </ul>

Name	<b>Asset Inventory Development – TCI Sign Application Replacement</b>
Description	The TCI application provides the location and work order information for signs. Information is currently stored in a mainframe database and delivered to field staff with MS Access. Updates are synchronized with a mainframe database once field staff return to the office. This project will entail migration of the TCI database to a spatially enabled database (SDE) and replace the mobile data entry application.
Interdependencies	Resource availability within RSD.
Status	Started.

Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Develop scope, requirements and data design for sign database and supporting applications.</li> <li>▪ Conflation from the legacy mainframe system to GIS has begun and is targeted for completion by the end of January 2011.</li> </ul>

Name	<b>Automated Vehicle Location (AVL)</b>
Description	A computer-based vehicle tracking system for RSD's rolling stock, providing actual real-time position of each vehicle equipped with proper communication and GPS hardware.
Interdependencies	Support from KCIT and DOT Fleet for various requirements.
Status	Pilot completed. Ongoing needs assessment is in progress.
Target	2010/2011
Activity	<ul style="list-style-type: none"> <li>▪ The project has not been extended to include more hardware for the remaining fleet. Enhancements to the Compass Com Server database is planned to leverage the data in a more efficient way.</li> </ul>

Name	<b>Bike Mapping Web Map</b>
Description	Provide bike facility data through an interactive Web map as an alternate source to the printed map and the pdf viewer application.
Interdependencies	Maintenance of the bike facility data and coordination with the participating cities in King County.
Status	Started.
Target	February 2011
Activity	<ul style="list-style-type: none"> <li>▪ Requirements and design developed.</li> </ul>

Name	<b>CIP Site Incorporation of Web Map</b>
Description	The CIP website describes projects and their status. Each project page contains a map displaying the project vicinity. Instead of creating static maps, incorporating a small Web map displaying the project location would enhance the work flow.
Interdependencies	Availability of KCGIS application development resources.
Status	Not started.

Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Develop scope and requirements.</li> </ul>

### 4.11.3 Data Enhancement and Development

Name	<b>D3 Sign Inventory</b>
Description	D3 signs are street name signs that are required to be replaced as per the Manual on Uniform Traffic Control Devices (MUTCD) mandate for font and reflectivity requirements. To support the replacement program the locations of these signs will be collected and used to support the work order process of manufacturing each sign.
Interdependencies	None.
Status	Started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Collect sign locations and digital images, load into RSD enterprise geodatabase.</li> </ul>

Name	<b>TNET Centerline Improvements</b>
Description	RSD has assumed responsibility for maintaining the road centerline geography in unincorporated King County with RSD's own replicated TNET and actively participates in the TNET consortium.
Interdependencies	Availability of TNET geodatabase for editing.
Status	In progress.
Target	This is a long-term improvement program. Major improvements to unincorporated areas of TNET occurred during 2008. On-going maintenance will continue throughout 2010 and 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Creating and updating the centerlines for unincorporated King County with TNET extension using the best available aerial photography.</li> </ul>

Name	<b>RSD GIS Data Conflation</b>
Description	RSD GIS data need to be conflated to reference one linear network (TNET).
Interdependencies	TNET geodatabase fully integrated and functioning with consortium's master geodatabase.
Status	In progress.

Target	2011
Activity	<ul style="list-style-type: none"> <li>Develop methods for conflation to new data design.</li> </ul>

Name	<b>TNET Architecture Redesign</b>
Description	The TNET architecture needs to be updated and redesigned to provide a better, more supportable model.
Interdependencies	The TNET consortium will need to buy off on the new design and will not be implemented until a new TNET Editor has been developed to support data updates.
Status	In progress.
Target	First quarter 2011
Activity	<ul style="list-style-type: none"> <li>Initial requirements are being developed.</li> </ul>

#### 4.11.4 Application Enhancement and Development

Name	<b>Data Management Routines</b>
Description	As data are conflated to TNET, automated routines for data publication, data quality and integrity checks need to be developed. An automated feature class generator needs to be implemented to support end users.
Interdependencies	Data are migrated to a geodatabase referencing TNET.
Status	In progress.
Target	Ongoing.
Activity	<ul style="list-style-type: none"> <li>Automated nightly routines have been developed to publish RSD GIS data to the Roads GIS data library as well as to KCGIS Center's plibrary. Additionally, data checking routines against TNET have been developed. Once RSD's routing model is developed further data quality and integrity checks will be developed.</li> </ul>

Name	<b>Internal Roads Viewer</b>
Description	Develop interactive Web mapping application specific to RSD business data. The intent is to support the business with an easy to use application without requiring the use of an ArcGIS client application.
Interdependencies	CRAGS and GISSQLDW servers maintained by the KCGIS Center. RSD's GIS enterprise database and other Roads business databases.
Status	Started

Target	2011
Activity	<ul style="list-style-type: none"><li>▪ Develop requirements.</li></ul>

#### **4.11.5 Hardware, Software, Database, and Licensing Changes**

- No change in 2010.

#### **4.11.6 Staffing Changes**

- Add 0.5 matrix FTE from the KCGIS Center for a total of 2 FTEs.
- 3.0 RSD FTEs were relocated to the Budget and Technology Management Office and hired 1 TLT, all 4 positions report to the Roads GIS Manager.

#### **4.11.7 Other Changes**

- No other changes.

## **4.12 DOT – Information Technology**

### **4.12.1 Agency GIS Overview, Priorities, and Goals**

- The mission of the DOT IT GIS workgroup is to provide the best possible GIS services in support of the Transit, Roads Services, Airport, Fleet and Ferry Divisions in an effort to improve regional mobility and quality of life in King County. The DOT IT GIS workgroup is a component of the Department of Transportation (DOT) Information Technology (IT) Section. The workgroups within the IT section form a comprehensive team for supporting DOT information systems infrastructure. Within the section, the DOT IT support workgroup is focused on the day-to-day operational needs that provide support of all of DOT. As in 2010, a major component of this group's efforts will be the support of the Transit Division, although emphasis will be further broadened to encompass the growing needs of the other divisions within DOT. These include the ongoing maintenance of GIS data and applications necessary to support division, department, and county business needs. The DOT IT GIS Unit represents the focal point for all spatial services, data, applications and support requests originating from within and from outside the department.
- GIS is an *enabling* technology, and DOT IT GIS support workgroup provides GIS users a healthy, functioning system accessible to staff throughout the department so they may incorporate GIS tools and data into their workflows. This workgroup has a clear understanding of all DOT IT GIS business functions, the geographic elements of these functions, and the best delivery mechanisms available to support them. This includes publication of spatial information in Transit enterprise databases with other business data; development of specialized extensions to GIS vendor products; development of whole new applications to support spatial data maintenance, access, and reporting; and advice to project managers on the acquisition of vendor products with geographic components. The DOT IT GIS workgroup also has the responsibility for coordinating data maintenance of a variety of business specific spatial data layers. Both the support services and data maintenance coordination responsibilities are essential to many business functions within the agency.
- GIS professionals within the workgroup provide technical expertise. For the Transit division, they provide transit business expertise, training, transit maps and data, user support, vendor software installation, application development and application support. These support services are targeted primarily at internal clients including Service Planning, Service Development, Service Quality, Service Communication, Safety Program, Security Program, Paratransit Operations, Design and Construction Program, Transit Speed and Reliability, Automatic Passenger Counters, Automatic Vehicle Location System, Customer Information, federally mandated Equity in Transit and Section 15 Reporting and DOT Director's Office. Also, Transit information systems projects often have geographic components necessitating GIS staff expertise. Currently, the highly visible On-board Systems and Radio Replacement capital projects have priority for the agency, and will continue to require consulting from the DOT IT GIS program support workgroup. Providing excellent support services to existing operations within Transit, these capital projects, and other external clients (see below) will continue to be a challenge given current staffing levels and budget constraints.
- The DOT IT GIS workgroup supports public data requests for Transit data. These requests come from businesses such as Google and Microsoft as well as from individual citizens. The data requested is made available on Metro Online's website, and is available for anyone to access after proceeding through a click through agreement. The transit data is specific in nature and is provisioned in the General Transit Feed Specification (GTFS). It is intended for use in trip planning and "real time" bus location applications on the Web and via smart phones. In addition to being the point of contact for outside access to Transit data, the GIS workgroup is involved with the external development community through developer workshops and direct response to developer questions.
- In addition to DOT IT GIS / Transit geographic business needs, new relationships will be forged as the Transportation Network (TNET) GIS Data Maintenance Initiative continues to expand. This

program is a consortium of regional cities, county agencies as well as public/private partnerships participating in maintaining a seamless database of transportation related spatial and attribute datasets. These datasets are housed centrally and maintained by transportation planners, city and county engineers, emergency response personnel and GIS analysts. This cooperative arrangement permits the availability of a high-accuracy, up-to-date transportation network suitable for a variety of transportation planning, operations, and related business functions throughout the region. The DOT IT GIS workgroup plays three pivotal roles in the TNET program:

- Maintenance of Transit specific pathways. The DOT IT GIS workgroup participates in the TNET Program as a consortium partner with the responsibility of data maintenance for all features within King County Metro's jurisdiction such as streets at park and rides, bases, transit centers, the transit tunnel, and the E-3 bus/rail way. The DOT IT GIS workgroup also is responsible for data maintenance of features that extend outside of King County such as freeways, state routes, and roads necessary for routing buses in adjacent counties. Although the Roads Services Division is responsible for unincorporated King County street maintenance, the DOT IT GIS workgroup performs limited, upon request editing of any "unclaimed" geographic areas within King County.
  - Support the master environment and each agency's implementation of TNET infrastructure. The TNET architecture consists of a central master repository that is replicated to each participating agency. The DOT IT workgroup is responsible for managing the entire infrastructure of the master repository including the database, the software, developed applications and hardware (including the separate test and development environments). Support activities include monitoring the TNET system; ensuring access by consortium members; maintenance and administration of ArcSDE; ensuring the proper functioning of the connectivity infrastructure; server support; application maintenance; database maintenance and software upgrades; as well as operating system maintenance and upgrades. The DOT IT GIS workgroup also provides assistance to all participating agencies in the support of their respective agency environments.
  - Coordinate the TNET Consortium. The DOT IT GIS workgroup serves as coordinator for the TNET Consortium. This includes coordinating editing conflicts between agencies; ensuring the proper and consistent implementation of the data maintenance standards; providing informational seminars to technical staff, management, and decision makers as requested; and hosting consortium meetings as needed.
- The DOT IT GIS workgroup provides support to TNET Consortium members through a group email monitored by DOT IT GIS staff ([TNET@kingcounty.gov](mailto:TNET@kingcounty.gov)), and an informational website hosted by the KCGIS Center ([www.kingcounty.gov/operations/GIS/KC\\_Projects/TNET.aspx](http://www.kingcounty.gov/operations/GIS/KC_Projects/TNET.aspx)). The KCGIS Center is regularly informed of Consortium activity so the enterprise might benefit from those relationships. The TNET project not only increases the number of users supported by the DOT IT GIS, but it adds users from non-King County agencies that access this important and highly-visible system. It is an ongoing challenge for DOT IT staff to prioritize the support required by Transportation Network Consortium members and efforts of internal divisions within DOT.
  - Members of the DOT IT GIS workgroup also participate on a variety of Federal workgroups to develop national standards for the communication of Transit spatial data to public and private agencies. The goals are to convey King County DOT IT's requirements and minimize any impacts to the division in adopting these standards. Also, the DOT IT workgroup is involved in the development of a transportation database of location-based transportation data to use in GIS across the state of Washington ([www.wsdot.wa.gov/mapsdata/TransFramework/default.htm](http://www.wsdot.wa.gov/mapsdata/TransFramework/default.htm)). As part of this framework effort, King County DOT IT GIS staff has worked closely with Pierce County and Washington State DOT on an advisory team that supports a seamless multimodal transportation network between the two counties. King County benefits from this project in its alignment of transportation network features along the county boundary as it will support E-911 service provision and regional transportation planning. This work is temporarily suspended pending further funding of staff within Washington's DOT.

#### 4.12.2 Planned Project Activity and New Projects

Name	<b>ArcGIS Server Collaboration</b>
Description	Continue to expand and support the combined ArcGIS Server initiative. This represents an ongoing effort. 2010 witnessed the continued tight collaboration between the KCGIS Center and DOT IT GIS in the maintenance of a shared ESRI ArcGIS Server environment. In this effort, DOT IT GIS makes a development/test server available and funds a staging license to augment the production environment that KCGIS Center maintains. This effort has saved the enterprise money and is available for all ArcGIS Server developers. DOT IT GIS also hosts an internal SharePoint site for the ArcGIS Server development community.
Interdependencies	Coordination with KCGIS Center in regards to infrastructure and administration. Coordination with the countywide ArcGIS Server development community.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Includes the development of best practices and the structure for optimal shared use of this resource. Further development of the SharePoint site.</li> </ul>

Name	<b>Enterprise Asset Management Geospatial Support</b>
Description	The Design & Construction Section in Transit implemented Infor's Enterprise Asset Management (EAM) system in 2009. One aspect of the project was to spatially enable some of the trackable assets in 2009, with an expansion in the number of kinds of spatially enabled objects occurring in 2010. As additional asset types are added, they may be added to our Enterprise GIS data warehouse, maintained by the KCGIS Center.
Interdependencies	Coordination with the sponsoring section. Coordination with the KCGIS Center if new asset types are deemed of interest to the county or general public.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Includes the addition of several new asset types to the system. Past work has been focused on system integration and SDE administration, which is expected to continue.</li> </ul>

Name	<b>Visual Basic 6 (VB6) Migration</b>
Description	Replace or retire all interactive and non-interactive VB6 applications. Effort continues in this direction but there are applications of both types that need to be moved to a more modern, supported language. The rate of development of replacement applications is expected to increase. First will be replacement of query and display applications, followed by interactive data maintenance applications.

Interdependencies	None.
Status	In progress.
Target	2012
Activity	<ul style="list-style-type: none"> <li>Some nightly processes have already been migrated, using Python, ArcObjects, and ModelBuilder technology. ArcGIS Server technology is being used for new query and display application development.</li> </ul>

Name	<b>TNET Editing Consortium Expansion</b>
Description	Continue to expand the distributed editing of TNET via the consortium. In 2011, we would like to add two additional external editing members, as well as the King County Sheriff's Office and the KCGIS Center.
Interdependencies	Coordination with KCGIS Center in regards to the replication services using enterprise resources. Coordination with willing consortium members.
Status	Ongoing.
Target	2011
Activity	<ul style="list-style-type: none"> <li>This includes implementation, training, and production support.</li> </ul>

Name	<b>ESRI Product Stack Migration from 9x to 10x</b>
Description	The DOT IT GIS production application environment is currently at the 9.3.1 level. 2011 will see the migration of all of our applications and systems to the latest version, 10.1. This is a major effort, as many applications will need to be modified.
Interdependencies	Coordination with KCGIS Center in regards to the migration and the relationships with enterprise resources. Coordination with ArcGIS Server and SDE users.
Status	Ongoing.
Target	2011
Activity	<ul style="list-style-type: none"> <li>This includes planning, testing, and production rollout.</li> </ul>

#### 4.12.3 Data Enhancement and Development

Name	<b>Adverse Weather Reroute and Diversion Data Set</b>
Description	This project will develop a comprehensive Transit adverse weather reroute and common diversion data set. Although the past two years has seen GIS creation of Transit reroute data, integration of the multiple sources and business entities has yet to occur. Additionally, no production data exists yet for commonly used, non-weather

	related diversions. The goal of this project is to get agreement from all stakeholders on a coordinated approach toward creating and managing this data.
Interdependencies	Coordination with other Transit workgroups with a stake in adverse weather reroute and diversion data. This data set will be posted into the enterprise data warehouse when complete. (Currently only adverse weather reroutes are posted.)
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Key data layers have been created. Efforts for 2011 involve updating the data and the development of a long term maintenance strategy.</li> </ul>

#### 4.12.4 Application Enhancement and Development

Name	<b>TNET Editing Application</b>
Description	This project will migrate an existing application. This application provides users with an editing interface for TNET attributes. Written in Visual Basic 6, the code base must be moved to more current technologies. Additionally, an altered architecture will strive to move as much functionality as possible into the on-board attribute editor that exists in ArcMap. This will reduce training time as well as shorten upgrade testing cycles. The current application also has an extension class DLL which provides additional behavior at the database level. While this code base is moved to the .NET framework, additional data integrity checks will be added to aid successful reconcile and posting of versions. This upgrade will benefit all TNET consortium members.
Interdependencies	All TNET data maintainers will need to migrate to and learn the new editing interface.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Design, development, and testing expected to take place in 2011.</li> </ul>

Name	<b>In-Motion Interactive Web Application</b>
Description	The in-motion projects are neighborhood based projects that encourage additional use of transit through an outreach and education program. In the past, this was performed with print media and Web pages. 2011 will involve the extension of much of the functionality to King County as a whole, via an extended interactive mapping application. Core aspects of the application are to be built so that they can be reused by various agencies.
Interdependencies	Primarily Transit entities. Possibly KCGIS Center development staff.
Status	In progress.

Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Deployment of extended version expected to take place in 2011.</li> </ul>

Name	<b>Adverse Weather Interactive Web Application</b>
Description	This project has two parts. Part one, completed in 2009, was the development of an adverse weather district map, used by Metro Online to better inform the public of what parts of the county are experiencing service changes due to bad weather. This map is used widely in print and digital form. Part two, is comprised of replacing the static images of the adverse weather districts on Metro Online with a dynamic, interactive, ArcGIS Server solution with many advanced features to assist customers in learning about reroutes. The application may use a new Transit Service base map, specific to Transit.
Interdependencies	Creation of Transit Service base map possibly to be performed by KCGIS Center cartographic staff. Coordination with Service Quality, Customer Information and Information Production groups within Transit. Production rollout on KCGIS resourced AGS infrastructure will require coordination with the KCGIS Center.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Development and testing in progress. Deployment has been delayed due to staffing changes and final rollout is now expected to take place in early 2011.</li> </ul>

Name	<b>Interactive Transit System Web Application</b>
Description	This project builds on the Adverse Weather Map Application by providing customers with a content rich replacement for the current, static system map on Metro Online. The intent of this project is to create a way for users to explore and learn about their transit options. For example, the interface will provide users with schedule information at the stop level.
Interdependencies	This project will use the Transit Service base map possibly to be created by KCGIS Center cartographic staff. Production rollout on KCGIS resourced AGS infrastructure will require coordination with the KCGIS Center.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Development in progress. Deployment expected to take place in 2011.</li> </ul>

Name	<b>GIS Toolbox Replacement</b>
Description	This project will develop a Web based ArcGIS Server application to replace the current GIS Toolbox for Transit's query and display users. This application will also replace ArcView 3.x for query and display users, representing a total of over 200 users.
Interdependencies	None.
Status	Not started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Expect to complete scoping, design, and replacement in 2011-12.</li> </ul>

#### 4.12.5 Hardware, Software, Database, and Licensing Changes

- As part of a county enterprise-wide effort, DOT IT GIS, and all of the Transit division's desktop ArcMap licenses are now directed to the central KCGIS Center license server (ORCA). Usage monitoring, reporting and billing changes are ongoing.
- DOT IT GIS will migrate from the ESRI 9.3 product line to 10.0 in 2011.
- In 2010, DOT IT GIS continued its move to migrate the Transit division's agency data maintenance layers to the SDE environment. Additional accounts and roles were created to facilitate best practice data organization. Schema changes have occurred on several levels, particularly those that are impacted by the enterprise COMMON\_INTEREST layer project. Additional agency schema changes have occurred to support adverse weather reroutes, and to support a new asset management system. These changes are not reflected in enterprise data. This type of work will continue.
- Additionally, new consortium member TNET databases have been created for the TNET members. These include the Transit Division, the Road Services Division and the City of Renton. These databases are required for replication of edits to function inside the fire wall. Consortium members are responsible for the maintenance of their own local TNET databases and version, with advisory support as needed by the DOT IT GIS / Transit GIS program support workgroup. 2010 will witness an expansion of this program with additional editing consortium members.

#### 4.12.6 Staffing Changes

- There have been staffing changes in 2010. A GIS Specialist – Senior position was vacated in October of 2010. This position is expected to be filled at as Master level position in the first quarter of 2011. The request for additional resources at a technician level has been initiated and may result in another staff in 2011. Do to the high volume of work, additional strategies of using KCGIS Center staff, term limited staff or contractors are being investigated.

#### 4.12.7 Other Changes

- A key change for 2011 is the implementation of the Department of Transportation IT reorganization strategy. The IT reorganization combined IT staff from various DOT divisions and consolidates them into one central group located at the department level. Service Level Agreements (SLA) will be crafted in the coming year by this new entity to identify the support for each division.

- The relationship with the KCGIS Center to provide on-call backup database services during DOT IT GIS workgroup primary DBA vacations and sick leave continues. The past year has not seen use of this on-call assistance.

## 4.13 DOT – King County International Airport

### 4.13.1 Agency GIS Overview, Priorities, and Goals

- King County International Airport (KCIA) is operated as a division of King County's Transportation Department. KCIA is the 36<sup>th</sup> busiest airport in the United States and ranks 30<sup>th</sup> in cargo. It has approximately 300,000 annual aircraft operations (takeoffs and landings) and 450 based aircraft. The Airport supports commercial, corporate, cargo and military aviation, as well as general aviation and aviation manufacturing. KCIA is the largest corporate aircraft center in the Pacific Northwest. The mission of KCIA is to provide safe and continuous aviation services, which support schedule commercial, charter, and air cargo airlines, as well as general aviation and corporate operators as part of the national air transportation system, while fulfilling the needs of county and state businesses and residents for quality airport transportation services and facilities.
- The Airport currently uses the KCGIS Center as its primary provider of GIS services and anticipates continuing to do so in the near future. KCIA does not have a stand-alone GIS unit. A Business Analyst is on staff to perform GIS tasks on Airport's GIS related projects. The Business Analyst performs all GIS related functions and serves as the division's liaison with KCGIS and all GIS related matter. This analyst reports to the Airport Director.
- GIS is rapidly being implemented at numerous airports to meet future FAA data sharing requirements; applying robust and versatile technology in managing and maintaining the airport by providing a tool used to enhance administration, planning, property management, engineering, environmental, maintenance safety, operations and compliance, sound insulation, financial decision-making, and reducing costs for airports. The Airport wants to initiate an FAA compliant GIS effort using in-house GIS expertise, as well as survey and/or photogrammetric consultants to collect, validate, format and convert data, and develop metadata to comply with FAA's Advisory Circular (AC) Part 150/5300-16A, AC Part 150/5300-17B, and AC Part 150/5300-18B for eventual use in FAA's Electronic ALP, the Airport's GIS, and other data products or applications. In achieving efficiency, data integrity, data reliability, and business knowledge, the Airport will be using GIS to centralize and combine data into a single platform or user interface for simultaneous spatial data access, analysis, and management. Listed below are the business functions within the Division that use or plan to use GIS:
  - **Administration, Planning and Property Management** – The Airport will use GIS for analysis in plan development, environmental evaluations, program tracking and production of visual materials. The initial phase of GIS implementation may include surveying the Airport to establish the GIS base map or Airport Layout Plan per FAA guidelines and development of a property management system.
  - **Engineering and Environmental Management** – This section provides and/or oversees engineering-related planning, environmental, design and construction management and assures the Airport operates in an environmentally and structurally safe and efficient manner. The Airport uses both CAD and GIS to maintain, map, and coordinate structural and environmental data, design, construction, and permitting documents. GIS will be used to manage, maintain, map, and generate reports on field collected storm water, soil, and sediment sample data. Overall, GIS will be used as a spatial database-driven central repository for storing and retrieving infrastructure data (i.e. facilities, utilities, pavement, construction, etc) and AutoCAD drawings.
  - **Maintenance** – Airport Maintenance maintains and repairs all airport facilities and airfield infrastructure such as runways, taxiways and ramps, utilities, and structures. The Airport uses MAXIMO, a leading asset, maintenance and facility management system, to track preventive and corrective maintenance work orders. This system may be integrated with the Airport's enterprise GIS to provide spatial information for the maintenance team to efficiently locate, track and perform facility, airside, and inventory work orders or

functions. The integration of the two systems will be analyzed after the standard work order management functions of MAXIMO are implemented.

- **Operations and Compliance** – This section assures that aircraft and their operators are safe while operating at KCIA including the coordination of emergency response planning for the Airport. This business function also includes Airport Rescue and Fire Fighting services (ARFF), and law enforcement, which is contracted from the King County Sheriff's Office. The Airport uses CAD and, in the future, GIS to identify, plan, manage, and track safety and security related items, including hazardous materials and emergency response information to ensure safety and compliance with FAA's rules and regulations.
- **Noise Office and Sound Insulation Program** – The Airport's Sound Insulation Program (SIP) uses GIS to track and maintain program participant data. The KCGIS Center is in the process of completing and implementing a web-based data-entry application and interactive map for maintaining the SIP participant data. It will be the central repository, mapping and reporting application of all relevant SIP information consisting of data of every property within the SIP's defined program area or Noise Mitigation Boundaries (NMB). This information will describe current status and progress of the Sound Insulation Program.

#### 4.13.2 Planned Project Activity and New Projects

Name	<b>Airport GIS Standards</b>
Description	Develop GIS Standards for Airport data based on FAA AC Part 150/5300-18B. GIS will be used in conjunction with CAD.
Interdependencies	None
Status	To be started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ To be determined.</li> </ul>

#### 4.13.3 Data Enhancement and Development

Name	<b>Airport Layout Plan Data and Property Survey Data Conversion</b>
Description	Convert KCIA's Airport Layout Plan Data (i.e. Building, Fence Line, Runway, Taxiway, etc.) and Property Survey (Lease Line) CAD layers, or survey airport to create GIS geodatabase featureclasses based on FAA AC's GIS Standards.
Interdependencies	KCGIS Center.
Status	To be started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Review and evaluate KCIA data to determine conversion or survey effort.</li> <li>▪ Generate a needs assessment to establish business tables for maintaining</li> </ul>

	<p>centralized data.</p> <ul style="list-style-type: none"> <li>▪ Design and develop KCIA geodatabase and base map featureclass data.</li> <li>▪ Next steps to be determined.</li> </ul>
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#### 4.13.4 Application Enhancement and Development

Name	<b>Sound Insulation Program Data Editing and Interactive Map</b>
Description	KCGIS Center to complete and implement an internal front-end web-based application for maintaining SIP data. It will be a central repository for all SIP related information for every property within the SIP's defined program area (NMB). Users will use this application to edit SIP business tables, query, map properties, and for reporting.
Interdependencies	KCGIS Center.
Status	In progress.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ Reevaluate Scope of Work and Project Estimate with Program Manager prior to product development.</li> <li>▪ Set KCIA up as a data steward.</li> <li>▪ Convert business tables from Microsoft Access to SDE tables.</li> <li>▪ Create new SIP SDE featureclass from business tables.</li> <li>▪ Create front-end web-based application for users to edit SIP business tables.</li> <li>▪ Implement an internal interactive mapping application.</li> </ul>

Name	<b>Property Information Management System (PIMS)</b>
Description	The PIMS will be used to monitor all leasing activity and assist in facility-based costing. In creating PIMS, the Airport will work with the KCGIS Center to evaluate, update and enhance the past AIS functions to better suit the Airport's business practices. This may include other Airport related data layers (i.e. Part 77 Surface, Preferential Use Area, Building Restriction Line, Fences Line, Apron Limit Line, Tie-Down Markings, etc).
Interdependencies	KCGIS Center.
Status	To be started.
Target	2011
Activity	<ul style="list-style-type: none"> <li>▪ To be determined.</li> </ul>

#### **4.13.5 Hardware, Software, Database, and Licensing Changes**

- As needed, the business analyst uses a local stand-alone ArcView license and central licenses through KCGIS on Orca for access to extension tools.

#### **4.13.6 Staffing Changes**

- None for 2011.

#### **4.13.7 Other Changes**

- None for 2011.

## **4.14 King County Elections**

### **4.14.1 Agency GIS Overview, Priorities, and Goals**

- The King County Department of Elections is an executive branch department that has the following mission statement:
  - By conducting accurate, secure and accessible elections, we provide an opportunity for the people of King County to participate in their government.
- The staff of the Election Department carries out the mission by operating under the following guiding principles:
  - Plan ahead and continuously improve our efficiency and our effectiveness;
  - Listen and learn from the public and each other to facilitate open and timely communication;
  - Educate the public and each other about election processes;
  - Dedicate ourselves to democracy by conducting fair and impartial elections;
  - Guide each other to fulfill our mission with excellence;
  - Encourage everyone's contribution for the success of our team.
- The King County Elections GIS (KCEGIS) work unit is physically housed in the King County Elections facility located in Renton Washington. The address for the Elections office is: 919 SW Grady Way, Renton WA 98057. At the time of this O&M submittal, the Elections Office has been temporarily re-located to a facility at Boeing Field. This temporary relocation is due to flooding concerns stemming from the Howard Hansen Dam on the Green River. It is anticipated Elections will be able to return to the Grady Way location in June 2011. The mailing address for Elections will remain the same, however the new temporary physical address is: 9010 East Marginal Way S. Tukwila, WA 98108.
- Due to King County budget reductions, the Information Technology Supervisor position, which has supervised Elections' GIS activities, has been laid off for 2011. Moving forward, a GIS Specialist – Senior (Lead) will report to the Elections Technical Services Manager for operations and maintenance of Election related work programs. The position is currently a Journey level position that will be reclassified in early 2011. The GIS Specialist – Senior position will interface with the appropriate department staff for coordination of cross-departmental projects. Customer service for both internal and external clients is reviewed and approved by the GIS Specialist – Senior in coordination with the Technical Services Manager. This is accomplished by coordinating special projects and requests with the KCGIS Center, to determine which agency should respond to the request.
- Elections will continue having representation at the GIS Technical Committee level and may be raising the issue of representation on the GIS Oversight Committee in 2011
- In 2011, one additional TLT GIS Specialist – Entry position will be added to the two existing FTE GIS Specialists – Journey. All of these positions will receive job assignments and report to the GIS Specialist – Senior. These analysts perform duty assignments supporting five basic business areas: political redistricting, election district boundary maintenance, voter registration, election support, and customer service. Duties and job responsibilities are shared between GIS staff, with the division of labor coordinated and assigned by the GIS lead. Although the workload is distributed evenly between staff members, one GIS analyst is primarily responsible for supporting the ongoing data maintenance needs and requests of the Voter Registration section, one GIS analyst has the primary responsibility for data integration and maintenance of the district data sets, and one analyst handles special data requests and all production related issues. In 2011,

Elections GIS staff will also be working on various GIS projects, providing data maintenance, integration, data QC, and election specific application development.

- The services provided by KCEGIS staff include GIS data analysis, census demographics, cartographic production and CD and map sales. These services are also provided to the general public and clients outside the county organizational structure. In 2010, KCEGIS staff provided approximately 35 GIS data CDs and approximately 350 paper maps containing spatial data. Ninety different map products are produced and maintained and are also available as PDFs on the Elections website. KCEGIS also has six datasets available on the King County Data Portal Site and anticipates adding fourteen more in 2011.
- The KCEGIS workgroup is currently still understaffed for implementation of greater GIS technologies. Numerous opportunities exist for new GIS applications that would enhance customer service and assist in achieving greater business process efficiency, but staff resources are limited to maintaining current Election GIS data and responding to the existing department data analysis requests and providing related in-house GIS technical support.
- The King County Elections GIS work unit has the primary GIS responsibility for the creation, integration and maintenance of geographic boundary data incorporated into the “District” theme of the King County Coordinated GIS (KCGIS) Program. The District data layer is utilized by many agencies within King County and it supports numerous county department business applications. In 2010, KCEGIS staff supported Election Department business programs by providing digital map and CD production services, data creation, integration, maintenance and analysis, internet based services of available map products, and Regional Voting Center (RVC) and Ballot Drop Off Location (BDOL) lookup applications. GIS is used in many aspects of the department’s business functions including but not limited to:
  - *Political Redistricting/ Voting District Maintenance* – GIS analysts within the division are responsible for the implementation and integration of data resulting from Federal, State and local redistricting plans (*RCW 29.76A and 29.76*) and annual voting district maintenance (*RCW 29A.76.010, RCW 29A.76.030, and RCW 29a.76.040,*). To support this program, GIS tools applications and spatial data are used by Elections staff to analyze plans and implement district changes.
  - *Jurisdiction Boundaries* – In King County, the Director of Elections performs many of the business functions of the “County Auditor” (with exception to Recording & Licensing duties). Under State law, the “Auditor” is mandated to conduct primary, general and special elections for all political jurisdictions (including cities, towns, and minor taxing districts) within the county and to perform all duties required in order to carry out this function. (*RCW 29A.76.020*). In order to do this, the “Auditor” must maintain the latest accurate information describing the geographic boundaries of these jurisdictions, as well as the director, council, or commissioner districts within, and ensure that such information is kept current.
  - *Election Support* – Jurisdictions in King County can conduct as many as five elections per year. GIS staff, data, and tools are used to support the business of conducting elections. Candidate filing, jurisdiction flagging, ballot layout and design, absentee ballots, petition qualification and verification, production of the Local Voters Pamphlet, all rely on spatial data and applications maintained and supported by KCEGIS staff.
  - *Voter Registration* – The Elections office processes approximately 800,000 voter registration transactions per year. The State law (*RCW 29A.08.125*) requires the Auditor’s office to maintain a database containing names, address, major political districts, minor taxing districts (jurisdictions) and precinct information for every voter. KCEGIS staff maintains spatial data and support the applications crucial to this business function.
  - *Document Recording* – The King County Recorder’s Office (Records) processes and records documents related to real estate transactions and collects excise tax and

recording fees (REET) (RCW 36.22.010). The recording procedure relies on accurate up to date city jurisdiction information to process these transactions. KCEGIS data and staff provide support to this business application. Although no formal support or data sharing agreement exists, KCEGIS still supports the King County Recorder's Office with updated city annexation data and parcel ID numbers to support the REET process. As of this O&M submittal, no changes in the support are planned.

- o *Public Information* – Election GIS maps, data and applications are used to aid in the delivery of public information. District information is depicted using GIS for all the department map series products available hard copy or via the Internet.

#### 4.14.2 Planned Project Activity and New Projects

Name	<b>DIMS (the current election management system) Operation and Maintenance</b>
Description	Elections GIS DIMS specific support.
Interdependencies	Working with ES&S.
Status	In progress.
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ Complete yearly precinct alterations for 2011.</li> <li>▪ Perform minor taxing district boundary maintenance.</li> <li>▪ Update voter registration database with new addresses.</li> <li>▪ Continue developing enhanced editing processes and procedures.</li> <li>▪ Testing new DIMSNet versions</li> </ul>

Name	<b>Phase II of Major Political Redistricting</b>
Description	Review redistricting plans and give input to the redistricting committees and redistricting masters that will aid in implementation of 2012 Congressional, Legislative, and County Council redistricting plans.
Interdependencies	Availability of staff resources; State and County Redistricting Committees
Status	State and County Redistricting Committees will form in early 2011; KCEGIS developing two year work plan.
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ Attend Redistricting Committee meetings (State and County).</li> <li>▪ Review and give input to proposed plans.</li> <li>▪ Budget, communication, and work plan in development.</li> </ul>

Name	<b>Position Accuracy Improvements (PAI)</b>
Description	Realign Election district data to KC Assessor's PAI.
Interdependencies	Availability of staff resources, coordination with KC Assessor's Office.
Status	In progress.
Target	Q4 2011 and beyond (ongoing project)
Activity	<ul style="list-style-type: none"> <li>▪ Coordinate with Assessor parcel updates.</li> <li>▪ QC geography.</li> <li>▪ Integrate changes and repost all KCEGIS's datasets.</li> </ul>

Name	<b>Voter Geocoding Pilot Project</b>
Description	Geocode voter addresses in DIMS and overlay with GIS datasets.
Interdependencies	Availability of staff resources.
Status	Not started.
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ Define project scope and pilot area.</li> <li>▪ Preliminary boundary compare and reconciliation.</li> <li>▪ Geocode voters based on a 3 tier address database.</li> <li>▪ Evaluate and research mismatches.</li> <li>▪ Update Election Management System with consideration to the election calendar.</li> </ul>

#### 4.14.3 Data Enhancement and Development

Name	<b>New Dataset for Regional Fire Authorities</b>
Description	Create and maintain Regional Fire Authority boundaries.
Interdependencies	Cities and fire districts.
Status	Not started.
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ Create new jurisdiction type and populate jurisdictions in Election Management System (DIMS).</li> <li>▪ Create dataset for Regional Fire Authorities.</li> </ul>

Name	<b>Taxing District Boundary Review</b>
Description	Review of taxing district boundaries in coordination with KC Assessor's Office to resolve any discrepancies.
Interdependencies	Availability of staff resources, coordination with KC Assessor's Office; individual taxing districts.
Status	Recently started.
Target	None
Activity	<ul style="list-style-type: none"> <li>▪ Coordinate with KCA to review district sets.</li> <li>▪ Compare KCA districts to Elections GIS districts.</li> <li>▪ Resolve any discrepancies.</li> <li>▪ Establish backup plans.</li> </ul>

#### 4.14.4 Application Enhancement and Development

Name	<b>DIMS / KCGIS Interface Development</b>
Description	Create an application, interface, or software enhancement that will allow ArcGIS to update DIMS street address file.
Interdependencies	ES&S, ESRI, KCGIS, other state election offices, and any agencies that use street or address data.
Status	Currently gathering project requirements and defining scope.
Target	Q4 2011
Activity	<ul style="list-style-type: none"> <li>▪ Establish project requirements.</li> <li>▪ Create a development plan.</li> </ul>

#### 4.14.5 Hardware, Software, Database, and Licensing Changes

- Possible additions of ArcGIS licenses and hardware including 32" monitors and a wide format plotter as part of the project plan for Redistricting.

#### 4.14.6 Staffing Changes

- Current staffing plans for 2011 include the layoff of the GIS Supervisor position. Additional changes to compensate for this lay-off and the increase in workload as we approach the decennial Redistricting is still under internal discussion, but will most certainly include use of temporary TLT staff.

#### **4.14.7 Other Changes**

- No other changes expected.

## 4.15 King County Sheriff's Office

### 4.15.1 Agency GIS Overview, Priorities, and Goals

- Within the King County Sheriff's Office (KCSO), GIS services are provided by two groups: The Communications Section of the Technical Services Division, and The Research, Planning & Information Services Unit (RP&IS) of the Technical Services Division. Collectively, the GIS program vision, mission, and objectives are:

**Vision** – To create a Geographic Information System (GIS) with advanced mapping capabilities to serve the citizens of King County, the King County Sheriff's Office and its contract cities.

**Mission** – To work collaboratively with other King County departments and their GIS units to stay aware of GIS standards and to produce and provide data and applications that are as accurate as possible, consistent, accessible, affordable and comprehensive for both internal and external customers, while meeting the unique business needs of the King County Sheriff's Office.

**Objective** – To demonstrate to staff and customers that GIS is a useful tool for a modern law enforcement agency, by delivering/providing tools/products that are powerful, flexible and relevant to the mission of the King County Sheriff's Office.

- The Communications Section of the Technical Services Division has one full-time GIS Specialist who is responsible for maintaining GIS Geofile response information including various district and jurisdiction boundaries, street and address changes, business types and other location-specific information. In addition, maps are designed and created for community display and planning purposes as time allows. As more customers learn about the possibilities and services provided, more map requests are made. These requests are primarily internal and occur sporadically.
- The Research, Planning & Information Services Unit (RP&IS) of the Technical Services Division currently has primary responsibility for providing GIS services for crime analysis- related purposes. RP&IS is a multidisciplinary unit with crime analysis being the primary responsibility of the unit. This unit has no personnel with full-time GIS responsibilities. However, 4.0 RP&IS FTE's are proficient with ArcGIS 9.x and use it as the primary tool for creating and completing GIS related projects.
- The RP&IS supervisor currently coordinates all GIS activity for the RP&IS Unit, as well as performing a substantial amount of non-GIS related data and information technology business functions. A unique aspect of the RP&IS program is the assignment of GIS support responsibility for a designated geographic region of the county (a precinct) to each of the four ArcGIS proficient staff. This simplifies communications between field staff (patrol), investigative staff (detectives) and the RP&IS crime analysts. The RP&IS supervisor has specific crime analysis support functions (primarily administrative, Metro Transit Police and major crimes/intelligence-related), performs periodic workload balancing and handles a number of specialized projects.
- Types of GIS services provided to end users include mapping, GIS analysis, data development, and limited/selected data maintenance.
- Research, Planning & Information Services/Crime Analysis Unit personnel continue to utilize ST\_ADDRESS as one source for 'geocoding' address/crime-related data. However, this file has many data 'holes' and has an update cycle that is not timely enough for some critical functions performed by the Sheriff's Office – notably E-911 dispatching. A primary challenge for the Sheriff's Office is the lack of a definitive address file and an accurate up-to-date street file. The Sheriff's Office Communication Center is maintaining its own street file (tabular data) – and will be for the foreseeable future, until it is verified that TNET can be customized to fit the requirements of the CAD system.
- A key challenge is keeping up with changes to the street file used for 911 dispatching. Another challenge is obtaining server space to house the large orthophoto imagery files that would be useful in the CAD map (known as Maverick Map). One of the opportunities for the King County

Sheriff's Office is working with other county agencies and groups, particularly the Authoritative Address Workgroup. A cross-agency dependency is upon the King County GIS Center for updated common place point files such as schools and hospitals. Such point files are uploaded to the map that works in conjunction with CAD (Maverick Map). They serve as a visual reference for Communication Specialists as they take calls and follow up with appropriate action.

- The major strengths of the GIS program are that polygon boundary file updates are very timely, and the entire staff has a general working knowledge of GIS and its applications within the Sheriff's Office Communications Center. One major weakness is that the common data storage and management framework for ArcGIS, the geodatabase, is not currently being used. Instead, data is maintained in a shapefile format for use by the CAD system.

#### 4.15.2 Planned Project Activity and New Projects

Name	<b>Editing Data in SDE Database for Posting to Plibrary</b>
Description	Edit and maintain patrol district data in a file geodatabase and copy the featureclass to SDE Maintenance database when it is ready to be posted to Plibrary and ultimately exported as a shapefile.
Interdependencies	Data Coordinator at the King County GIS Center.
Status	In progress.
Target	Q1 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Edit data in SDE database.</li> <li>▪ Post to Plibrary.</li> <li>▪ Reproject and export to a shapefile for use in CAD system.</li> </ul>

Name	<b>Geographic Boundary Rezoning Project</b>
Description	New geographic boundaries for the Sheriff's Office are currently being planned as a way to consolidate services and increase efficiency. When word is received on what these boundaries are, new GIS data layers will be created and the data will be incorporated into the 911-CAD system. <u>UPDATE</u> : This project is on hold for now until administration revisits the idea of consolidation.
Interdependencies	None.
Status	On hold.
Target	Unknown.
Activity	<ul style="list-style-type: none"> <li>▪ Receive information on new boundaries.</li> <li>▪ Create new GIS data layer.</li> <li>▪ Incorporate new layer into CommandCAD and Maverick Map.</li> </ul>

Name	<b>Sound Transit Jurisdictional Data Acquisition</b>
Description	The KCSO contracts with Sound Transit to provide police services to its customers. The heavy rail and bus service routes extend into Pierce County and Snohomish County, so there may be a need integrate Pierce and Snohomish GIS data into the 911-CAD system. This will be even more important when light rail expands beyond King County borders in the future.
Interdependencies	KCGIS Center for Pierce and Snohomish County data coordination.
Status	Active.
Target	TBD.
Activity	<ul style="list-style-type: none"> <li>▪ Determine how to define a location along a rail line, especially when elevated or in tunnel.</li> <li>▪ Determine whether KCGIS Center has appropriate data.</li> <li>▪ Incorporate new information into CommandCAD and Maverick Map.</li> </ul>

#### 4.15.3 Data Enhancement and Development

Name	<b>Update or Replace Street Layer</b>
Description	Determine whether TNET meets the needs of the 911-CAD system, thus replacing the street layer that is used currently.
Interdependencies	DOT-Road Services, DOT-Transit, and other TNET agencies.
Status	In progress.
Target	Ongoing.
Activity	<ul style="list-style-type: none"> <li>▪ Compare current street layer to TNET.</li> <li>▪ Load a customized version of TNET to Test CAD System.</li> <li>▪ Evaluate errors and determine suitability.</li> </ul>

#### 4.15.4 Application Enhancement and Development

- None planned.

#### 4.15.5 Hardware, Software, Database, and Licensing Changes

- The KCSO Communications Center Technical Services Division plans to upgrade to ArcGIS 10.0 in the first quarter of 2011, provided there are no known operational problems with the software.
- The Communications Center is currently using Tiburon CommandCad Version 2.3. An upgrade to Version 2.6 is anticipated, but the upgrade is dependent on external variables. Version 2.6 will not require data conversion from shapefile to T1 File, and will be able to geocode point addresses. It will still fall back on street address ranges if the address point cannot geocode.

#### **4.15.6 Staffing Changes**

- The KCSO hired a GIS Specialist on June 1, 2009. This position reports to the Technical Support Supervisor in the Communications Section of the Technical Services Division. The primary duties for this position are 911-CAD system support. The GIS Specialist is the KCSO's representative on the GIS Technical Committee, effective November 3, 2009.

#### **4.15.7 Other Changes**

- None planned.

## **4.16 Metropolitan King County Council**

### **4.16.1 Agency GIS Overview, Priorities, and Goals**

- The nine member Metropolitan King County Council is the policy determining body of the county and exercises all legislative powers authorized under the King County charter. These include, but are not limited to: the adoption and enactment of ordinances and motions, levying of taxes, appropriation of funds, establishment of compensation levels for county employees, and the organization of administrative offices and executive departments.
- GIS services for the County Council are provided by its central staff, a non-partisan group of professionals that support the council's legislative committees. The central staff uses GIS to support the council in its policymaking role by manipulating and presenting geographic data in the form of maps, graphics, data files, reports, and spatial analysis. The objective is to provide data and information that will assist council members in their roles as policymakers in a host of issue areas, including but not limited to: land use, transportation, public health and safety, human services, utilities, technology and the environment.
- The County Council does not have a stand-alone GIS unit, but uses a member of central committee staff as a GIS Coordinator to assist the central and other legislative staff in utilizing GIS. The Coordinator serves as a liaison between central staff and the broader GIS community, and is responsible for coordinating training, procuring data, routing requests, and enlisting the help of other departments on complex projects. The GIS Coordinator also serves as the Council representative to the KCGIS Technical Committee.
- The Council does not have responsibility for developing, maintaining, or enhancing spatial data or metadata, but utilizes data and information housed in the KCGIS Spatial Data Warehouse to create maps and conduct spatial analysis. The most frequently used data layers include, but are not limited to:
  - parcels,
  - concurrency and road mitigation payment system,
  - land use and zoning,
  - critical areas,
  - council district boundaries,
  - voting precincts,
  - city boundaries,
  - potential annexation areas,
  - street network and annotation,
  - parks, trails and open space,
  - natural resources lands (agriculture, mining and forestry),
  - hydrology,
  - urban growth area boundary,
  - aerial imagery, and
  - Assessor quarter-section maps.
- In mid-2008, the King County GIS Center completed a GIS needs assessment for the Council which concluded:
  - The Council's GIS technology platform is out of date. The rest of the county has migrated to ArcGIS 9.x.
  - The Council is underutilizing GIS, both as a mapping and analysis tool. The central staff could be better utilizing GIS as a visual communication and analysis tool, and the council members would benefit by having more information at their disposal when making policy decisions. The council members' personal staff could be utilizing GIS or GIS applications to assist with constituent relations, and as a method of better understanding the geographic, demographic, and other characteristics that define each council district.

- The Council contributes a significant amount of money each year to the overhead for the KCGIS Center, when the Council does not participate fully in GIS it does not reap the benefit of this investment, and in effect subsidizes the GIS activities of other departments.
- The Council will conduct periodic, on-going reviews of its implementation of the recommendations contained in the GIS Needs Assessment to determine both the progress towards implementation and the need for an updated needs assessment.
- Potential training needs for 2011 are initial courses in the latest version of ArcGIS 9.x for the GIS coordinator. The council pays for GIS training with resources from its general training fund.

#### 4.16.2 Planned Project Activity and New Projects

Name	<b>GIS Workshop</b>
Description	Workshop presented by KCGIS Center to inform and train council staff to maximize use of KCGIS systems, data, and staff resources.
Interdependencies	This workshop is facilitated by the KCGIS Center and is dependant on available time of KCGIS Center staff.
Status	In progress
Target	May 2011
Activity	<ul style="list-style-type: none"> <li>▪ Coordinate workshop data with KCGIS Center.</li> </ul>

#### 4.16.3 Data Enhancement and Development

- None planned at this time.

#### 4.16.4 Application Enhancement and Development

- None planned at this time.

#### 4.16.5 Hardware, Software, Database, and Licensing Changes

- The most likely change would be migration to ArcGIS 9.x because failure to upgrade in the same manner as the rest of the county will result in the current software being unsupported by the KCGIS Center.

#### 4.16.6 Staffing Changes

- None planned at this time.

#### 4.16.7 Other Changes

- None planned at this time.

## **4.17 Office of Performance, Strategy and Budget**

### **4.17.1 Agency GIS Overview, Priorities, and Goals**

- January 1, 2011 went into effect the merging of the functions of the Office of Management and Budget (OMB) and several functions of the Office of Strategic Planning and Performance Management (OSPPM) into the new Office of Performance, Strategy, and Budget (PSB) within the Executive Office.
- The purpose of the merger is to integrate strategic planning, budgeting, financial oversight, and performance measurement to support implementation of the King County Strategic Plan
- The Office of PSB reorganizes the work of strategic planning, including implementation and performance management, and budgeting into two integrated functions managed by one office with a broader set of responsibilities but with fewer staff. The creation of this office recognizes the financial challenges of King County and generates efficiencies through the combination of reduced resources while expanding the duties and responsibilities to be undertaken to meet the intent of the act. This reconfiguration of functions and associated staff will provide for a comprehensive, multidisciplinary approach to leverage limited county resources and maximize opportunities for policy and service coordination and collaboration across county government that is both more effective and efficient.
- The Office of PSB GIS activity supports a subset of specialized business functions not only within PSB, but throughout the Executive Office for which GIS based maps and analysis improve agency effectiveness. The staff that handles ad-hoc requests for GIS services is concentrated in the PSB Technology Group, who reports directly to the Director of PSB through the group's manager.
- Business functions of the Office of PSB include the following:
  - Strategic Planning / Policy Development
  - Budgeting
  - Strategic Planning Implementation
  - Performance Monitoring / Accountability / Evaluation
  - Regional Governance / Annexation Initiative
  - Growth Information / Growth Management
  - Demographics / Forecasting
  - Equity and Social Justice Initiative
- PSB's GIS work program is integrated into the Technology Group work plan as support to all ongoing PSB activity. GIS is centered in the Technology Group because of the variety of products (Annual Growth Report, Budget support documents, and Budget support databases) and research/analysis responsibilities (demographics, growth management, buildable lands) that have a strong geographic analysis/mapping component. None of the Technology Group's 4 FTE's has full time GIS responsibility, although one spends a majority of her time doing GIS work.
- The Technology Group supervisor is responsible for the groups' activity, but most GIS work goes directly to the GIS Analyst, who prepares ad hoc maps, analysis, or GIS projects upon request by the Executive Office staff. Requests for more complex/time intensive services are referred to the KCGIS Center.
- PSB's GIS customer base is remarkably broad for an operation of its size. Customers include staff from every agency within King County, as well as from local jurisdictions, business, and the media. Requests are not uncommon from remote jurisdictions, research agencies, and media nationally, and occasionally from overseas. Requests fall into two broad categories: agency decision makers typically request answers to specific questions which can be met with a map or a numerical response; while planners, researchers, and analysts usually want data and map coverages or shapefiles with which to do their own unique analysis.

- The year 2011 will allow rebuilding and enhancement of PSB's GIS files. The Office's primary GIS analyst will focus on the integration of the new office's overall GIS needs, refinement of existing GIS data, especially in Growth Management, Budget development and on updates of potential annexation areas. There may be significant needs for geographic information during 2011 that the Technology Group will not be able to provide. PSB will rely on assistance from the KCGIS Center and other departments to get through the year.

#### **4.17.2 Planned Project Activity and New Projects**

- None planned.

#### **4.17.3 Data Enhancement and Development**

- None planned.

#### **4.17.4 Application Enhancement and Development**

- None planned.

#### **4.17.5 Hardware, Software, Database, and Licensing Changes**

- Will join KCGIS enterprise license management for access to more software extensions.

#### **4.17.6 Staffing Changes**

- No changes.

#### **4.17.7 Other Changes**

- No other changes are anticipated.

## **4.18 Department of Community and Human Services**

### **4.18.1 Agency GIS Overview, Priorities, and Goals**

- **Agency Background:** The Department of Community and Human Services (DCHS) is one of seven Executive departments within King County, Washington. The mission of DCHS is: “To enhance the quality of life, protect rights, and promote the self-sufficiency of our region’s diverse individuals, families, and communities.” The current focus of the department is on five primary goals:
  - Provide effective prevention and intervention strategies for those most at-risk and most in need to prevent or reduce more acute illness, high-risk behaviors, incarceration and other emergency medical or crisis responses.
  - Provide job readiness, education and employment services to help vulnerable youth and adults increase independence and self-sufficiency and lead more meaningful and productive lives.
  - Develop and implement stronger prevention measures to avoid or prevent homelessness, and create or preserve supportive housing for those who are homeless or at risk of homelessness to achieve the goal of ending homelessness.
  - Continue to develop and provide services that reduce the growth of emergency medical and criminal justice system involvement and costs.
  - Assure quality public defense services.
- To support its mission and its stated goals, the department administers a budget of approximately \$413 million (2010) with funding not only from the County itself, but also from federal, state, city, foundation, and private sources. The department has more than 350 employees who support designated programs, organized into a number of distinct divisions:
  - Community Services Division (CSD)
  - Developmental Disabilities Division (DDD)
  - Mental Health, Chemical Abuse and Dependency Services Division (MHCADSD)
  - Office of the Public Defender (OPD)
  - DCHS Administration
- Most of the divisions coordinate across organizational lines to support the department mission and goals described above. In addition, other groups off the formal DCHS organization chart coordinate their efforts with DCHS:
  - Advisory Council on Aging and Disability Services
  - Alcoholism and Substance Abuse Administration Board
  - Board for Developmental Disabilities
  - Community Organizing Program Advisory Board
  - Mental Health Advisory Board
  - Mental Illness and Drug Dependency Oversight Committee
  - Regional Human Services Levy Oversight Board
  - Veterans Citizen Levy Oversight Board
  - Veterans’ Program Advisory Board
  - Women’s Program Advisory Board
- DCHS also coordinates their efforts with a regional council on homelessness prevention and six unincorporated area councils.
  - Committee to End Homelessness in King County
  - Four Creeks Unincorporated Area Council
  - Greater Maple Valley Area Council
  - North Highline Unincorporated Area Council

- Upper Bear Creek Community Council
  - Vashon-Maury Island Community Council
  - West Hill Community Council
- **GIS Program Organization:** There is no designated DCHS GIS unit or program. The DCHS Director's Office provides the Department's KCGIS Technical Committee representative. The DCHS Technical Committee representative coordinates occasional cross-department GIS related planning sessions. Every year the committee representative convenes an interdivision DCHS meeting with KCGIS Center Client Services to plan custom mapping and/or data analysis projects for the year. Within division work programs a few individuals provide part time GIS support on an ad-hoc basis.
  - **GIS Services:** The primary GIS service utilized by DCHS end-users is the production of maps and spatial analysis derived from KCGIS data, and geographic data provided by DCHS. Maps are produced for community presentations, to accompany funding requests, to clarify statistical data in a variety of plans and reports to regulatory agencies, and for department/division management. Spatial data is often used for environmental analysis required for housing development projects.
  - **GIS Program Challenge:** The key challenge is a relatively low level of awareness on the part of many agency staff of the basics of GIS and of the potential usefulness of GIS technology for typical DCHS business activities. Just a handful of DCHS staff have any experience using GIS derived data and resources for their business purposes, and fewer still have experience and training using GIS software and data themselves. To overcome this challenge, there is a small cadre of GIS advocates who are working to raise awareness of the potential uses of GIS within DCHS. Each division has a modest budget for GIS mapping services and training.
  - **DCHS GIS Coordination within KCGIS:** The department's coordination with KCGIS will be limited to continued participation on the GIS Technical Committee, use of KCGIS data and application resources, and annual coordination with KCGIS Center Client Services for production of the majority of maps.

#### 4.18.2 Planned Project Activity and New Projects

As DCHS resource priorities permit, the following pages describe projects which may involve requests for GIS support. Given budget realities, this plan does not represent commitments to the KCGIS Center for services. Potential projects are given HIGH, MEDIUM, and LOW priorities, so that DCHS management may apportion resources appropriately.

Name	<b>DCHS Maps for ESJI (HIGH – CARRYOVER)</b>
Description	As the department develops programs to respond to the Executive's Equity and Social Justice Initiative, there is a possible need for maps to be used to communicate with internal and external audiences about locations of the minority populations in the county that receive DCHS services.
Interdependencies	TBD
Status	Not started.
Target	TBD
Activity	<ul style="list-style-type: none"> <li>▪ Identify required map content and date required.</li> <li>▪ Gather required data from the divisions, projects, evaluation plans and procurement plans as appropriate.</li> <li>▪ Transmit requests for service to GIS.</li> </ul>

Name	<b>CEH Maps to Support Coordinated Intake for Homeless Initiative (MEDIUM – CARRYOVER)</b>
Description	CEH and CSD, together with the Gates Foundation and other Safe Harbors stakeholders, have been working to develop methods to support and encourage coordinated intake for homeless and those at risk of homelessness.
Interdependencies	Ability of stakeholders to define specific mapping requirements for this initiative. Availability of 2011 budget to support the project.
Status	Not started.
Target	TBD
Activity	<ul style="list-style-type: none"> <li>▪ Identify detailed requirements from each stakeholder, and sources for appropriate data.</li> <li>▪ Develop specifications and milestone schedules.</li> <li>▪ Transmit data in suitable file formats to GIS.</li> <li>▪ Transmit requests for service to GIS.</li> </ul>

Name	<b>CSD Demographic Data Displays for Census 2011 Data and ACS 2005 – 2009 Data for KC Local Areas (MEDIUM – NEW)</b>
Description	CSD has requested several different types of maps using data from the Census 2011 and ACS 2005-2009 for KC local areas.
Interdependencies	Availability of Census 2011 data and ACS 2005 – 2009 data for KC local areas.
Status	Pending.
Target	These maps will be requested at various times during calendar year 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Identify types of maps desired and due date for each.</li> <li>▪ Identify sources of data for the maps.</li> <li>▪ Extract data.</li> <li>▪ Transmit data and map request to GIS.</li> </ul>

Name	<b>Maps for 2012 Comprehensive Plan Update (Housing Technical Appendix) (MEDIUM – NEW)</b>
Description	The Housing and Community Development Program has a need for maps for its 2012 Comprehensive Plan Update (Housing Technical Appendix).
Interdependencies	TBD

Status	Pending.
Target	TBD
Activity	<ul style="list-style-type: none"> <li>▪ TBD</li> </ul>

Name	<b>DCHS Demographic Data Displays (MEDIUM – CARRYOVER)</b>
Description	The DCHS Director’s Office has requested several different types of maps depicting locations of clients served and locations of service providers be produced. These maps would support a number of community and advisory board presentations throughout the year. Once produced, these maps will probably require annual updates.
Interdependencies	Availability of data from the divisions’ current data bases.
Status	Pending.
Target	These maps will be requested at various times during calendar year 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Identify types of maps desired and due date for each.</li> <li>▪ Identify sources of data for the maps and extract data to transmit to GIS.</li> <li>▪ Transmit data and map request to GIS.</li> </ul>

Name	<b>Veterans and Human Services Levy (HIGH – ONGOING)</b>
Description	There is a continuing need for maps for reports to various stakeholders, and to support discussions with and presentations to the two citizens oversight boards – the Veterans Citizen Levy Oversight Board (VCLOB) and the Regional Human Services Levy Oversight Board (RHSLOB) – which meet monthly.
Interdependencies	Veterans and Human Services Levy Evaluation Plan and Service Improvement Plan. Availability of data on DCHS services from the divisions, and Levy Procurement Plan related data to present with graphical data available from GIS libraries.
Status	Requests are in progress.
Target	There will be several requests throughout 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Identify required map content and date required.</li> <li>▪ Gather required data from the divisions and procurement plans as appropriate.</li> <li>▪ Transmit requests for service to GIS.</li> </ul>

Name	<b>MHCADSD – MIDD (HIGH – ONGOING)</b>
Description	The Mental Illness and Drug Dependency Action Plan (MIDD) is the defining program for this request. One or more maps will be needed to support different groupings of program strategies. Updates to MIDD maps produced in 2010 may also be requested.
Interdependencies	Continued detailed planning linking expenditures to services and programs/strategies, and to geographic areas. Available location data for people served.
Status	Map and data needs will be refined throughout the year.
Target	Ongoing.
Activity	<ul style="list-style-type: none"> <li>▪ Determine the level of geographic detail to use, the program/strategy groupings, and the methodology for compiling and displaying expenditure data.</li> <li>▪ Provide data as appropriate.</li> <li>▪ Request maps from GIS.</li> <li>▪ Determine any additional map requirements based on 2011 planning and implementation efforts.</li> </ul>

Name	<b>HCD – Map Updates for 2011 (MEDIUM – ONGOING)</b>
Description	HCD and its Community Development Block Grant (CDBG) program require an annual update to their maps of housing projects funded in King County. This is usually requested in the first quarter of the year. There are over 35 maps that will be updated. There may be other maps needed by HCD; these requests will emerge throughout the year. CSD's CDBG program has access to ArcView through enterprise licensing from GIS; they may request consulting support during the year. HCD is acquiring a third enterprise license access as well.
Interdependencies	Availability of updated data and budget from HCD, HFP, CDBG.
Status	TBD
Target	HCD updates will be needed in first half of 2011. CDBG program requirements will vary.
Activity	<ul style="list-style-type: none"> <li>▪ Acquire updated information from sources.</li> <li>▪ Request map updates or GIS consulting services.</li> </ul>

Name	<b>MHCADSD – New Maps and Updates for MH (MEDIUM – ONGOING)</b>
Description	MHCADSD requires an annual update to three existing maps, and new maps. Updates: 1) Urban/Rural areas with outpatient mental health providers; 2) Outpatient mental health providers with client density by zip code; 3) Two maps that

	show urban/rural areas and outpatient mental health providers, with added layer to show the density by ZIP code of Medicaid enrollees. For all of these maps, the provider list needs to be updated to include <u>all</u> provider service sites, not just main/administrative site for each contracted and subcontracted provider.
Interdependencies	Availability of updated provider sites and Medicaid enrollment data from MHCADSD.
Status	TBD
Target	End of first quarter 2011 for updates; new maps as defined throughout the year.
Activity	<ul style="list-style-type: none"> <li>▪ Acquire updated information from sources.</li> <li>▪ Request maps.</li> </ul>

Name	<b>MHCADSD Chemical Dependency Updates for 2011 (MEDIUM – ONGOING)</b>
Description	In preparation for 2011, update the four existing maps: 1) All CD treatment provider and prevention program locations; 2) All CD treatment providers and CSOs; 3) All CD treatment providers and community health clinics; 4) Youth CD treatment providers, prevention program locations and schools.
Interdependencies	Availability of updated provider site, clinic, schools and other data.
Status	TBD
Target	First half of 2011.
Activity	<ul style="list-style-type: none"> <li>▪ Acquire updated information from sources.</li> <li>▪ Request maps.</li> </ul>

Name	<b>Support DCHS Department Programs (LOW – ONGOING)</b>
Description	To support 2011 DCHS programs by the DCHS Director and Division Directors, including AIMs High, King County Scorecard, and KingStat, DCHS may require maps on an ad hoc basis that provide information adjunct to the actual program and/or business plan performance measures chosen for presentation.
Interdependencies	TBD
Status	Status is ongoing.
Target	TBD
Activity	<ul style="list-style-type: none"> <li>▪ Identify which program performance measures could benefit from an accompanying map.</li> <li>▪ Define the desired map and collect source data from division(s) as appropriate.</li> <li>▪ Transmit request for service to GIS.</li> </ul>

#### **4.18.3 Data Enhancement and Development**

- None planned at this time.

#### **4.18.4 Application Enhancement and Development**

- None planned at this time.

#### **4.18.5 Hardware, Software, Database, and Licensing Changes**

- There are two ArcView workstation licenses utilizing the enterprise managed software for the CDBG program within HCD. No further changes planned for 2011.

#### **4.18.6 Staffing Changes**

- None planned at this time.

#### **4.18.7 Other Changes**

- None planned at this time.



## 5 Appendix A: Summary Information

### 5.1 Staffing

#### 5.1.1 KCGIS Center

Working Title	Focus	Class	Status	% GIS
KCGIS Center Manager	Staff management and organization, program oversight and strategic planning	IT Enterprise Mgr. II	FTE	100
GIS Finance and Marketing Manager	Budget, financial control, marketing	IT Project Mgr. II	FTE	100
GIS Enterprise Services Manager / PRD and SWD GIS Program Manager	Contracts administration, external data acquisition / GIS program management for PRD and SWD	IT Supervisor I	FTE	100
Office Manager	Administrative and office services	Administrator II	FTE	100
GIS Data Coordinator	Data management and coordination	IT Project Mgr. II	FTE	100
GIS Application Developer	Web and front-end applications	GIS Spec. – Master	FTE	100
GIS Application Developer	Web and front-end applications	GIS Spec. – Master	FTE	100
System Administrator	Server, network, and desktop administration	LAN Admin. – Master	FTE	100
GIS Database Administrator	Database administration, SQL Server, ArcSDE	GIS Spec. – Senior	FTE	100
GIS Analyst	Cadastral data coordination	GIS Spec. – Journey	FTE	100
Client Services Manager	Client Services program management	IT Supervisor I	FTE	100
GIS Analyst	Publication cartography	GIS Spec. – Senior	FTE	100
GIS Training Coordinator	GIS training services	GIS Spec. – Journey	FTE	100
GIS Analyst	Client Services project support and GIS training services	GIS Spec. – Journey	0.8 FTE	100
GIS Analyst	Client Services project support	GIS Spec. – Journey	FTE	100
GIS Analyst	Client Services project support and matrix support to PRD	GIS Spec. – Journey	FTE	75#
GIS Analyst	Client Services project support / KingStat support	GIS Spec. – Journey	FTE	100
GIS Programmer	Matrix support to RSD	GIS Spec. – Master	FTE	#
GIS Analyst	Matrix support to RSD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to WTD	GIS Spec. – Senior	FTE	#

Working Title	Focus	Class	Status	% GIS
GIS Analyst	Matrix support to WTD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to WTD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to WLRD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to WLRD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to WLRD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to PRD and SWD	GIS Spec. – Journey	FTE	#
GIS Analyst	Matrix support to PRD and SWD / Client Services project support	GIS Spec. – Senior	FTE	25#
GIS Analyst	Client services support to WTD	GIS Spec. – Entry	TLT	#

# For matrixed and loan out positions, % GIS is proportioned to each supported agency's staffing table

### 5.1.2 Department of Assessments

Working Title	Focus	Class	Status	% GIS
GIS Specialist	GIS	GIS Spec. – Senior	FTE	75
Cartographer	Cadastral maintenance and other department maintained layers	GIS Spec. – Journey	FTE	95
Cartographer	Cadastral maintenance and other department maintained layers	GIS Spec. – Journey	FTE	95
Cartographer	Cadastral maintenance	GIS Spec. – Entry	FTE	95
Cartographer	Cadastral maintenance	GIS Spec. – Entry	FTE	95
Cartographer	Cadastral maintenance	GIS Spec. – Entry	FTE	95
Various – Appraisers, programmers	Analysis, implementation and application development	Various	FTE	⊗

⊗ Difficult to quantify

### 5.1.3 Department of Development and Environmental Services

Working Title	Focus	Class	Status	% GIS
IS Section Manager	Staff supervision, program management, GIS/IS integration	IT Manager	FTE	25
Lead GIS Analyst	Task coordination, data development, data documentation, county wide GIS coordination, data analysis, map production, end user education, application design	GIS Spec. – Master	FTE	100

### 5.1.4 DES – Emergency Management Division

Working Title	Focus	Class	Status	% GIS
E-911 PSAP Mapping Administrator	Support GIS mapping for the E-911 Program Office and 12 PSAPs	GIS Spec. – Senior	FTE	100
E-911 PSAP Mapping Analyst	Support the E-911 GIS Mapping Administrator, E-911 Office, and 12 PSAPs	GIS Spec. – Journey	FTE	100

### 5.1.5 DES –Facilities Management Division

- No dedicated GIS staff.

### 5.1.6 DNRP – Wastewater Treatment Division

Working Title	Focus	Class	Status	% GIS
GIS Analyst§	Combined Sewer Overflows program, operations and maintenance, Web applications, database development	GIS Spec. – Senior	FTE	100#
GIS Analyst§	Water Reuse program, Brightwater, Biosolids	GIS Spec. – Senior	FTE	100#
GIS Analyst§	Conveyance System Improvements projects. I/I Initial project, Web data/application viewer	GIS Spec. – Senior	FTE	100#
GIS Analyst	Decennial Flow Monitoring Project, Storm Drain System Management, Local Line Development	GIS Spec. – Entry	TLT	100#

§ Matrixed from KCGIS Center

# For matrixed and loan out positions, % GIS is proportioned to each supported agency's staffing table KCGIS Center Client Services loan out

### 5.1.7 DNRP – Water and Land Resources Division

Working Title	Focus	Class	Status	% GIS
GIS Analyst§	Image processing, landcover classification, geoprocessing applications, general WLR GIS analysis projects	GIS Spec. – Senior	FTE	100#
GIS Analyst§	ArcIMS (iMap), ArcGIS Server and JSAPI Web applications, ASP.NET Web applications, general WLR GIS analysis projects and relational databases	GIS Spec. – Senior	FTE	100#

GIS Analyst§	Forestry, agriculture, land ownership, noxious weeds, current use assessment, open space and general WLR GIS analysis projects	GIS Spec. – Senior	FTE	100#
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§ Matrixed from KCGIS Center

# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

### 5.1.8 DNRP – Parks and Recreation Division

Working Title	Focus	Class	Status	% GIS
GIS Analyst§	Parks and Recreation database maintenance, data analysis, map design and production, Web services, and application development	GIS Spec. – Senior	FTE	25#
GIS Analyst§	Parks and Recreation database maintenance, data analysis, map design and production	GIS Spec. – Journey	FTE	50#
GIS Analyst§	Parks and Recreation database maintenance, data analysis, map design and production, and application development	GIS Spec. – Journey	FTE	25#

§ Matrixed from KCGIS Center

# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

### 5.1.9 DNRP – Solid Waste Division

Working Title	Focus	Class	Status	% GIS
GIS Analyst§	Solid Waste database maintenance, data analysis, map design and production, Web services, and application development	GIS Spec. – Senior	FTE	50#
GIS Analyst§	Solid Waste database maintenance, data analysis, and map design and production	GIS Spec. – Journey	FTE	50#

§ Matrixed from KCGIS Center

# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

### 5.1.10 Department of Public Health

Working Title	Focus	Class	Status	% GIS
EMS Program Manager	Data analysis, project management, map production	Project/Program Manager II	FTE	40
Epidemiologist	Data analysis, project management, map production	Epidemiologist II	FTE	30

### 5.1.11 DOT – Roads Services Division

Working Title	Focus	Class	Status	% GIS
Budget and Technology Management Office Manager (BTMO)	Budget and financial planning and IT management	Manager	FTE	5
Division IT Program Coordinator	Managing information systems in the Road Services Division	IT Supervisor I	FTE	10
Division GIS Manager	Develop and coordinate GIS for the Roads Services Division	IT Program Manager II	FTE	80
Road Services – BTMO	Application development	GIS Spec. – Master	FTE	100
Road Services – BTMO	Data modeling and analysis	GIS Spec. – Senior	FTE	100
Road Services – BTMO	Map production and data development and analysis	GIS Spec. – Journey	FTE	100
Road Services – BTMO	Data development and analysis	GIS Spec. – Entry	FTE	100
GIS Analyst§	Data modeling and application development	GIS Spec. – Master	FTE	100#
GIS Analyst§	Data development	GIS Spec. – Journey	FTE	100#

§ Matrixed from KCGIS Center

# For matrixed positions, % GIS is proportioned to each supported agency's staffing table

### 5.1.12 DOT – Information Technology

Working Title	Focus	Class	Status	% GIS
GIS Manager	Team lead, operations coordination, DOT IT liaison, training	IT Project Manager I	FTE	100
GIS Database Administrator	Geodatabase, shape, ArcSDE administration, and GIS-to-Oracle interfacing	GIS Spec – Senior	FTE	100
GIS Master Application Developer	System architecture, application development and coordination	App. Dev. – Master	FTE	100
GIS Application Developer	Application development	GIS Spec. – Senior	FTE	100
GIS Analyst	Data maintenance, map production, data analysis, software installation	GIS Spec – Journey	FTE	100

### 5.1.13 DOT – King County International Airport

Working Title	Focus	Class	Status	% GIS
Business Analyst	Map production, data analysis, data maintenance, and GIS coordination.	Project/Program Manager III	FTE	30

### 5.1.14 King County Elections

Working Title	Focus	Class	Status	% GIS
GIS Supervisor	Coordination of GIS and other activities for the department	GIS Spec. – Senior	FTE	75
GIS Analyst	Data development, data integration, data maintenance	GIS Spec. – Journey	FTE	90
GIS Analyst	Data integration, data maintenance, map production and GIS analysis	GIS Spec. – Journey	FTE	90
GIS Analyst	Data integration, data maintenance, map production, GIS analysis	GIS Spec. – Entry	TLT	50
GIS Analyst	Analysis and mapping for 2012 redistricting	GIS Spec. – Entry	TLT	50

### 5.1.15 King County Sheriff's Office

Working Title	Focus	Class	Status	% GIS
RP&IS Supervisor	Research/planning, information/data systems planning and management, supervision, crime analysis	Research and Technology Supervisor	FTE	15
Crime Analyst	Crime analysis and mapping	Project/Program Manager II	FTE	15
Crime Analyst	Crime analysis and mapping	Project/Program Manager II	FTE	15
Crime Analyst	Crime analysis and mapping	Project/Program Manager II	FTE	15
GIS Specialist	CAD system support, data maintenance	GIS Spec. – Journey	FTE	90

### 5.1.16 Metropolitan King County Council

Working Title	Focus	Class	Status	% GIS
GIS Coordinator	Assist staff in utilizing GIS, liaison between Council and broader GIS community, coordinate training, procure needed data, route requests, enlist help of other departments or KCGIS Center as needed.	Legislative Analyst	FTE	5

### 5.1.17 Office of Performance, Strategy and Budget

Working Title	Focus	Class	Status	% GIS
Analyst / GIS Manager	Data analysis, project	PPM III	FTE	60

Working Title	Focus	Class	Status	% GIS
	management			

**5.1.18 Department of Community and Human Services**

Working Title	Focus	Class	Status	% GIS
DCHS Coordinator	Department/division performance measures, as reflected in annual business plan, KingStat, AIMS High, DCHS Annual Report, other communication and presentations. GIS role is limited to coordination with other division programs in the annual DCHS GIS O&M work plan, and representing DCHS on the GIS Technical Committee	Functional Analyst III	FTE	10



## 5.2 Budget

### 5.2.1 KCGIS Center

Item	O&M and Client Services	Matrix GIS Staff Unit	Combined KCGIS Center	Comments
Labor Costs (salary + benefits)	\$2,259,500	\$1,383,366	\$3,642,866	
Hardware (acquisition and maintenance)	\$68,183	\$6,874	\$75,057	
Software (acquisition and maintenance)	\$132,628	\$19,961	\$152,589	
Training Costs	\$21,949	\$13,061	\$35,010	
Discretionary (consultants, outside services, materials, etc.)	\$282,495	\$13,860	\$296,355	Includes \$200,000 allocated to the aerial imagery replacement fund. Includes \$64,630 appropriation authority for cost reimbursable client services expenses.

### 5.2.2 Department of Assessments

Item	Budget	Comments
Labor Costs (salary + benefits)		
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)	\$26,827	
Training Costs		
Discretionary (consultants, outside services, materials, etc.)	\$69,472	Budget for KCGIS Center Client Services support. Amount provided by KCGIS Center.

### 5.2.3 Department of Development and Environmental Services

Item	Budget	Comments
Labor Costs (salary + benefits)	\$278,287	Fully loaded cost (1.00 FTE plus 0.25 of manager)
Hardware (acquisition and maintenance)	\$19,083	Based on 1/3 proportion of general IS hardware costs.
Software (acquisition and maintenance)	\$41,015	Based on 1/3 proportion of general IS software costs plus GIS specific software.
Training Costs	\$0	Based on 1/3 proportion of IS training budget.

Item	Budget	Comments
Discretionary (consultants, outside services, materials, etc.)	\$9,400	\$8,400 budgeted for Client Services from the KCGIS Center. Remainder for miscellaneous supplies.

#### 5.2.4 DES – Emergency Management Division

Item	Budget	Comments
Labor Costs (salary + benefits)	\$227,674	One FTE GIS Administrator position and one FTE GIS Analyst position.
Hardware (acquisition and maintenance)	\$12,430	Mapping servers.
Software (acquisition and maintenance)	\$285,099	Software purchased to support E-911 GPS Address project and PSAP CAD maps.
Training Costs	\$6,000	GIS staff and PSAP employee training for mapping.
Discretionary (consultants, outside services, materials, etc.)	\$16,640	Budget for KCGIS Center Client Services support.

#### 5.2.5 DES –Facilities Management Division

Item	Budget	Comments
Labor Costs (salary + benefits)		
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training Costs		
Discretionary (consultants, outside services, materials, etc.)	\$25,742	Budget for KCGIS Center Client Services.

#### 5.2.6 DNRP – Wastewater Treatment Division

Item	Budget	Comments
Matrix Labor Costs (salary + benefits)	\$492,772	Includes cost for 3.00 FTE plus allocated portion of KCGIS Center management and administrative labor costs.
Hardware (acquisition and maintenance)	\$2,062	
Software (acquisition and maintenance)	\$5,446	
Training Costs	\$3,918	
Discretionary (consultants, outside services, materials, etc.)	\$167,116	Includes \$164,062 for KCGIS Center Client Services

Item	Budget	Comments
services, materials, etc.)		support and \$3,054 for miscellaneous supplies and services.

### 5.2.7 DNRP – Water and Land Resources Division

Item	Budget	Comments
Matrix Labor Costs (salary + benefits)	\$413,984	Includes cost for 3.00 FTE plus allocated portion of KCGIS Center management and administration labor costs.
Hardware (acquisition and maintenance)	\$2,062	
Software (acquisition and maintenance)	\$7,253	
Training Costs	\$3,918	
Discretionary (consultants, outside services, materials, etc.)	\$4,806	For miscellaneous supplies and services.

### 5.2.8 DNRP – Parks and Recreation Division

Item	Budget	Comments
Labor Costs (salary + benefits)	\$126,512	Includes cost for 1.0 FTE plus allocated portion of KCGIS Center management and administration labor costs.
Hardware (acquisition and maintenance)	\$687	
Software (acquisition and maintenance)	\$0	
Training Costs	\$0	
Discretionary (consultants, outside services, materials, etc.)	\$33,483	Includes \$32,864 for KCGIS Center client services support and \$619 for miscellaneous supplies and services.

### 5.2.9 DNRP – Solid Waste Division

Item	Budget	Comments
Labor Costs (salary + benefits)	\$127,132	Includes cost for 1.00 FTE plus allocated portion of KCGIS Center management and administration labor costs.
Hardware (acquisition and maintenance)	\$764	
Software (acquisition and	\$2,017	

Item	Budget	Comments
maintenance)		
Training Costs	\$1,451	
Discretionary (consultants, outside services, materials, etc.)	\$1,131	Includes costs for miscellaneous supplies and services.

### 5.2.10 Department of Public Health

Item	Budget	Comments
Labor Costs (salary + benefits)		
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training Costs		
Discretionary (consultants, outside services, materials, etc.)	\$20,488	Budget for Client Services support from the KCGIS Center, split \$15,184 for Low Org 8011, and \$5,304 for Low Org 5804.

### 5.2.11 DOT – Roads Services Division

Item	Budget	Comments
Labor Costs (salary + benefits)	\$643,857	Budget and Technology Manager salary not included.
Hardware (acquisition and maintenance)	\$1375	
Software (acquisition and maintenance)	\$3,631	
Training Costs	\$2,612	
Discretionary (consultants, outside services, materials, etc.)	\$2,036	

### 5.2.12 DOT – Information Technology

Item	Budget	Comments
Labor Costs (salary + benefits)	\$797,871	Operating (6.0 FTE).
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		Software maintenance on GIS licensing and license monitoring software. (This is now covered at the section level and not reflected in our budget.)

Item	Budget	Comments
Training Costs	\$10,000	Includes GIS local conferences and other technical training.
Discretionary (consultants, outside services, materials, etc.)		

### 5.2.13 DOT – King County International Airport

Item	Budget	Comments
Labor Costs (salary + benefits)	\$20,904	Approximate labor costs for 0.30 FTE Business Analyst.
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training Costs		
Discretionary (consultants, outside services, materials, etc.)	\$26,624	Budget for client services from the KCGIS Center.

### 5.2.14 King County Elections

Item	Budget	Comments
Labor Costs (salary + benefits)	\$480,491	
Hardware (acquisition and maintenance)	\$31,980	
Software (acquisition and maintenance)	\$14,400	
Training Costs	\$9,900	
Discretionary (consultants, outside services, materials, etc.)	\$31,802	Includes \$8,632 for KCGIS Center client services.

### 5.2.15 King County Sheriff's Office

Item	Budget	Comments
Labor Costs (salary + benefits)	\$94,943	Based on 2010 benefit estimates.
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)	\$4,599	
Training Costs	\$2,000	Up to \$2,000 per year for training for the CAD GIS FTE.

Item	Budget	Comments
Discretionary (consultants, outside services, materials, etc.)		

### 5.2.16 Metropolitan King County Council

Item	Budget	Comments
Labor Costs (salary + benefits)		
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training Costs		
Discretionary (consultants, outside services, materials, etc.)	\$25,792	Budget for Client Services support from the KCGIS Center.

### 5.2.17 Office of Performance, Strategy and Budget

Item	Budget	Comments
Labor Costs (salary + benefits)	\$64,000	Approximate labor cost for dedicated 0.7 FTE GIS analyst.
Hardware (acquisition and maintenance)	\$2,500	Assume one quarter of OSPPM office supplies budget for GIS maintenance supplies (ink and paper).
Software (acquisition and maintenance)		No specific software budget.
Training costs	\$500	Approximate portion of PMAG's 2009 training budget for GIS.
Discretionary (consultants, outside services, materials, etc.)	\$35,041	PSB Budget for KCGIS Center Client Services is \$21,560

### 5.2.18 Department of Community and Human Services

Item	Budget	Comments
Labor Costs (salary + benefits)		Because GIS is not recognized as a distinct function, financial resources for GIS related labor, hardware, software, and training are not allocated separately within DCHS. Labor costs for GIS-related activity is included in the normal staff functions of the limited DCHS staff members who do this work. Hardware, software, consulting, and training costs are funded on an as-needed basis from divisions. The only exception is the separate GIS overhead budget representing DCHS' share of GIS
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training costs		

Item	Budget	Comments
		infrastructure costs.
Discretionary (consultants, outside services, materials, etc.)	\$0	No funding is allocated to KCGIS Center Client Services in the 2011 DCHS budget. However, \$37,481 (as of December 2010) has been prepaid to Client Services to fund work requested in 2011.



### 5.3 Licensing

Software Licensing (counts by agency)	<u>KCGIS Center</u> *	Assessments	<u>DDES</u>	DES – EMD **	DES – FMD	<u>DNRP – WTD</u>	<u>DNRP – WLRD</u>	<u>DNRP – PRD</u>	<u>DNRP – SWD</u>	Public Health	<u>DOT – Roads</u>	<u>DOT – IT</u>	DOT – Airport	<u>KC Elections</u>	KCSO	KC Council	OSPPM	<u>DCHS</u>
ArcGIS – ArcView	39	16	-	4	1	-	-	-	-	8	-	-	2	-	5	-	-	-
ArcGIS – ArcEditor	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – ArcInfo	49	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – 3D Analyst	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Spatial Analyst	12	-	-	1	-	-	-	-	-	-	-	-	-	-	5	-	-	-
ArcGIS – Network Analyst	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Geostatistical Analyst	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Survey Analyst	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Tracking Analyst	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Image Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – COGO	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Data Interoperability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Publisher	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maplex for ArcGIS	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Server	3	-	4	1	-	-	-	-	-	-	1	2	-	-	-	-	-	-
ArcGIS – Engine	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ArcPad	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
ArcPad – Application Builder	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
ArcView 3.x	11	-	20	-	-	26	15	-	-	4	34	30	-	1	4	2	1	-
MapObjects – Developers Kits	1	1	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
MapObjects – Deployments	20	20	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-

\* Figures include desktop concurrent-use licenses which have been transferred from individual agencies to the KCGIS Center as part of the ESRI software license consolidation initiative. Agencies which have contributed licenses under this initiative are shown above with their names underlined.

\*\* Includes licenses held by E-911 Program Office and RCECC.



### 5.4 Maintained Data Enterprise Vector and Tabular Data

- This table contains listings of vector and tabular data stored in the King County Spatial Data Warehouse (SDW). It is sorted on the Steward Agency column to mirror the order of Section 4.

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
ADDRDDES	Unincorporated King County parcel addresses business table	Weekly	Table	KCGIS Center	No
ADDRESS_POINT_ONE_ADDRESS_GCS	Address Locator for ADDRESS_POINT	Quarterly	Address Locator	KCGIS Center	No
ADDRKCA	Incorporated areas (cities) parcel address business table	Weekly	Table	KCGIS Center	No
ADDRMERGE	Compilation (Merge) of KCA and DDES situs addresses	Weekly	Table	KCGIS Center	No
ALLEXTENTS	King County Image/Raster Dataset Extents	As needed	Vector	KCGIS Center	No
APTCOMPLEX_EXTR	Apartment complex Assessor extract table	Weekly	Table	KCGIS Center	No
APTCOMPLEX_REPORT_VIEW	Tabular view based on Assessor apartment complex property information	Weekly	Table	KCGIS Center	No
BLKGRP00	Census 2000 Block Groups	None planned	Vector	KCGIS Center	Yes
BLKGRP00_SHORE	Census 2000 Block Groups	None planned	Vector	KCGIS Center	No
BLKGRP00_SHORE_CENTER	Feature Centers of 2000 Census Block Groups	None planned	Vector	KCGIS Center	No
BLOCKGRP	1990 Block Groups	None planned	Vector	KCGIS Center	No
BLOCKNET	Census 1990 Blocks	None planned	Vector	KCGIS Center	No
BLOCKS00	Census 2000 Blocks	None planned	Vector	KCGIS Center	Yes
CADASTRALPARCEL_GRP	King County Cadastral; Parcel annotation and PLSS base	As needed	Group LYR File	KCGIS Center	No
CITY_3CO	Incorporated areas of King; Snohomish; and Pierce Counties	As needed	Vector	KCGIS Center	No
CITY_3CO_UNINC	Incorporated areas of King; Snohomish; and Pierce Counties; plus Unincorporated Areas	As needed	Vector	KCGIS Center	No
CITY_CODES_HEALTH	Decode table for jurisdiction abbreviations	As needed	Table	KCGIS Center	No
COMMBLDG_EXTR	Commercial Building Assessor extract table	Weekly	Table	KCGIS Center	No
COMMBLDG_REPORT_VIEW	Tabular view based on Assessor commercial building property information	Weekly	Table	KCGIS Center	No
COMMBLDGFEATURE_EXTR	Commercial Building Section Feature Assessor extract table	Weekly	Table	KCGIS Center	No
COMMBLDGSECTION_EXTR	Commercial Building Section Assessor extract table	Weekly	Table	KCGIS Center	No
COMMON_INTEREST	Common Points of Interest for King	As needed	Vector	KCGIS Center	Yes

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
	County				
COMMON_INTEREST_POINT_SYM BOLS	Common Points of Interest - Symbolized	As needed	Vector	KCGIS Center	No
COMPOSITE_LOCATOR_GCS	Composite Address Geocoding Service	Quarterly	Table	KCGIS Center	No
CONDOCOMPLEX_EXTR	Condominium complex Assessor extract table	Weekly	Table	KCGIS Center	No
CONDOCOMPLEX_REPORT_VIEW	Tabular view based on Assessor condominium complex property information	Weekly	Table	KCGIS Center	No
CONDOUNIT_EXTR	Condominium Unit Assessor extract table	Weekly	Table	KCGIS Center	No
CONDOUNIT_REPORT_VIEW	Tabular view based on Assessor condominium unit property information	Weekly	Table	KCGIS Center	No
CONT100	100 Foot contour lines	None planned	Vector	KCGIS Center	No
CONT20	20 Foot Contour Lines	None planned	Vector	KCGIS Center	No
CONT50	50 Foot Contour Lines	None planned	Vector	KCGIS Center	No
CONTOUR005	Five (5) foot-interval index contour isolines	Irregular	Vector	KCGIS Center	No
CONTOUR005_LINE_10FTONLY	Ten (10) foot-interval index contour isolines - complete county extent	As needed	Vector	KCGIS Center	No
CONTOUR020	Twenty (20) foot-interval index contour isolines - complete county extent	None planned	Vector	KCGIS Center	No
CONTOUR020C	20 Foot Index Contours - Central Area	As needed	Vector	KCGIS Center	Yes
CONTOUR020N	20 Foot Index Contours - North Area	As needed	Vector	KCGIS Center	Yes
CONTOUR020S	20 Foot Index Contours - South Area	As needed	Vector	KCGIS Center	Yes
CONTOUR040	40 Foot Index Contours	As needed	Vector	KCGIS Center	No
CONTOUR050	50 Foot Index Contours	As needed	Vector	KCGIS Center	No
CONTOUR100	100 Foot Index Contours	As needed	Vector	KCGIS Center	Yes
CURRENT_TAXROLL_YEAR	Current year tax roll business table	As needed	Table	KCGIS Center	No
DGM_SOURCE	King County Digital Ground Model Data Sources	As needed	Vector	KCGIS Center	Yes
ELEV_TRANS_STRUCTURE	Elevated Transportation Structures	Annually	Vector	KCGIS Center	No
ENVIRONMENTALRESTRICTION_EXTR	Environmental Restrictions Assessor extract table	Weekly	Table	KCGIS Center	No
FAZ	1990 Forecast Analysis Zones	None planned	Vector	KCGIS Center	No
IDLINK_BLKGRP_PLACE	Relationship table between census BLKGRP and PLACE identifiers	None planned	Table	KCGIS Center	No
IDLINK_TRACTS_PLACE	Relationship table between census TRACT and PLACE identifiers	None planned	Table	KCGIS Center	No
IDXP7500	IDXP7500 - 7500-ft Tiling Index for King County Raster Data	As needed	Vector	KCGIS Center	Yes
IDXPTRMBR	IDXPTRMBR - Township Tiling Index for King County Raster Data	As needed	Vector	KCGIS Center	Yes

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
IDXPTRMID	IDXPTRMID - MBR MidLineTiling Index for King County Raster Data	As needed	Vector	KCGIS Center	No
IDXPTRNEAT	IDXPTRNEAT - PLSS Township-RangeTiling Index for King County Raster Data	As needed	Vector	KCGIS Center	No
IDXPZONE	IDXPZONE - Zone Level Tiling Index for King County Raster Data	None planned	Vector	KCGIS Center	No
JURIS_KCADISTRICTNAME	City name code look-up table	As needed	Table	KCGIS Center	No
KCZIPCODE	US Post Office zip code extract table	Monthly	Table	KCGIS Center	No
KEY_INTEREST	Key Interest Points of Interest	As needed	Vector	KCGIS Center	No
KINGCO	King County Political Boundary (no waterbodies)	Irregular	Vector	KCGIS Center	Yes
KINGSH	Washington Counties (no water)	Irregular	Vector	KCGIS Center	Yes
KROLLIDX	Kroll Map Page Index	As needed	Vector	KCGIS Center	No
LEVYDISTXREF_EXTR	Levy Code to District Cross-Reference Assessor extract table	Weekly	Table	KCGIS Center	No
LOOKUP_EXTR	Record Lookup Assessor extract table	Weekly	Table	KCGIS Center	No
MEDICAL_FACILITIES	Medical Facilities including Hospitals	Annually	Vector	KCGIS Center	Yes
MTPEAKS	Mountain Peaks with Elevations	As needed	Vector	KCGIS Center	Yes
MUN_WSHD	Municipal Watershed	As needed	Vector	KCGIS Center	Yes
OBLIQUE_IMAGE07	Index to 2007 Pictometry oblique images	None planned	Vector	KCGIS Center	No
OBLIQUE_IMAGE09	Index to 2009 Pictometry oblique images	None planned	Vector	KCGIS Center	No
OPPIPES	Olympic Pipeline	None planned	Vector	KCGIS Center	Yes
ORTHO_IMAGE07	Index to 2007 Pictometry vertical (nadir) images	None planned	Vector	KCGIS Center	No
ORTHO_IMAGE09	Index to 2009 Pictometry vertical (nadir) images	None planned	Vector	KCGIS Center	No
ORTHO_INDEX	Extents index to Project Image Library Orthoimagery	As needed	Vector	KCGIS Center	No
PARCEL_COMMONDATA_AREA_VIEW	Parcels with Commonly-Used Attributes	Weekly	Vector	KCGIS Center	No
PARCEL_EXTR	Parcel Record Assessor extract table	Weekly	Table	KCGIS Center	No
PARCEL_HEALTH_VIEW	Tabular view providing relationship between individual parcels (PINs) and city jurisdictions	Weekly	Table	KCGIS Center	No
PARCEL_PRESENTUSE_AREA_VIEW	Spatial view showing Parcels linked to Present Use code from PARCEL_EXTR	Weekly	Vector	KCGIS Center	No
PARCEL_REPORT_VIEW	Tabular view based on Assessor parcel property information	Weekly	Table	KCGIS Center	No
PARCEL_RPACCT_MAXBILLYR_AREVIEW	Spatial view showing parcels that have been billed for taxes during most recent (current or maximum) billing year	As needed	Vector	KCGIS Center	No
PARCEL_SALES3YR	Parcel sales history - last 3 years	Weekly	Vector	KCGIS Center	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
PARCELLEGALDESC_EXTR	Parcel Legal Description Assessor extract table	Weekly	Table	KCGIS Center	No
PERSONALPROPERTY_EXTR	Personal property Assessor extract table	Annually	Table	KCGIS Center	No
PHOTO_CONTROL	Orthophoto Ground Control Locations and Image Error Calculations	As needed	Vector	KCGIS Center	Yes
PIN_ADDRESS	Parcel with street address	Weekly	Vector	KCGIS Center	No
PIN_ADDRESS_ONE_ADDRESS_GCS	Address Locator for PIN_ADDRESS (Tax Parcel with address information)	Quarterly	Address Locator	KCGIS Center	No
PIN_ADDRESS_PIN_GCS	Geocator for PIN_ADDRESS based on PIN	Continually	Address Locator	KCGIS Center	No
PLACE	Census 1990 Places	None planned	Vector	KCGIS Center	No
PLACE00	2000 Census Places	As needed	Vector	KCGIS Center	No
PLATFILE_EXTR	Plat File Assessor extract table	Weekly	Table	KCGIS Center	No
PLSS_QTR	Public Land Survey Quarter Sections - 3 county area	None planned	Vector	KCGIS Center	Yes
PLSS_SEC	Public Land Survey Sections - 3 county area	None planned	Vector	KCGIS Center	No
PLSS_TWN	Public Land Survey System Townships - 3 county area	None planned	Vector	KCGIS Center	No
PUBHEALTH_ALL_INDICATORS	Business table of public health indicator values based on census information White Center area; Blvd Park and Seattle	As needed	Table	KCGIS Center	No
PUBHEALTH_BLKGRP_CONF	Public health indicator values based on census block group data.	As needed	Table	KCGIS Center	No
PUBHEALTH_BLKGRP_DATA	Public health indicator values based on census block group data.	As needed	Table	KCGIS Center	No
PUBHEALTH_INDICATORS	Business table of public health indicator values based on census information White Center area	As needed	Table	KCGIS Center	No
PUBHEALTH_PLACE_CI	Public health indicator values based on census place data.	As needed	Table	KCGIS Center	No
PUBHEALTH_PLACE_NP	Public health indicator values based on census place data.	As needed	Table	KCGIS Center	No
PUBHEALTH_TRACT_CONF	Public health indicator values based on census tract data.	As needed	Table	KCGIS Center	No
PUBHEALTH_TRACT_DATA	Public health indicator values based on census tract data.	As needed	Table	KCGIS Center	No
RASTSTAT_7500	7500-FT Tiling Status for KC Raster Datasets	As needed	Vector	KCGIS Center	No
RASTSTAT_TRMBR	Township-Range Tiling Status for KC Raster	As needed	Vector	KCGIS Center	No
REG_PSCTR020	Puget Sound 20-Foot Contours	None planned	Vector	KCGIS Center	No
RESBLDG_EXTR	Residential Building Assessor extract table	Weekly	Table	KCGIS Center	No
RESBLDG_REPORT_VIEW	Tabular view based on Assessor	Weekly	Table	KCGIS Center	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
	residential building property information				
ROAD_GRADIENT	Steep Gradient on Roadways	Annually	Vector	KCGIS Center	No
RPACCT_2005_VIEW	Tabular view based on Assessor extract table RPACCT_EXTR for those properties maximum billing year was 2005	None planned	Table	KCGIS Center	No
RPACCT_EXTR	Real Property Tax Account Assessor extract table	Weekly	Table	KCGIS Center	No
RPACCT_MAXBILLYR	Business table created from RPACCT_MAXBILLYR_VIEW for use in web applications to performance over view	Weekly	Table	KCGIS Center	No
RPACCT_MAXBILLYR_VIEW	Tabular view based on Assessor extract table RPACCT_EXTR that shows those that have been billed during the current (i.e.; most current or maximum) billing year	Weekly	Table	KCGIS Center	No
RPACCT_VIEW	Tabular view relating RPACCT_MAXBILLYR and RPSALE_VIEW	Weekly	Table	KCGIS Center	No
RPSALE_EXTR	Real Property Sale Record Assessor extract table	Weekly	Table	KCGIS Center	No
RPSALE_VIEW	Tabular view relating Assessor extract table RPSALE_EXTR and LOOKUP_EXTR	Weekly	Table	KCGIS Center	No
SCHSITE	School locations	As needed	Vector	KCGIS Center	Yes
SF1_BLK00_H_DAT	Census 2000 Block Level housing data	None planned	Table	KCGIS Center	Yes
SF1_BLK00_P1_DAT	Census 2000 Block Level people data set 1	None planned	Table	KCGIS Center	Yes
SF1_BLK00_P2_DAT	Census 2000 Block Level people data set 2	None planned	Table	KCGIS Center	Yes
SF1_FIELDLIB_DAT	Census 2000 Field Library for SF 1 data	None planned	Table	KCGIS Center	Yes
SF1_GRP00_H_DAT	Census 2000 Block Group Level housing data	None planned	Table	KCGIS Center	Yes
SF1_GRP00_P1_DAT	Census 2000 Block Group level people data set 1	None planned	Table	KCGIS Center	Yes
SF1_GRP00_P2_DAT	Census 2000 Block Group level people data set 2	None planned	Table	KCGIS Center	Yes
SF1_TRT00_H_DAT	Census 2000 Tract level housing data	Quarterly	Table	KCGIS Center	Yes
SF1_TRT00_P1_DAT	Census 2000 Tract level people data set 1	None planned	Table	KCGIS Center	Yes
SF1_TRT00_P2_DAT	Census 2000 Tract level people data set 2	None planned	Table	KCGIS Center	Yes
SF3_FIELDLIB_DAT	Census 2000 Field Library for SF 3 data	None planned	Table	KCGIS Center	Yes
SF3_GRP00_H_DAT	Census 2000 Block Group level housing data	None planned	Table	KCGIS Center	Yes
SF3_GRP00_P_DAT	Census 2000 Block Group level people data	None planned	Table	KCGIS Center	Yes

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
SF3_TRT00_H_DAT	Census 2000 Tract level housing data	None planned	Table	KCGIS Center	Yes
SF3_TRT00_P_DAT	Census 2000 Tract level people data	None planned	Table	KCGIS Center	Yes
ST_ADDRESS	Street address	Quarterly	Vector	KCGIS Center	Yes
ST_ADDRESS_LINE_KC_FCC	ST_ADDRESS symbolized for Road Class	Quarterly	Vector	KCGIS Center	No
ST_ADDRESS_US_STREETS_GCS	Address Locator for ST_ADDRESS_LINE Style US Streets	Continually	Address Locator	KCGIS Center	No
ST_ADDRESS_US_STREETS_WZ ONE_GCS	Address Locator for ST_ADDRESS_LINE Style US Streets with Zone	Continually	Address Locator	KCGIS Center	No
ST_NAMES	Cross street names business table	As needed	Table	KCGIS Center	No
ST_NODE_XY	Cross street XY coordinate business table	As needed	Table	KCGIS Center	No
ST_NODES	Cross street node business table	As needed	Table	KCGIS Center	No
ST_TYPES	Street Types	Unknown	Table	KCGIS Center	No
STRZONES	King County Street Directional Zones	As needed	Vector	KCGIS Center	Yes
TAZ	Census 1990 Traffic Analysis Zones	None planned	Vector	KCGIS Center	No
TAZ00	Census 2000 Traffic Analysis Zones	None planned	Vector	KCGIS Center	Yes
THOM_BROS	Thomas Brothers Guide	None planned	Vector	KCGIS Center	No
THOM_BROS_RC	Thomas Brothers Guide - row/column	None planned	Vector	KCGIS Center	No
TRACT	Census 1990 Tracts	None planned	Vector	KCGIS Center	No
TRACTS00	Census 2000 Tracts	None planned	Vector	KCGIS Center	Yes
TRACTS00_SHORE	Census 2000 Tracts	None planned	Vector	KCGIS Center	No
VACANTLOT_EXTR	Vacant lot Assessor extract table	Weekly	Table	KCGIS Center	No
WASHCO	Washington Counties (no water)	Irregular	Vector	KCGIS Center	Yes
WASHCO_AREA_BOUNDONLY	Generalized representation of Washington state without interior county borders	As needed	Vector	KCGIS Center	No
WASHCO_LINE_OUTLINE	Cartographic representation of generalized outline of Washington state	As needed	Vector	KCGIS Center	No
WASHSH	Washington Counties (no water)	Irregular	Vector	KCGIS Center	Yes
WTRBDY	Open water for King County and portions of adjacent counties	Annually	Vector	KCGIS Center	Yes
WTRBDY_AREA_BIGWATER	Major open water and double-banked streams and rivers	Quarterly	Vector	KCGIS Center	No
WTRBDY_AREA_CARTO	Cartographic representation of Open Water features for King County and adjacent	As needed	Vector	KCGIS Center	No
WTRBDY_AREA_FEAT_TYPE	Open Water symbolized for feature	As needed	Vector	KCGIS Center	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
	type				
WTRBDY_CON	Waterbodies conflated to PARCEL	As needed	Vector	KCGIS Center	No
WTRBDY_CON_AREA_BIGWATER	Major Waterbodies conflated to PARCEL	As needed	Vector	KCGIS Center	No
WTRBDY_DET	Waterbodies with History and Jurisdictional detail	Quarterly	Vector	KCGIS Center	Yes
WTRBDY_DET_AREA_ISLANDS	Marine and Freshwater Islands from WTRBDY_DET_AREA	As needed	Vector	KCGIS Center	No
WTRBDY_WET	Wetland class excerpted from WTRBDY	As needed	Vector	KCGIS Center	No
ZIPCODE	King County Zip codes	As needed	Vector	KCGIS Center	Yes
ZIPCODE_CR	Carrier Routes and King County Zip Code Boundaries	As needed	Vector	KCGIS Center	No
ZIPCODE_SHORE	King County Zip codes	As needed	Vector	KCGIS Center	No
BOUNDARY	Cadastral (tax parcel) Boundary Line Features	Weekly	Vector	Assessments	No
CA1	King County Cadastral Annotation - Part 1 - Southwestern County	Weekly	Annotation	Assessments	No
CA2	King County Cadastral Annotation - Part 2 - City of Seattle	Weekly	Annotation	Assessments	No
CA3	King County Cadastral Annotation - Part 3 - Eastern King County; Island; and portion of northwest King County	Weekly	Annotation	Assessments	No
CITY_ANNEX	Cities with Pending Annexations and Annexation History	As needed	Vector	Assessments	No
CITYLEVY	City Levy	Unknown	Vector	Assessments	No
FIRELEVY	Fire Levy	Unknown	Vector	Assessments	No
KCACODE	Levy Code	Annually	Vector	Assessments	No
PARCEL	King County Parcels	Weekly	Vector	Assessments	Yes
PLSS	Public Land Survey System	As needed	Vector	Assessments	Yes
PLSS_CORNER	Public Land Survey System Index Corners	Irregular	Vector	Assessments	No
ROW	Right of Way	Weekly	Vector	Assessments	No
SCHLEVY	School Levy	Annually	Vector	Assessments	No
AGRPDDST	Agricultural Production District	As needed	Vector	DDES	No
BASIN_CONDITION	Environmental Condition of Basins	None planned	Vector	DDES	No
CHINBUFF	Buffer of Recorded Chinook Distribution in King County	None planned	Vector	DDES	No
CITY	King County Incorporated Areas	As needed	Vector	DDES	Yes
CITY_KC	Cities and Unincorporated King County	As needed	Vector	DDES	No
CITY_LUT	City Jurisdiction Lookup Table	None planned	Table	DDES	No
COALMINE	Coal Mine Hazards	As needed	Vector	DDES	Yes
CODE_RESTRICTION	Clearing Restriction Areas	As needed	Vector	DDES	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
COLSITE	Sites with Current or Grandfathered Mineral Extraction Rights	As needed	Vector	DDES	No
COMMUNITY_PLAN	Community Plan Area	None planned	Vector	DDES	Yes
COMPLU	Comprehensive Plan Land Use	Annually	Vector	DDES	Yes
DEMONSTRATION_PROJECT	Development Condition That Modifies Base Zoning	As needed	Vector	DDES	No
ERODE	Erosion Hazards	None planned	Vector	DDES	Yes
FORPDDST	Forest Production Districts	As needed	Vector	DDES	No
GROWTH_PATTERN	County Growth Patterns	As needed	Vector	DDES	No
HISTSITE	King County Historic Sites	None planned	Vector	DDES	Yes
HORSE_COMMUNITY	Equestrian Communities	None planned	Vector	DDES	No
INTRMPAA	Interim Potential Annexation Areas	As needed	Vector	DDES	No
KCADDRGRID	KC Addressing Grid	As needed	Vector	DDES	Yes
MPS	Mitigation Payment System	As needed	Vector	DDES	No
P_SUFFIX	P-Suffix Conditions	Annually	Vector	DDES	No
SANT	Sensitive Area Notice on Title Parcels	As needed	Vector	DDES	No
SAO_WETLAND	Sensitive Area Ordinance Wetland Areas	As needed	Vector	DDES	Yes
SAO_WETLAND_HYD	SAO Wetland Hydrology Lookup Table	None planned	Table	DDES	No
SAO_WETLAND_VEG	SAO Wetland Vegetation Lookup Table	None planned	Table	DDES	No
SAO_WETLAND_WLD	SAO Wetland Wilderness Lookup Table	None planned	Table	DDES	No
SAOSTREAM	Sensitive Area Ordinance Streams	None planned	Vector	DDES	No
SEISM	Seismic Hazards	None planned	Vector	DDES	Yes
SHORELINE_CONDITION	Marine Shoreline Environmental Conditions	None planned	Vector	DDES	No
SHORELINEMMP	King County Shoreline Management Master Program.	As needed	Vector	DDES	Yes
SLIDE	Landslide Hazard Areas	None planned	Vector	DDES	Yes
SPEC_DIST_OVERLAY	Special District Overlay	As needed	Vector	DDES	No
SPEC_DRAIN_REQ	Special Drainage Requirements	None planned	Vector	DDES	No
SSAQUIF	Sole Source Aquifer	None planned	Vector	DDES	No
TCMZONE	Roads Transportation Concurrency Mitigation Zone	As needed	Vector	DDES	No
TRIBAL_LANDS	Tribal Governance Areas	As needed	Vector	DDES	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
UAC	Unincorporated Area Council Boundaries	As needed	Vector	DDES	No
UPLOWTRIBBAS	Critical Areas Ordinance Basin Delineations	None planned	Vector	DDES	No
URBAN_GROWTH	King County Urban Growth Area Boundaries	Annually	Vector	DDES	Yes
WILDNET96	Wildlife Habitat Network	None planned	Vector	DDES	No
ZONING	Zoning	As needed	Vector	DDES	Yes
ADDRESS	Address Points with zipcode+4 and Postal carrier routes	Monthly	Vector	DES - EMD	Yes
REALPROP_AREA_VIEW	King County Real Property	Quarterly	Vector	DES - FMD	No
REALPROP_DAT	King County Property Interests Table	Quarterly	Table	DES - FMD	No
FACILITY	Wastewater Treatment Facilities of King County	As needed	Vector	DNRP - WTD	Yes
LOCATOR_ATTR	Watersamp location attributes	Weekly	Table	DNRP - WTD	No
PLANT	Wastewater Treatment Plants for King County and Other Sewer Agencies	As needed	Vector	DNRP - WTD	Yes
SEWER	Wastewater Conveyance for King County	As needed	Vector	DNRP - WTD	Yes
SITE_PLAN	Facility Footprints for Wastewater Facilities	As needed	Vector	DNRP - WTD	No
WTDBSN	Wastewater Treatment Division Sewer Basins	As needed	Vector	DNRP - WTD	No
WTDFLOW	Wastewater Treatment Division Sewer Basin Flow Direction	As needed	Vector	DNRP - WTD	Yes
WTDSEV	Wastewater Treatment Division Service Area	As needed	Vector	DNRP - WTD	Yes
WTRSAMP	Water Sampling sites	Irregular	Vector	DNRP - WTD	Yes
AG_LANDUSE_GENL03	2003 Generalized Agricultural Land Use	None planned	Vector	DNRP - WLRD	No
AG_LANDUSE01	2001 Agricultural Land Uses	None planned	Vector	DNRP - WLRD	No
AG_LANDUSE06	Agricultural Land Use 2006 for Ag. Production Districts and Vashon	None planned	Vector	DNRP - WLRD	Yes
ASGWC	Areas Susceptible to Groundwater Contamination	As needed	Vector	DNRP - WLRD	No
CARA	Critical Aquifer Recharge Areas	None planned	Vector	DNRP - WLRD	Yes
CHNLMIGR	River Channel Migration Areas (selected)	As needed	Vector	DNRP - WLRD	Yes
CLIPS_SPECIES_DATA	County Lands Invasive Plants Survey	As needed	Vector	DNRP - WLRD	No
CLIPS_SPECIES_DATA_AREA_TOTAL_INV	County Lands Invasive Plants Survey - Total Invasives	None planned	Vector	DNRP - WLRD	No
DRAINAGE_COMPLAINT	Drainage Complaints	Weekly	Vector	DNRP - WLRD	No
DRNSTUDY	Stormwater Drainage Studies	Irregular	Vector	DNRP - WLRD	No
FARMERS_MARKETS	King County Farmers Markets	Annually	Vector	DNRP - WLRD	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
FARMLAND	Farmland Preservation Program Properties	As needed	Vector	DNRP - WLRD	Yes
FLDPLAIN	Floodplain	As needed	Vector	DNRP - WLRD	Yes
FLOOD_CZD_CIP	Flood Control Zone District - CIP Projects	As needed	Vector	DNRP - WLRD	No
FLOOD_PHOTO	Flood Photos Along Major River Systems	As needed	Vector	DNRP - WLRD	No
FLOODWAY	Floodway	As needed	Vector	DNRP - WLRD	Yes
GP_ECO_VALUES	Greenprint Conservation Values By Ecological Program	As needed	Table	DNRP - WLRD	No
GP_FARM_VALUES	Greenprint Conservation Values By Farm Program	As needed	Table	DNRP - WLRD	No
GP_FLOOD_VALUES	Greenprint Conservation Values By Flood Program	As needed	Table	DNRP - WLRD	No
GP_FOREST_VALUES	Greenprint Conservation Values By Forest Program	As needed	Table	DNRP - WLRD	No
GWMA	Groundwater Management Areas	None planned	Vector	DNRP - WLRD	Yes
GWSOURCE	Groundwater Sources	Weekly	Vector	DNRP - WLRD	Yes
HYDROGAUGE	King County Hydrological Monitoring Gauges	Weekly	Vector	DNRP - WLRD	Yes
KCWHPA_10YR	Wellhead Protection Areas - Ten Year Time of Travel	None planned	Vector	DNRP - WLRD	Yes
KCWHPA_1YR	Wellhead Protection Areas - One Year Time of Travel	None planned	Vector	DNRP - WLRD	Yes
KCWHPA_5YR	Wellhead Protection Areas - Five Year Time of Travel	None planned	Vector	DNRP - WLRD	Yes
KCWHPA_6MO	Wellhead Protection Areas - Six Month Time of Travel	None planned	Vector	DNRP - WLRD	Yes
NDA	Neighborhood Drainage Projects	Irregular	Vector	DNRP - WLRD	No
NOXIOUS_WEED	Noxious Weeds Survey Sitings	Annually	Vector	DNRP - WLRD	Yes
NOXIOUS_WEED_POINT_COMMO NNAME	Noxious Weeds Survey Sitings - Common Name	Annually	Vector	DNRP - WLRD	No
NOXIOUS_WEED_POINT_WEED_C LASS	Noxious Weeds Survey Sitings - Weed Class	Annually	Vector	DNRP - WLRD	No
PARCEL_ECOVALUE_AREA_VIEW	Greenprint Conservation Values By Ecological Program View	As needed	Vector	DNRP - WLRD	No
PARCEL_FARMVAL_AREA_VIEW	Greenprint Conservation Values By Farm Program View	As needed	Vector	DNRP - WLRD	No
PARCEL_FLOODVAL_AREA_VIEW	Greenprint Conservation Values By Flood Program View	As needed	Vector	DNRP - WLRD	No
PARCEL_FORESTVAL_AREA_VIE W	Greenprint Conservation Values By Forest Program View	As needed	Vector	DNRP - WLRD	No
PUBLIC_LANDS	King County Public Lands	Quarterly	Vector	DNRP - WLRD	Yes
RIVER_MILE	One-mile markers along named rivers and streams	As needed	Vector	DNRP - WLRD	No
RIVERFAC	River facilities; levees and revetments maintained by King County	As needed	Vector	DNRP - WLRD	Yes

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
SALMON_WATCHER	Salmon Watcher Program Monitoring Locations	Annually	Vector	DNRP - WLRD	No
SALMONIDS_EVT	Measure-based event table describing occurrence of multiple salmonid species	Unknown	Table	DNRP - WLRD	No
SALMONIDS_LINE_EVT	Event layer showing salmonid occurrences against routed WTRCRS_LINE	Unknown	Vector	DNRP - WLRD	No
SALMONW_BASINS	Salmon Watcher Program Basins	None planned	Vector	DNRP - WLRD	No
SANDBAG_DISTRIBUTION_LOCATION	Sandbag Distribution Location in King County	As needed	Vector	DNRP - WLRD	No
SMP_ACCESS	Shoreline Public Access	None planned	Vector	DNRP - WLRD	No
SMP_ACCESS_PRIORITIES	SMP - Public Access Priorities	None planned	Vector	DNRP - WLRD	No
SMP_DESIGNATIONS	SMP Environment Designations - Draft	None planned	Vector	DNRP - WLRD	No
SMP_FINAL	Final Ecological Processes Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_JURISDICTION	Shoreline Master Program Jurisdiction in King County	None planned	Vector	DNRP - WLRD	No
SMP_LIGHT	Light Energy Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_LWD	Large Woody Debris Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_NITRO	Nitrogen Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_PATH	Pathogen Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_PHOS	Phosphorus Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_REACHES	Shoreline Master Program Reaches in King County	None planned	Vector	DNRP - WLRD	No
SMP_REACHES_AREA_REACHTYPE	Shoreline Master Program Reaches and Restoration Priorities in King County - Type Layer	As needed	Vector	DNRP - WLRD	No
SMP_REACHES_AREA_RESTORATION	Shoreline Master Program Reaches and Restoration Priorities in King County - Restoration Priority Layer	As needed	Vector	DNRP - WLRD	No
SMP_SEDIMENT	Sediment Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_SHORELINE_FACILITIES	Shoreline Facilities	None planned	Vector	DNRP - WLRD	No
SMP_SSSHORELINE	Shorelines of Statewide Significance in King County	None planned	Vector	DNRP - WLRD	No
SMP_TIDAL	Tidal Influence Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_TOXINS	Toxins Reach Quality	None planned	Vector	DNRP - WLRD	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
SMP_WATER	Hydrologic Cycle Reach Quality	None planned	Vector	DNRP - WLRD	No
SMP_WAVE	Wave Energy Reach Quality	None planned	Vector	DNRP - WLRD	No
SNOQ_OBLIQUE	Snoqualmie River Oblique Photos	None planned	Vector	DNRP - WLRD	No
STORM_FAC	Residential and Commercial Stormwater Facilities	Weekly	Vector	DNRP - WLRD	Yes
STORMREG	Regional Stormwater Facilities	Irregular	Vector	DNRP - WLRD	Yes
SWDM_FLOW	2005 SWDM Flow Control Applications Designations	None planned	Vector	DNRP - WLRD	No
SWDM_LH_DA	2005 SWDM Landslide Hazard Drainage Areas Designations	None planned	Vector	DNRP - WLRD	No
SWDM_WQ	2005 SWDM Water Quality Applications Designations	None planned	Vector	DNRP - WLRD	No
SWES_PROJ	KC DNRP WLRD Capital Projects and Open Space Acquisitions Section projects	Annually	Vector	DNRP - WLRD	No
SWM_DATA_AREA_VIEW	Surface Water Management Fee Spatial View	As needed	Vector	DNRP - WLRD	No
SWM_DATA_TABLE	Surface Water Management Fee Data	Weekly	Table	DNRP - WLRD	No
TAXPAYER_LUT	Taxpayer Lookup table	Unknown	Table	DNRP - WLRD	No
TDR_RECEIVING_PROPERTIES	TDR Receiving Properties	Unknown	Vector	DNRP - WLRD	No
TDR_SENDING_PROPERTIES	TDR Sending Properties	Unknown	Vector	DNRP - WLRD	No
TDR_SITE	TDR Site	Unknown	Vector	DNRP - WLRD	No
TDR_SITE_LINK	TDR Site Link	Unknown	Vector	DNRP - WLRD	No
TOPO_BASIN	Basin boundaries derived from terrain data	As needed	Vector	DNRP - WLRD	No
TOPO_BASIN_KC	Basin boundaries derived from terrain data - King County only	As needed	Vector	DNRP - WLRD	Yes
TOPO_CATCHMENT	Catchment boundaries derived from terrain data	As needed	Vector	DNRP - WLRD	No
TOPO_CATCHMENT_KC	Catchment boundaries derived from terrain data - King County only	As needed	Vector	DNRP - WLRD	No
TOPO_WATERSHED	Watershed boundaries derived from terrain data	As needed	Vector	DNRP - WLRD	No
TOPO_WATERSHED_KC	Watershed boundaries derived from terrain data - King County only	As needed	Vector	DNRP - WLRD	Yes
TOPO_WRIA	WRIA boundaries derived from terrain data	As needed	Vector	DNRP - WLRD	No
TOPO_WRIA_KC	WRIA boundaries derived from terrain data - King County only	As needed	Vector	DNRP - WLRD	Yes
WRIA_STREAM_NUM_EVT	Measure-based event table built on WTRCRS_LINE showing State Fish and Wildlife stream numbers	Unknown	Table	DNRP - WLRD	No
WRIA_STREAM_NUM_LINE_EVT	State Fish and Wildlife WRIA stream numbers as event layer based WTRCRS_LINE	Unknown	Vector	DNRP - WLRD	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
WRIA9_PROJECTS	Water Resource Inventory Area 9 Salmon Habitat Projects	Weekly	Vector	DNRP - WLRD	No
WTR_SERV	Water Service Areas	None planned	Vector	DNRP - WLRD	No
WTRCRS	King County Streams	Quarterly	Vector	DNRP - WLRD	Yes
WTRCRS_3CO	Rivers and streams for Snohomish; Pierce and King Counties	As needed	Vector	DNRP - WLRD	No
WTRCRS_LINE_STREAMLEVEL	River and streams by stream level	As needed	Vector	DNRP - WLRD	No
WTRCRS_MAJ_STREAM_EVT	Measure-based event business table that can be used to display major and streams from WTRCRS_LINE	Unknown	Table	DNRP - WLRD	No
WTRCRS_MAJ_STREAM_LINE_EVT	Major rivers and streams across all basins	As needed	Vector	DNRP - WLRD	No
BCT_GENERAL_DISPLAY	Backcountry Trails General Display	As needed	Vector	DNRP - PRD	No
COMM_NAMES	King County Parks Community Areas	As needed	Vector	DNRP - PRD	No
MAINTDIST	King County Parks Maintenance District Boundaries	As needed	Vector	DNRP - PRD	Yes
PARK	Parks in King County	As needed	Vector	DNRP - PRD	Yes
PARK_ADDRESS_TABLE	Park address table	As needed	Table	DNRP - PRD	No
PARK_AND_TRAIL_FACILITIES_TABLE	Park and Trail Facilities Table for ParkFinder application	As needed	Table	DNRP - PRD	No
PARK_FACILITY	Parks Facilities in King County	As needed	Vector	DNRP - PRD	Yes
PARK_FACILITY_CARTO	Park Facility Cartographic Lookup Table	As needed	Table	DNRP - PRD	No
PARK_INFO_AREA_VIEW	King County Parks Information	As needed	Vector	DNRP - PRD	No
PARK_INFO_TABLE	King County Parks Information Table	As needed	Table	DNRP - PRD	No
PARK_LABEL	Park Label	As needed	Vector	DNRP - PRD	No
PARK_PROPERTY	King County Parks Property Interests	As needed	Vector	DNRP - PRD	Yes
REGIONAL_TRAIL_GENERAL_DISPLAY	Simplified Regional Trail for Web Mapping	As needed	Vector	DNRP - PRD	No
RESOCOORD	King County Parks Resource Coordinator Boundaries	As needed	Vector	DNRP - PRD	Yes
TRAIL	Trails in King County	As needed	Vector	DNRP - PRD	Yes
SW_FACILITIES	King County Solid Waste Facilities	As needed	Vector	DNRP - SWD	Yes
SW_FACILITIES_PROP	King County Solid Waste Facility Properties	As needed	Vector	DNRP - SWD	No
SW_RECYCLING_PROVIDERS	Recycling providers for Solid Waste Division what to do with program	As needed	Vector	DNRP - SWD	No
WASTE_HAULER_SERVICE	Waste Hauler Service Areas	As needed	Vector	DNRP - SWD	Yes
FIRESTN	Fire Station Locations	As needed	Vector	Public Health	Yes
HOSPITALS	Acute Services Hospitals in King County.	Annually	Vector	Public Health	Yes
HPA_BLKGRP00	Health Planning Areas based on 2000 Census Block Groups	Annually	Vector	Public Health	No
HPA_TRACTS00	Health Planning Areas based on 2000 Tracts	Annually	Vector	Public Health	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
HPA_ZIPCODE	Health Planning Areas based on Zip code	Annually	Vector	Public Health	No
ILLEGAL_LAB	Drug laboratory business table related to PARCEL	Daily	Table	Public Health	No
ILLEGAL_LAB_AREA_VIEW	Parcels with illegal laboratory findings	As needed	Vector	Public Health	No
MEDIC_UNITS	Medical Units	As needed	Vector	Public Health	No
OSS_ASBUILT	Sewer System As-Built Drawings look-up table	As needed	Table	Public Health	No
PH_CLINICS	Public Health Clinics	As needed	Vector	Public Health	Yes
RESTAURANT_INSPECTIONS	King County and Seattle Public Health Restaurant Inspections	Quarterly	Vector	Public Health	No
AARROUTES	Adopt-a-Road Routes	Daily	Vector	DOT - Roads	Yes
BIKE_FACILITIES	King County Bike Facilities	Quarterly	Vector	DOT - Roads	Yes
BRIDGES	Bridges Maintained by King County	As needed	Vector	DOT - Roads	Yes
COMMON_INTEREST_BIKEMAP_LUT	Common Interest Points Bikemap	As needed	Table	DOT - Roads	No
EVACUATIONROUTES	Evacuation Routes for Green River Valley	As needed	Vector	DOT - Roads	Yes
HERITAGE_CORRIDORS	Heritage Corridors	As needed	Vector	DOT - Roads	Yes
LIFELINEROUTES	Lifeline Routes	Annually	Vector	DOT - Roads	Yes
MAINTENANCE_DIVISIONS	Maintenance Section Division Boundaries	Annually	Vector	DOT - Roads	Yes
MAINTENANCE_SHOPS	Road Services Maintenance Shops	Unknown	Vector	DOT - Roads	Yes
ROADLOG_BRIDGES	Bridge Name and Number Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_BRIDGES_50K	Bridge Name and Number (50K) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_CITY	City Name Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_CITY_50K	City Name (50K) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_COMMUNITY	Community Name Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_COMMUNITY_50K	Community Name (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_COUNTY_NAMES	County Names Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_INDEX_100K	Road Index Map Number (100k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_LEGDIST	Legislative Districts Number Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_LEGDIST_50K	Legislative Districts Number (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_PARKS	Parks Name Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_PARKS_50K	Parks Name (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_PLSS_SEC	PLSS Section Number Annotation	Daily	Annotation	DOT - Roads	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
	Feature Class				
ROADLOG_PLSS_SEC_50K	PLSS Section Number (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_ROADLOG_ID	Roadlog Number Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_ROADLOG_ID_50K	Roadlog Number (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_ST_INDEX	Street Name Index Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_ST_INDEX_50K	Street Name Index (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_STREAM	Stream Name Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_STREAM_50K	Stream Name (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_TNET	TNET Name Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_TNET_50K	TNET Name (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_TNET_HWYSYM	Freeway/Highway Shield Grouped Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_TNET_HWYSYM_100K	Freeway/Highway Shield (100k) Grouped Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_TNET_HWYSYM_50K	Freeway/Highway Shield (50k) Grouped Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_WATER	Water Name Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADLOG_WATER_50K	Water Name (50k) Annotation Feature Class	Daily	Annotation	DOT - Roads	No
ROADVACATION	Road Vacation	Daily	Vector	DOT - Roads	Yes
SNOWICEROUTES	Snow Removal Routes for King County	Unknown	Vector	DOT - Roads	Yes
ST_CRIS	County Road Inventory System - Street Centerlines	Weekly	Vector	DOT - Roads	Yes
TC_LEG	Traffic Count Leg	Annually	Table	DOT - Roads	Yes
TC_YEAR	Traffic Count Year	Annually	Table	DOT - Roads	Yes
TRAFFIC_COUNT_LOCATIONS	Traffic Count Locations	Annually	Vector	DOT - Roads	Yes
TRAFFICCAMS	King County and WSDOT Traffic Cameras	Irregular	Vector	DOT - Roads	Yes
TRANS_NEED	Transportation Needs Locations	As needed	Vector	DOT - Roads	Yes
TRAVELSHEDS	Concurrency Travel Shed	As needed	Vector	DOT - Roads	Yes
ADVERSE_WEATHER_DISTRICTS	Adverse Weather Districts	Unknown	Vector	DOT - Transit	Yes
BENSON_LINE_STATIONS	Benson Line Stations	As needed	Vector	DOT - Transit	Yes
BIKE_LOCKERS	Transit Facilities with Bicycle Lockers	As needed	Vector	DOT - Transit	No
BUS_BASES	King County Metro Bus Bases	As needed	Vector	DOT - Transit	Yes
BUSSTOP	Metro Transit Bus Stops	Daily	Vector	DOT - Transit	Yes
CHARGING_STATIONS	Transit Facilities with Electrical Outlets	As needed	Vector	DOT - Transit	No
COMFORT_STATIONS	Comfort Stations	As needed	Vector	DOT - Transit	No

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
DART	DART	As needed	Vector	DOT - Transit	Yes
EMITTER	Automated Vehicle Locator	Daily	Vector	DOT - Transit	Yes
FACILITY_NONREVENUE	King County Metro Transit facilities	Irregular	Vector	DOT - Transit	Yes
FACILITY_REVENUE	Facility Revenue	Irregular	Vector	DOT - Transit	No
FAREZONE	Transit fare zones	As needed	Vector	DOT - Transit	Yes
LANDMARK	Landmarks	As needed	Vector	DOT - Transit	Yes
LANDMARK_ALIAS	Landmark_Alias	As needed	Table	DOT - Transit	Yes
NEIGHBORHOOD	King County Neighborhood Areas	As needed	Vector	DOT - Transit	Yes
NEIGHBORHOOD_CENTERS	Neighborhood Centers in King County	As needed	Vector	DOT - Transit	Yes
ORCA_PASSPORT_ZONES	ORCA Passport Zones	Unknown	Vector	DOT - Transit	No
PARKRIDE	Metro Park and Ride Lots in King County	Quarterly	Vector	DOT - Transit	Yes
PATTERN_REV_ALL	Pattern Rev All	Unknown	Vector	DOT - Transit	No
PATTERN_REV_CUR	Pattern Revenue Current	Daily	Vector	DOT - Transit	No
PATTERN_REV_NXT	Pattern Rev Next	Unknown	Vector	DOT - Transit	No
PATTERN_STOPS_INLINE_CUR	Pattern Stops Inline Current	Daily	Vector	DOT - Transit	No
PATTERN_STOPS_INLINE_NXT	Pattern Stops Inline Next	Unknown	Vector	DOT - Transit	No
PATTERN_STOPS_OFFSET_CUR	Pattern Stops Offset Current	Unknown	Vector	DOT - Transit	No
PATTERN_STOPS_OFFSET_NXT	Pattern Stops Offset Next	Unknown	Vector	DOT - Transit	No
RIDE_FREE_BOUNDARY	Metro Transit Ride Free Boundary as defined by Transportation Network (TNET)	As needed	Vector	DOT - Transit	Yes
ROUTES	Metro Transit Revenue Service Routes as defined by Transportation Network (TNET)	Daily	Vector	DOT - Transit	Yes
SERVICE_PATTERN_TIMEPOINT	Metro Transit Service Pattern Timepoint Table	Weekly	Table	DOT - Transit	Yes
STOPS_INLINE_ALL	Stops Inline All	As needed	Vector	DOT - Transit	No
STOPS_OFFSET_ALL	Stops Offset All	Unknown	Vector	DOT - Transit	No
SUB_STATIONS	Rectifiers/Sub Stations	Annually	Vector	DOT - Transit	Yes
TIMEPOINT	Metro Transit Route Timepoints	Daily	Vector	DOT - Transit	Yes
TNAME	TNAME Table	Daily	Table	DOT - Transit	Yes
TPIPATH_DHD_ALL	TPI Path Deadhead All	Unknown	Vector	DOT - Transit	No
TPIPATH_DHD_CUR	Metro Transit Deadheads (Non Revenue Service Routes)	Daily	Vector	DOT - Transit	Yes
TPIPATH_DHD_NXT	TPI Path Deadhead Next	Unknown	Vector	DOT - Transit	No
TPIPATH_REV_ALL	TPI Path Rev All	Unknown	Vector	DOT - Transit	No
TPIPATH_REV_CUR	Metro Transit Revenue Service Routes as defined by Transportation Network (TNET)	Daily	Vector	DOT - Transit	Yes
TPIPATH_REV_NXT	TPI Path Rev Next	Unknown	Vector	DOT - Transit	No
TRANS_NETWORK	King County Transportation Network (TNET)	Daily	Vector	DOT - Transit	Yes

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
TRANS_NETWORK_BIKE_LINE_VIEW	BIKE Mode from Transportation Network	As needed	Vector	DOT - Transit	Yes
TRANS_NETWORK_BUS_LINE_VIEW	BUS Mode from Transportation Network	As needed	Vector	DOT - Transit	Yes
TRANS_NETWORK_CAR_LINE_VIEW	CAR Mode from Transportation Network	Unknown	Vector	DOT - Transit	Yes
TRANS_NETWORK_EQUEST_LINE_VIEW	EQUESTRIAN Mode from Transportation Network	As needed	Vector	DOT - Transit	Yes
TRANS_NETWORK_FERRY_LINE_VIEW	FERRY Mode from Transportation Network	As needed	Vector	DOT - Transit	Yes
TRANS_NETWORK_PED_LINE_VIEW	PEDESTRIAN Mode from Transportation Network	As needed	Vector	DOT - Transit	Yes
TRANS_NETWORK_RAIL_LINE_VIEW	RAILWAY Mode from Transportation Network	As needed	Vector	DOT - Transit	Yes
TRANS_NETWORK_US_STREETS_GCS	Address Locator for TRANS_NETWORK_LINE US Streets style	Continually	Table	DOT - Transit	No
TRANS_NETWORK_US_STREETS_WZONE_GCS	Address Locator for TRANS_NETWORK_LINE US Streets with Zone	Continually	Address Locator	DOT - Transit	No
TRANS_TLINK_TMODE	King County Transportation Network (TNET) Modes	Daily	Table	DOT - Transit	Yes
TRANSIT_CENTERS	Metro Transit Centers in King County	As needed	Vector	DOT - Transit	Yes
TRANSIT_PLANNING_BOUNDARIES	King County Metro Transit Boundaries	As needed	Vector	DOT - Transit	Yes
TRANSIT_REROUTES	Transit Reroutes	As needed	Vector	DOT - Transit	Yes
TROLLEY	Overhead trolley line	Annually	Vector	DOT - Transit	Yes
TUNNEL	Metro Transit Tunnels & Tunnel Stations	Irregular	Vector	DOT - Transit	Yes
AIRPORTS	King County Airports	As needed	Vector	DOT - Airport	Yes
NOISE_CONTOURS_1DB	One Decibel Noise Contours for King County International Airport	As needed	Vector	DOT - Airport	Yes
AIRDST	King County Airport District	As needed	Vector	KC Elections	Yes
CEMDST	King County Cemetery District	As needed	Vector	KC Elections	Yes
CITYDST	Incorporated Areas of King County	As needed	Vector	KC Elections	Yes
CONGDST	2002 Congressional Districts in King County	As needed	Vector	KC Elections	Yes
DIRDST	Seattle School Board Director Districts	As needed	Vector	KC Elections	Yes
DSTCODE	District Codes	As needed	Vector	KC Elections	Yes
FIRDST	Fire Protection Districts of King County	As needed	Vector	KC Elections	Yes
HSPDST	Hospital Districts	As needed	Vector	KC Elections	Yes
JUDDST	King County District Courts	As needed	Vector	KC Elections	Yes
KCCDST	Metropolitan King County Council	As needed	Vector	KC Elections	Yes
LEGDST	2002 Legislative Districts of King County	As needed	Vector	KC Elections	Yes
LIBDST	King County Rural Library District	As needed	Vector	KC Elections	Yes

Name	Description	Update Frequency	Data Type	Steward Agency	Data Portal
MS1DST	Miscellaneous 1 Districts	As needed	Vector	KC Elections	No
MS2DST	Miscellaneous 2 Districts	As needed	Vector	KC Elections	No
MUNDST	Municipal Districts	As needed	Vector	KC Elections	Yes
PRKDST	Park Districts in King County	As needed	Vector	KC Elections	Yes
RTADST	Regional Transit District	As needed	Vector	KC Elections	Yes
SCHDST	School Districts in King County	As needed	Vector	KC Elections	Yes
SWRDST	Sewer Districts	As needed	Vector	KC Elections	Yes
VOTDST	Voting Districts of King County	As needed	Vector	KC Elections	Yes
WSDST	Water and Sewer Districts of King County	As needed	Vector	KC Elections	Yes
WTRDST	Water Districts of King County	As needed	Vector	KC Elections	Yes
KCP_LOC	Police Stations in King County	As needed	Vector	KCSO	Yes
PATROL_DISTRICTS	King County Sheriff Patrol Districts	As needed	Vector	KCSO	No
NSA	No Shooting Areas	As needed	Vector	KC Council	No
REC_LOTS	Recorded Lots for current year	Annually	Vector	OSSPM	No
REC_LOTS06	Recorded Lots for 2006	None planned	Vector	OSSPM	No
UNINCBLDGPERRMITS	Unincorporated King County Building Permits for Current Year	Annually	Vector	OSSPM	No
UNINCBLDGPERRMITS06	Unincorporated King County Building Permits for 2006	None planned	Vector	OSSPM	No

### 5.4.1 Enterprise Raster Data

- This table contains listings of raster data stored in the Spatial Data Warehouse. The “Group” column provides a general categorization for the data sets. The “Access” column indicates whether or not King County owns the data outright. Licensed data, so labeled in the Access column, can only be redistributed with the permission of the licensor.

Name	Description	Group	Access
LIDAR DIGITAL GROUND MODEL ASPECT - 30 FT GSD	Bare-earth floating point aspect grid	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL CONTOURS - 5 FT CI	Elevation contours derived from gridded elevation models for bare-earth	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL CONTOURS - NEATLINE EDGEMATCHED	Elevation contours clipped and edge matched to twshp-rge boundaries	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL PT DENSITY	Generalized density analysis of digital ground lidar elevation points	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL ASCII	Bare earth elevation model derived from variably spaced ascii pts	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL TIN	Bare earth elevation model derived from variably spaced ascii pts	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL GRID - 6 FT GSD	Bare earth elevation model derived from variably spaced ascii pts	Elevation	No Use Restriction

Name	Description	Group	Access
LAST RETURN LIDAR ELEVATION ASCII	Last return lidar elevation data as variably-spaced ascii pts	Elevation	No Use Restriction
LIDAR DIGITAL SURFACE MODEL ASCII	Top of vegetation; first-return elevation model from variably-spaced ascii pts	Elevation	No Use Restriction
LIDAR DIGITAL SURFACE MODEL TIN	Top of vegetation; first-return elevation model from variably-spaced ascii pts	Elevation	No Use Restriction
LIDAR DIGITAL SURFACE MODEL GRID - 6 FT GSD	Top of vegetation; first-return elevation model from variably-spaced ascii pts	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL HILLSHADE - 6 FT GSD	Bare earth elevation model grayscale hillshade.	Elevation	No Use Restriction
LIDAR DIGITAL SURFACE MODEL HILLSHADE - 6 FT GSD	First return elevation model grayscale hillshade.	Elevation	No Use Restriction
LIDAR COLORIZED GROUND HILLSHADE - 38 FT GSD	Color hillshade derived from gridded elevation models for bare-earth with green to yellow ramp	Elevation	No Use Restriction
LIDAR COLORIZED GROUND HILLSHADE - 50 FT GSD	Color hillshade derived from gridded elevation models for bare-earth with green to brown ramp	Elevation	No Use Restriction
FIRST RETURN LIDAR INTENSITY ASCII	First-return lidar intensity ascii data	Elevation	No Use Restriction
LAST RETURN LIDAR INTENSITY ASCII	Last-return lidar intensity ascii data	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL SLOPE - 30 FT GSD	Bare-earth floating point slope grid in Degrees	Elevation	No Use Restriction
LIDAR DIGITAL GROUND MODEL STEEP SLOPES - 30 FT GSD	Lidar digital ground model slope greater than or equal to 40 percent	Elevation	No Use Restriction
PUGET SOUND 30-FT SEAMLESS BATHYMETRY - 30 FT GSD	Combined bathymetry and elevation data for Puget Sound Lowlands at 30 foot resolution	Elevation	No Use Restriction
PUGET SOUND BATHYMETRY GRAY HILLSHADE - 30 FT GSD	Grayscale hillshade derived from Puget Sound combined bathymetry and elevation	Elevation	No Use Restriction
PUGET SOUND BATHYMETRY CONTOUR - 20 FT CI	20-foot contour isolines derived from Puget Sound combined bathymetry and elevation	Elevation	No Use Restriction
PUGET SOUND BATHYMETRY COLOR HILLSHADE -30 FT GSD	Color hillshade derived from Puget Sound combined bathymetry and elevation	Elevation	No Use Restriction
PUGET SOUND BATHYMETRY CONTOUR - 50 FT CI	50-foot contour isolines derived from Puget Sound combined bathymetry and elevation	Elevation	No Use Restriction
SHUTTLE RADAR TOPOLOGY ELEVATION - 86 FT GSD	Space shuttle radar-derived elevation model	Elevation	No Use Restriction
SHUTTLE RADAR TOPOLOGY HILLSHADE - 86 FT GSD	Grayscale hillshade derived from shuttle-derive elevation model	Elevation	No Use Restriction
USGS DEM CONTOURS - 500 FT CI	Generalized contours derived from lower-resolution USGS DEM	Elevation	No Use Restriction
USGS NATIONAL ELEVATION DATABASE (NED) -28 FT GSD	1/3 arc second higher-resolution USGS digital elevation data by county tile	Elevation	No Use Restriction
USGS DIGITAL ELEVATION MODEL (DEM) - 86 FT GSD	Lower resolution USGS digital elevation model	Elevation	No Use Restriction
STATEWIDE USGS DEM - 98 FT GSD	USGS 28 meter (98 feet) Digital Elevation Model for entire Washington State	Elevation	No Use Restriction
USGS DEM - CARTOGRAPHIC -70 FT GSD	Resampled and smoothed Digital Elevation Model for entire Puget Sound area for cartographic apps	Elevation	No Use Restriction
USGS NED GROUND HILLSHADE FOR KING CO- 28 FT GSD	Grayscale hillshade derived from higher-resolution USGS DEM; King County only.	Elevation	No Use Restriction

Name	Description	Group	Access
USGS NED GROUND HILLSHADE; FOUR COUNTY AREA - 28 FT GSD	Grayscale hillshade derived from higher-resolution USGS DEM; Four County area.	Elevation	No Use Restriction
USGS DEM HILLSHADE - 1000 FT GSD	Grayscale hillshade derived from lower-resolution USGS DEM via State DNR - Washington Area	Elevation	No Use Restriction
USGS DEM HILLSHADE - 86 FT GSD	Grayscale hillshade derived from lower-resolution USGS DEM - Puget Sound Area	Elevation	No Use Restriction
STATEWIDE DEM GREYSCALE HILLSHADE - 98 FT GSD	Grayscale hillshade created from USGS 28 meter (98 feet) DEM for entire Washington State	Elevation	No Use Restriction
STATEWIDE COLORIZED HILLSHADE - 900 FT GSD	Colorized hillshade from USGS 28 meter (98 feet) DEM representing elevation range for entire state	Elevation	No Use Restriction
USGS DEM HILLSHADE - CARTOGRAPHIC -70 FT GSD	Resampled and smoothed DEM grayscale hillshade for entire Puget Sound area for cartographic apps	Elevation	No Use Restriction
1992-ERA CCAP FOREST FRAGMENTATION DATA	Coastal Change Analysis Program Forest Fragmentation Data for King County - Year 1992	Landcover	No Use Restriction
1996-ERA CCAP FOREST FRAGMENTATION DATA	Coastal Change Analysis Program Forest Fragmentation Data for King County - Year 1996	Landcover	No Use Restriction
2001-ERA CCAP FOREST FRAGMENTATION DATA	Coastal Change Analysis Program Forest Fragmentation Data for King County - Year 2001	Landcover	No Use Restriction
2006-ERA CCAP FOREST FRAGMENTATION DATA	Coastal Change Analysis Program Forest Fragmentation Data for King County - Year 2006	Landcover	No Use Restriction
2000 IMPERVIOUS/IMPACTED SURFACE - 2 FT GSD	High resolution impervious and impacted surface landcover	Landcover	No Use Restriction
2007 IMPERVIOUS/IMPACTED SURFACE - 2 FT GSD	High resolution impervious and impacted surface landcover updated with other source data to 2007	Landcover	No Use Restriction
MAN MADE STRUCTURES WITH HEIGHT-6FT GSD	Continuous grid with building classes symbolized to show building heights	Landcover	No Use Restriction
VEGETATION HEIGHT-6FT GSD	Continuous grid with vegetation classes symbolized to show plant heights	Landcover	No Use Restriction
1992-2001 LANDSAT WET AREA CHANGE - 98 FT GSD	Change detection analysis of wet area change to other landcover classes	Landcover	No Use Restriction
1994-2001 LANDSAT FOREST LOSS - 84 FT GSD	Change detection analysis where forest canopy changed to other classes	Landcover	No Use Restriction
1994-2001 LANDSAT IMPERVIOUS GROWTH - 84 FT GSD	Change detection analysis where any non-imp landcover class changed	Landcover	No Use Restriction
2001 NLCD IMPERVIOUS PERCENT - 98 FT GSD	National Landcover Database 2001 percent impervious surface	Landcover	No Use Restriction
2001 NLCD TREE CANOPY PERCENT - 98 FT GSD	National Landcover Database 2001 percent tree canopy	Landcover	No Use Restriction
1970 LANDCOVER WITH 2000 POP UPDATES - 328 FT GSD	Land use data from 1970 refined with 2000 population data to indicate new residential development	Landcover	No Use Restriction
1970 LANDCOVER WITH 1990 POP UPDATES - 328 FT GSD	Land use data from 1970 refined with 1990 population data to indicate new residential development	Landcover	No Use Restriction
1991 LANDSAT LANDCOVER - 98 FT GSD	University of Washington 6-class landcover classification	Landcover	No Use Restriction
1992 LANDSAT LANDCOVER - 98 FT GSD	Dual 9-category and 21 subcategory landcover classification	Landcover	No Use Restriction
1995 LANDSAT LANDCOVER - 82 FT GSD	16-class landcover classification	Landcover	No Use Restriction

Name	Description	Group	Access
1995 COASTAL CHANGE ANALYSIS PROGRAM (CCAP) - 98 FT GSD	Coastal Change Analysis Program 1995 Land Cover	Landcover	No Use Restriction
2000 COASTAL CHANGE ANALYSIS PROGRAM (CCAP) - 98 FT GSD	Coastal Change Analysis Program 2000 Land Cover	Landcover	No Use Restriction
1995-2000 COASTAL CHANGE ANALYSIS PROGRAM CHANGE - 98 FT GSD	Coastal Change Analysis Program 1995 to 2000 Land Cover Change	Landcover	No Use Restriction
1998 LANDSAT LANDCOVER - 98 FT GSD	University of Washington 7-class Rapid Landcover Classification project	Landcover	No Use Restriction
2001 LANDSAT ESA/SAO LANDCOVER - 84 FT GSD	ESA/SAO 11-class landcover classification	Landcover	No Use Restriction
2002 LANDSAT LANDCOVER - 98 FT GSD	17-class landcover analysis of the greater Puget Sound region - PS Regional Synthesis Model	Landcover	No Use Restriction
2001 NLCD LANDCOVER - 98 FT GSD	National Landcover Database 2001 Land Cover	Landcover	No Use Restriction
1988-1991 FOREST CANOPY FOR WESTERN WASHINGTON - 82 FT GSD	Pacific Meridian Forest Canopy (seral stage) Analysis using 1988 and 1991 Landsat imagery	Landcover	No Use Restriction
1991 PERCENT FOREST CANOPY FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1991 Forest Canopy Percent	Landcover	No Use Restriction
1996 PERCENT FOREST CANOPY FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1996 Forest Canopy Percent	Landcover	No Use Restriction
2001 PERCENT FOREST CANOPY FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 2001 Forest Canopy Percent	Landcover	No Use Restriction
1991-2001 LANDCOVER CHANGE FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1991 to 2001 Change Detection	Landcover	No Use Restriction
1991-1996 LANDCOVER CHANGE FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1991 to 1996 Change Detection	Landcover	No Use Restriction
1996-2001 LANDCOVER CHANGE FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1996 to 2001 Change Detection	Landcover	No Use Restriction
1991 PERCENT IMPERVIOUS SURFACE FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1991 Impervious Surface Percent	Landcover	No Use Restriction
1996 PERCENT IMPERVIOUS SURFACE FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1996 Impervious Surface Percent	Landcover	No Use Restriction
2001 PERCENT IMPERVIOUS SURFACE FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 2001 Impervious Surface Percent	Landcover	No Use Restriction
1991 LANDCOVER FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1991 Base Landcover	Landcover	No Use Restriction
1996 LANDCOVER FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 1996 Base Landcover	Landcover	No Use Restriction
2001 LANDCOVER FOR WESTERN WASHINGTON - 98 FT GSD	Western Washington Land Cover Change Analysis - 2001 Base Landcover	Landcover	No Use Restriction

Name	Description	Group	Access
2007 LANDCOVER FOR KING AND SW SNOHOMISH COUNTIES - 85 FT GSD	11-class Landcover Classification for King and SW Snohomish Counties	Landcover	No Use Restriction
2000 DAIS COLOR INFRARED ORTHOPHOTO - 1.64 FT GSD	Color infrared 0.5-meter (1.64 ft) GSD orthophotography	Orthoimagery	Licensed
2000 EMERGE COLOR INFRARED ORTHOPHOTO - 2 FT GSD	Color infrared 2-foot GSD orthophotography	Orthoimagery	No Use Restriction
2009 AERIALS EXPRESS COLOR INFRARED ORTHOPHOTO -1 FT GSD	Color Infrared 1-ft GSD urban/suburban areas for King and SW Snohomish Counties	Orthoimagery	Licensed
2010 KING COUNTY COLOR INFRARED ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Color Infrared 6 inch GSD imagery for western KC (2010)	Orthoimagery	Licensed
2010 KING COUNTY COLOR INFRARED ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Color Infrared 12 inch GSD imagery for eastern KC (2010)	Orthoimagery	Licensed
1996 NIES NATURAL COLOR ORTHOPHOTO - 3.28 FT GSD	Natural color 1-meter (3.28 ft) GSD orthophotography	Orthoimagery	No Use Restriction
2000 DAIS NATURAL COLOR ORTHOPHOTO - 1.64 FT GSD	Natural color 0.5-meter (1.64 ft) GSD orthophotography	Orthoimagery	Licensed
2000 EMERGE NATURAL COLOR ORTHOPHOTO - 2 FT GSD	Natural color derivative 2-foot GSD orthophotography	Orthoimagery	No Use Restriction
2000 IKONOS NATURAL COLOR ORTHOPHOTO - 15 FT GSD	Natural color satellite-derived 15-ft orthophotography	Orthoimagery	Licensed
2000 SPACE IMAGING NATURAL COLOR COMPOSITE - 4 FT GSD	4-foot GSD natural color composite of all Space Imaging orthophotography.	Orthoimagery	Licensed
2002 USGS NATURAL COLOR ORTHOPHOTO - 0.98 FT GSD	Natural color Hi-resolution (0.098-ft GSD) urban area orthophotography.	Orthoimagery	No Use Restriction
2002 KING COUNTY NATURAL COLOR ORTHOPHOTO - 1 FT GSD	Natural color 1-ft GSD ESA/SAO orthophotography.	Orthoimagery	No Use Restriction
2005 SEATTLE NATURAL COLOR ORTHOPHOTO - 0.5 FT GSD	Natural color 0.5-foot GSD orthophotography for City of Seattle limits only	Orthoimagery	Licensed
2005 AERIALS EXPRESS NATURAL COLOR ORTHOPHOTO - 1 FT GSD	Natural color 1-ft GSD urban/suburban area (includes 1.5 ft img resampled to 1-ft)	Orthoimagery	Licensed
2005-2006 PICTOMETRY NATURAL COLOR OBLIQUE - NEIGHBORHOOD 0.5 FT GSD	West King County 1-foot GSD oblique and vertical imagery (2005-2006)	Orthoimagery	Licensed
2007 KING COUNTY NATURAL COLOR ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Natural color 6 inch GSD imagery for western KC (2007)	Orthoimagery	Licensed
2007 KING COUNTY NATURAL COLOR ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Natural color 1 foot GSD orthoimagery for eastern KC (2007)	Orthoimagery	Licensed
2007 PICTOMETRY NATURAL COLOR OBLIQUE - NEIGHBORHOOD - 0.5 FT GSD	West King County 0.5-foot GSD oblique and vertical imagery (2007)	Orthoimagery	Licensed
2007 PICTOMETRY NATURAL COLOR OBLIQUE - COMMUNITY - 1.0 FT GSD	East King County 1.0-foot GSD oblique and vertical imagery (2007)	Orthoimagery	Licensed
2009 ECITYGOV ALLIANCE NATURAL COLOR ORTHOPHOTO - 0.25 FT GSD	Natural color 3-inch GSD imagery for northwest King County cities	Orthoimagery	Licensed

Name	Description	Group	Access
2009 KING COUNTY NATURAL COLOR ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Natural color 6 inch GSD imagery for western KC (2009)	Orthoimagery	Licensed
2009 KING COUNTY NATURAL COLOR ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Natural color 1 foot GSD orthoimagery for eastern KC (2009)	Orthoimagery	Licensed
2009 PICTOMETRY NATURAL COLOR OBLIQUE - NEIGHBORHOOD - 0.5 FT GSD	West King County 0.5-foot GSD oblique and vertical imagery (2009)	Orthoimagery	Licensed
2009 PICTOMETRY NATURAL COLOR OBLIQUE - COMMUNITY - 1.0 FT GSD	East King County 1.0-foot GSD oblique and vertical imagery (2009)	Orthoimagery	Licensed
WESTERN KING COUNTY LOCATOR MAP - IMAGE AND VECTOR COMPOSITE	Rasterized copy of generic version of Enterprise Seattle Map with key location information	Orthoimagery	No Use Restriction
2010 KING COUNTY NATURAL COLOR ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Natural color 6 inch GSD imagery for western KC (2010)	Orthoimagery	Licensed
2010 KING COUNTY NATURAL COLOR ORTHOPHOTO - 0.5 AND 1.0 FT GSD	Natural color 12 inch GSD imagery for eastern KC (2010)	Orthoimagery	Licensed
1936 WEST KING COUNTY PANCHROMATIC ORTHOPHOTO - 1 FT GSD	Panchromatic 1-foot GSD orthophotography	Orthoimagery	Licensed
1993 SEATTLE PANCHROMATIC ORTHOPHOTO - 1 FT GSD	Panchromatic 1-foot GSD orthophotography	Orthoimagery	Licensed
1998 WADNR PANCHROMATIC ORTHOPHOTO - 3 FT GSD	Panchromatic 3-foot GSD orthophotography.	Orthoimagery	Licensed
FIRST RETURN LIDAR INTENSITY IMAGERY - 3 FT GSD	Histogram-balanced first return lidar intensity imagery	Other Imagery	No Use Restriction
LAST RETURN LIDAR INTENSITY IMAGERY - 3 FT GSD	Histogram-balanced last return lidar intensity imagery	Other Imagery	No Use Restriction
1987 LANDSAT MULTIBAND SCENE - 66 FT GSD	3-band Thematic Mapper scene (September 7)	Other Imagery	No Use Restriction
1990 LANDSAT MULTIBAND SUMMER SCENE - 93 FT GSD	6-band Thematic Mapper scene (September 22)	Other Imagery	No Use Restriction
1991 SPOT MULTIBAND SCENE - 66 FT GSD	3-band SPOT image	Other Imagery	No Use Restriction
1994 LANDSAT MULTIBAND SUMMER SCENE - 82 FT GSD	6-band Thematic Mapper scene (July 31)	Other Imagery	No Use Restriction
1995 LANDSAT MULTIBAND SCENE - 82 FT GSD	7-band Landsat scene	Other Imagery	No Use Restriction
1996 LANDSAT MULTIBAND SUMMER SCENE - 82 FT GSD	6-band Thematic Mapper scene (August 21)	Other Imagery	No Use Restriction
1999 LANDSAT PAN-SHARPENED MULTIBAND SCENE - 49 FT GSD	4-band Thematic Mapper scene (pan-sharpened)	Other Imagery	No Use Restriction
1999 LANDSAT MULTIBAND SCENE - 98 FT GSD	4-band Thematic Mapper scene	Other Imagery	No Use Restriction
2000 LANDSAT PANCHROMATIC WINTER SCENE - 41 FT GSD	1-band Thematic Mapper scene (band 8 panchromatic-January 29)	Other Imagery	No Use Restriction
2000 LANDSAT PANCHROMATIC SUMMER SCENE - 42 FT GSD	1-band Thematic Mapper scene (band 8 panchromatic-July 7)	Other Imagery	No Use Restriction

Name	Description	Group	Access
2000 LANDSAT MULTIBAND WINTER SCENE - 82 FT GSD	6-band Thematic Mapper scene (January 29)	Other Imagery	No Use Restriction
2000 LANDSAT MULTIBAND SUMMER SCENE - 83 FT GSD	6-band Thematic Mapper scene (July 7)	Other Imagery	No Use Restriction
2001 LANDSAT MULTIBAND SUMMER SCENE - 82 FT GSD	6-band Thematic Mapper scene (August 11)	Other Imagery	No Use Restriction
2002 LANDSAT PANCHROMATIC LATE WINTER SCENE - 41 FT GSD	1-band Enhanced Thematic Mapper (band 8 panchromatic-April 24)	Other Imagery	No Use Restriction
2002 LANDSAT PANCHROMATIC SUMMER SCENE - 42 FT GSD	1-band Enhanced Thematic Mapper (band 8 panchromatic-August 14)	Other Imagery	No Use Restriction
2002 LANDSAT MULTIBAND LATE WINTER SCENE - 82 FT GSD	6-band Enhanced Thematic Mapper scene (April 24)	Other Imagery	No Use Restriction
2002 LANDSAT MULTIBAND SUMMER SCENE - 83 FT GSD	6-band Enhanced Thematic Mapper scene (August 14)	Other Imagery	No Use Restriction
2004 LANDSAT MULTIBAND SUMMER SCENE - 82 FT GSD	6-band Thematic Mapper scene (August 11)	Other Imagery	No Use Restriction
2004 LANDSAT PANCHROMATIC SUMMER SCENE - 42 FT GSD	1-band Enhanced Thematic Mapper (band 8 panchromatic-August 11)	Other Imagery	No Use Restriction
HISTORIC USGS DIGITAL RASTER GRAPHIC QUADRANGLES	Historic USGS 1:125k topographic quadrangles - 1890 to 1920 vintage	Other Imagery	No Use Restriction
USGS DIGITAL RASTER GRAPHIC QUADRANGLES	Digital version of USGS 7.5 minute topographic quadrangles; various vintages.	Other Imagery	No Use Restriction

### 5.4.2 Agency Vector and Tabular Data

- This table contains listings of agency level data. These are data sets maintained by agencies that for a variety of reasons are not currently stored in the King County Spatial Data Warehouse. This table is sorted on the Agency Name column to mirror the order of Section 4.

Name	Description	Update Frequency	Steward Agency
ANNO_LEADERLINES	Leader lines for annotation.	As needed	Assessments
ANNO_POINTS	Points for block symbols.	As needed	Assessments
APT_NEIGHBORHOOD	Apartment specialty areas.	As needed	Assessments
COMAREAS	Commercial Area boundaries.	As needed	Assessments
CONDO_NEIGHBORHOODS	Condominium specialty areas.	As needed	Assessments
CONVEYANCE	Platted major number; plats and Donation Land Claim boundaries.	As needed	Assessments
ENCUMBRANCE	Encumbrances tied to the cadastral Boundary layer.	As needed	Assessments
FIRE_DISTRICT	Fire Districts (Layer Under Construction)	As needed	Assessments
QSMAPINDEX	QSTR index for mapping; formerly known as locat2	As needed	Assessments
RESAREAS	Residential Areas boundaries	As needed	Assessments
SCHOOL_DISTRICT	School Districts (Layer Under Construction)	As needed	Assessments
SEWER_DISTRICT	Sewer Districts (Layer Under Construction)	As needed	Assessments
WATER_DISTRICT	Water Districts (Layer Under Construction)	As needed	Assessments

Name	Description	Update Frequency	Steward Agency
ADDRESS_POINT	Polygon layer based on PARCEL with tabular data added; other items added through spatial overlay; including only one or all possible addresses from the ESITES. Produced to meet a need for upcoming Accela Automation system implemented by Permit Integration. This layer is expected to be an enterprise layer in the future.	Weekly	DDES
ADDRESS_DDES	Table containing addresses for unincorporated King County that are generated by the DDES addressing technicians. This table is stored in MS ACCESS.	Weekly	DDES
AG_PRODUCTION_DISTRICT_95	Archival version of the Agricultural Production District (APD) as defined by Chapter 3 of the King County Comprehensive Plan.	None planned	DDES
AIRPORT	Airport Noise Remedy Program. Created from an old published map; this old version is currently referenced in code.	None planned	DDES
AQUATIC	Polygons representing maximum stream buffers of Aquatic Areas (primarily streams and water bodies) under the King County Critical Areas Ordinance	Irregular	DDES
BALD_EAGLE_NESTS	Points representing observed Bald Eagle Nest Points	None planned	DDES
CAO_DESIGNATION	Polygons representing properties with field checked critical area sketch maps on record.	Monthly	DDES
CARDROOM	Points representing operating card rooms in King County as of April 2000	None planned	DDES
CGMAIL	Table of addresses for community groups that get notified when buffered mailing lists are created. Related to COMGROUP below.	As needed	DDES
CIA	Polygons used as the basis for all the various CIA_* layers. When those layers are adjusted the CIA polygons are reallocated.	Irregular	DDES
CIA_BUILD	Polygons representing building inspection areas. Derived from CIA.	As needed	DDES
COMGROUP	Polygons representing the area of interest of community groups who are on record to be notified of certain types of permit activity.	As needed	DDES
COMPLU_CENTERS	Polygons and Points representing community centers designated under the KC Comp. Plan	As needed	DDES
CRITICAL_DRAINAGE	Polygons representing Critical Drainage Areas	None planned	DDES
DEV_COND_LUT	Table of detailed information to be related to P-Suffix; Demonstration Project Area; and Special District Overlay layers	As needed	DDES
ESA_IA	Polygons representing Environmental Species Act (ESA) inspection areas.	Irregular	DDES
FIRE_ZONE	Polygons representing groups of fire districts and municipal jurisdictions used by the Fire Marshal's office.	As needed	DDES
FLOOD_ELEVATION_CERTIFICATES	Polygons representing parcels with a recorded flood elevation certificate.	Irregular	DDES
FOREST_PRACTICE_APPLICATIONS_XXXX	Archival versions of the parcels with Forest Practices Applications in the given year (e.g. FOREST_PRACTICE_APPLICATIONS_1996).	None planned	DDES

Name	Description	Update Frequency	Steward Agency
FOREST_PRODUCTION_DISTRICT_XXXX	Archival versions of the Forest Production District in the given year (e.g. FOREST_PRODUCTION_DISTRICT_1995).	As needed	DDES
GEO_PERMIT	Polygon and Point layers. Based on parcels. Provides geographic reference for any DDES permit system records where one can be located. . This layer is expected to be an enterprise layer in the future.	Weekly	DDES
GROUND_WATER_MANAGEMENT	Polygons representing ground water management areas.	None planned	DDES
HALEPAR	Polygons representing parcels containing observed Bald Eagle Nest Points.	None planned	DDES
INTERLOCAL_AGREEMENT	Polygons representing DDES interlocal agreements with various cities and agencies.	As needed	DDES
JOINT_PLANNING	Polygons representing joint planning areas as defined by the King County Comprehensive Plan.	As needed	DDES
KING_COUNTY_GOV_FAC	Points representing government facilities that need to be shown on DDES maps. Notably the Black River facility that houses DDES.	Irregular	DDES
LAKE_MANAGEMENT_PLANS	Polygons representing Lake Management Plans	None planned	DDES
LAKE_PROTECTION_STANDARDS	Polygons representing Lake Protection Standard Areas	None planned	DDES
LU_XXXXX	A series of polygon layers representing Comprehensive Plan land use changes per various King County ordinances. Each layer shows the before and after planned land use for a given ordinance. Layer name provides ordinance number (e.g. LU_11353).	As needed	DDES
MAJOR_RECEIVING_WATER_BODIES	Polygons representing major receiving water bodies as regulated by the Surface Water Design Manual	Irregular	DDES
MASTER_DRAINAGE_PLAN	Master Drainage Plans Areas as defined and regulated by the Surface Water Design Manual.	Irregular	DDES
MINE_SITES	Points representing mineral resource sites as defined by Chapter 3 of the King County Comprehensive Plan.	As needed	DDES
MINE_XXXX	Archival versions of mineral resource sites as defined by Chapter 3 of the King County Comprehensive Plan in the given year (e.g. MINE_1995).	Annually	DDES
MPS_200403	Archival versions of the Road Mitigation Payment System later; originally effective March 2004.	None planned	DDES
OPENENF	Points representing open code enforcement cases.	Monthly	DDES
OPENLUIS	Points representing open land use inspections	Monthly	DDES
P_XXXX	A series of region layers representing parcel specific development condition changers per various King County ordinances. Each layer shows the before and after changes to the modified p-suffixes. Layer name provides ordinance number (e.g. P_11353).	As needed	DDES
PARCELS	Parcel specific database for development conditions information. This table is stored in MS ACCESS.	As needed	DDES

Name	Description	Update Frequency	Steward Agency
PERMPAR	Polygons representing parcels associated with DDES permits. Includes historical parcels that no longer exist.	Monthly	DDES
PLATS	Table derived from the DDES permitting system that lists major number and plat name where that is available.	Monthly	DDES
POTENTIAL_ANNEXATION_1994	Archival version of the Interim Potential Annexation Areas layer (INTRMPAA) published in the King County Spatial Data Warehouse.	None planned	DDES
PWI	Polygons representing Areas of Potential Wetland Influence (300' buffers of SAO Wetlands with KCAWET and the NWI wetlands) under the King County Critical Areas Ordinance.	As needed	DDES
RED_TAILED_HAWK	Points indicating observed Red-Tailed Hawk nests.	As needed	DDES
RFFA	Polygons representing the KC Comp. Plan designated Rural Forest Focus Areas	As needed	DDES
RURAL_AGRICULTURE_DISTRICT_XXXX	Archival versions of the Rural Agricultural District in the given year (e.g. RURAL_AGRICULTURE_DISTRICT_1995).	As needed	DDES
RURAL_FOREST_DISTRIBUTION_XXXX	Archival versions of the Rural Forest District in the given year (e.g. RURAL_FOREST_DISTRICT_1995).	As needed	DDES
SCHDST_LUT	Table maintained by DDES to provide the correct text for Fife School District on GISMO parcel info report	As needed	DDES
SEATTLE_INTERNATIONAL_RACEWAY	Polygon representing the Seattle International Raceway property. This is relevant to some Comp Plan policies.	None planned	DDES
SENS_HISTSITE	Polygons representing parcels that contain sensitive officially designated Historic Sites in King County as defined by the King County Historic Resource Inventory. The sensitive sites are kept separate from the other historic sites and not published to shield them from vandalism and other adverse actions.	As needed	DDES
SERVICE_AND_FINANCIAL_STRATEGY	Historic planning layer with polygons showing the then planned level of services for various areas of the county.	None planned	DDES
SNOWLOAD	Polygons representing ground snow load zones.	As needed	DDES
SO_XXXXX	A series of region layers representing special district overlay changers per various King County ordinances. Each layer shows the before and after changes to the modified SDOs. Layer name provides ordinance number (e.g. SO_11353).	As needed	DDES
SOOS_CREEK_RGNL_SIGNIF_RESOURCE	Polygons representing Regionally Significant Resource Areas in the Rural portions of the Soos Creek Basin Plan	None planned	DDES
SUBDIV	Polygons representing each recorded plat. Generated by dissolving tax lots on major number.	Irregular	DDES
TDR	Polygons representing parcels receiving or sending Transfer of Development Rights (TDR).	As needed	DDES
TELECOMM	Points representing telecommunications related permits. Of special interest are cell phone tower permits.	Quarterly	DDES

Name	Description	Update Frequency	Steward Agency
TEN_SPECIES	Points representing nesting sites for ten sensitive species that are protected under the regulations of the King County Critical Areas Ordinance	As needed	DDES
URBAN_CENTER	Polygons and Points representing urban centers designated under the KC Comp. Plan	As needed	DDES
WILDLIFE_HABITAT_CONSERVATION_FLAG	Polygons representing buffer distances around species nests that are designated as Wildlife Habitat Conservation Areas under the KC Critical Areas Ordinance	As needed	DDES
Z_XXXXX	A series of polygon layers representing zoning changes per various King County ordinances. Each layer shows the before and after zoning for a given ordinance. Layer name provides ordinance number (e.g. Z_11353).	As needed	DDES
ZONINGXX	Archival versions of the Zoning at the end of each given year (e.g. Zoning_00).	As needed	DDES
ESITES	Address site point of each building in King County that is also published to the SDW as ADDRESS_POINT	Daily	DES - EMD
ESN	PSAP Emergency Service Zone layer used for routing E-911 calls to the appropriate PSAP.	As needed	DES - EMD
ROADS	New roads collected during site address verification process	As needed	DES - EMD
REPMS	Real Estate Portfolio Management System database contents pertaining to County owned parcels; easements; leases (leasehold and lease fee); and some permits.	Daily	DES - FMD
FLOWMNTN	Contains depictions current and historic monitors used in a variety of projects from day to day system flow monitoring to I/I project monitoring.	As needed	DNRP - WTD
LOCALLN	Contains depiction of local sewer pipes with available attribute information	As needed	DNRP - WTD
LOCALMH	Contains depiction of local sewer facilities with available attribute information	As needed	DNRP - WTD
MDLBSNXX	Basins developed for WTD modelers through the Inflow and Infiltration project based on 2000 or 2001 data. MDLBSN02 shows proper depiction of Redmond area basins.	None planned	DNRP - WTD
MNIBSNXX	Basins developed for flow monitoring efforts through the Infiltration and Inflow project based on 2000 and 2001 data. MNIBSN02 shows proper depiction of Redmond area basins.	None planned	DNRP - WTD
POSSIBLE_END_USER	Layer file derived from a Geodatabase showing parcels of agencies who may be interested in using reclaimed water. Will be transferred from agency development library in 2008.	None planned	DNRP - WTD
RAINGAGE	Contains depictions of WTD and Water and Land Resources rain gages.	As needed	DNRP - WTD
RWSPBSN	Basins used by WTD to plan and manage wastewater flow as used in the Regional Wastewater Service Plan and until 2003. This has been superseded by WTDBASIN.	As needed	DNRP - WTD
SERVAREA_DISS	WTD service area boundary.	As needed	DNRP - WTD

Name	Description	Update Frequency	Steward Agency
SEWER_ANNO	Geodatabase feature classes in an assortment of scales annotating WTD sewer line and facilities	As needed	DNRP - WTD
SWR_AGEN	A depiction of the sewer agencies that provide flow to WTD. This data set is for cartographic and planning purposes only and does not show individual service areas or district boundaries. It should not be confused with SEWER_DIST maintained by Records and Elections.	As needed	DNRP - WTD
SWRLNDXX	Areas of sewer land delineated using local line sewer location and account information; air photos; and parcel boundaries	As needed	DNRP - WTD
UGACOMBO	Polygon showing Urban Growth Area (UGA) for King County and Snohomish County. Combined 2002 King County UGA data and 2000 Snohomish UGA data.	As needed	DNRP - WTD
WTD_HCP	WTD Habitat Conservation Plan Boundary.	As needed	DNRP - WTD
APD_RIPAR100	APD Riparian Condition Units - 100 ft stream buffers	None planned	DNRP - WLRD
APD_RIPAR25	APD Riparian Condition Units - 25 ft stream buffers	None planned	DNRP - WLRD
BATH_TOPO	Puget Sound Bathymetry	None planned	DNRP - WLRD
BEAR_LOCS	Bear sighting locations	None planned	DNRP - WLRD
BUGS_MAA	Benthic Macroinvertebrate Sampling Sites	None planned	DNRP - WLRD
CAO_AQUATIC	Critical Areas Ordinance Aquatic Buffer Zones	Unknown	DNRP - WLRD
CAO_BASINS	Critical Areas Ordinance	Unknown	DNRP - WLRD
CONTOUR40	King County Contours - 40 foot	None planned	DNRP - WLRD
COSTSHARE	Cost-shares parcels	As needed	DNRP - WLRD
CUT_AG	Current Use Taxation Program - Agricultural Properties	As needed	DNRP - WLRD
CUT_FOREST	Current Use Taxation Program - Forestry Parcels	As needed	DNRP - WLRD
CUT_PBRSTIM	Public Benefit Rating System and Timber Land Program Parcels	As needed	DNRP - WLRD
DAIRIES	Dairies and Commercial Agricultural Operations	As needed	DNRP - WLRD
DRAINAGE_PROP	King-County Owned Drainage Properties	As needed	DNRP - WLRD
FARMPAN	Parcels with Farm Plans	As needed	DNRP - WLRD
FCZD	Green River Flood Control Zone	None planned	DNRP - WLRD
FISH7	Fish distribution in WRIA 7	None planned	DNRP - WLRD
FISH7_PT	Fish distribution in WRIA 7; shapefile points	None planned	DNRP - WLRD
FISH7_SOURCE	Fish Distribution (WRIA 7) Source Table	None planned	DNRP - WLRD
FISH8	Salmon Distribution (WRIA 8)	None planned	DNRP - WLRD

Name	Description	Update Frequency	Steward Agency
FISH8_PT	Salmon Observation Locations (WRIA 8)	None planned	DNRP - WLRD
FISH8_PT_DAT	Salmon Observations Data Table (WRIA 8)	None planned	DNRP - WLRD
FISH9	Salmon Distribution (WRIA 8)	None planned	DNRP - WLRD
FISH9_PT	Salmon Observation Locations (WRIA 8)	None planned	DNRP - WLRD
FISHV	Distribution of 5 salmon species in Vashon streams	As needed	DNRP - WLRD
FISHV_PT	Point observations of 5 salmon species on Vashon.	None planned	DNRP - WLRD
FLOOD_PROP	Flood Hazard Reduction Section Flood Buyout Parcels	As needed	DNRP - WLRD
FTA	Forestry Technical Assistance	As needed	DNRP - WLRD
GREEN_HIST	Historical Green River	None planned	DNRP - WLRD
JURIS00	Incorporated Cities Year 2000	None planned	DNRP - WLRD
JURIS90	Incorporated Cities Year 1990	None planned	DNRP - WLRD
LIVESTOCK_VFD	Verified Livestock Parcels	As needed	DNRP - WLRD
LKSAMBATH	Lake Sammamish Bathymetry	None planned	DNRP - WLRD
MAJ_STRM	Major Streams and Rivers; a sub-set of WTRCRS	As needed	DNRP - WLRD
MCGARVEY_OS	4:1 parcels in the Cedar River Basin	As needed	DNRP - WLRD
PARCEL_DATA	WILDFIRE PARCEL data layer with additional attributes	Quarterly	DNRP - WLRD
POLYGON_OS	4:1 parcels in the Cedar River Basin	As needed	DNRP - WLRD
PS_BATH10	Puget Sound Bathymetry - 10 Foot Contours	None planned	DNRP - WLRD
PS_BATH20	Puget Sound Bathymetry - 20 Foot Contours	None planned	DNRP - WLRD
PS_BATH5	Puget Sound Bathymetry - 5 Foot Contour	None planned	DNRP - WLRD
RDP_BND	Rural Drainage Program Service Areas	As needed	DNRP - WLRD
RFFA	Rural Forest Focus Areas (as adopted in 2001 Comp. Plan)	As needed	DNRP - WLRD
RIVER_MI	River Miles derived from WTRCRS	As needed	DNRP - WLRD
SWDM_BOGS	2005 Surface Water Design Manual Bog Wetlands	None planned	DNRP - WLRD
TAYLOR_STANDS	Forest Stands on Taylor Mountain	As needed	DNRP - WLRD
MASTRAIL	Master database of all known current and proposed trails within King County. Parent of the Enterprise data layer TRAIL. Spatial data maintained as line features.	As needed	DNRP - PRD

Name	Description	Update Frequency	Steward Agency
PARK_FACILITY_MAST	Master database of all known park- and trail-related facilities at recreational sites within King County. Parent of the Enterprise data layer PARK_FACILITY. Spatial data maintained as point features.	As needed	DNRP - PRD
PARKMAST	Master database of all known current and proposed parks within King County. Parent of the Enterprise data layer PARK. Spatial data maintained as polygon features.	As needed	DNRP - PRD
PARKPROP_DATABASE	SQL database for Parks property information. Parent of Enterprise data layer PARK_PROPERTY.	** **	DNRP - PRD
PSAFI_DATABASE	SQL database for Parks current and historic facilities information. Parent of enterprise PARK; PARK_FACILITY; PARK_ADDRESS_TABLE; and PARK_INFO_TABLE.	** **	DNRP - PRD
BROWNFIELDS_SITES	Location of sites that are contaminated and may need assessment assistance to improve their marketability or redevelopment potential. These sites are part of the Brownfields Program. Spatial data maintained as point features.	As needed	DNRP - SWD
CEDAR_HILLS_PROPERTY_SALES	Sales of property within the legally-mandated notification zone surrounding the Cedar Hills Regional Landfill. Obtained from records of the King County Department of Assessments. Maintained as tabular data; linked to specific parcels by PIN.	Quarterly	DNRP - SWD
CLCP_SITES	Sites of cleanup events conducted under the Community Litter Cleanup Program. Spatial data maintained as point features.	Quarterly	DNRP - SWD
GEOCODES	King County EMS Geocode Grid	As needed	Public Health
BURKEBLUEPOLY	Heretofore unrecorded archaeological sites for King County	As needed	DOT - Roads
BURKEGRAYPOLY	Heretofore unrecorded archaeological sites for King County	As needed	DOT - Roads
CATCH_BASIN	Point shapes representing location of drainage catch basins.	As needed	DOT - Roads
CIPPLINE	Line shapes representing King County Capital Improvement Projects	Daily	DOT - Roads
CIPPOINT	Point shapes representing King County Capital Improvement Projects	Daily	DOT - Roads
CLOSURE	Line shapes representing Road Closures due to storm events or construction.	As needed	DOT - Roads
CLP	Recorded Cultural Resources managed by Seattle Public Utility (SPU)	As needed	DOT - Roads
COLLISIONS	Point shapes representing accident locations reported by WSDOT on unincorporated King County roads	Daily	DOT - Roads
COMMUNICATION_DEVICES	Point shapes of communication devices at respective intersections	As needed	DOT - Roads
CRREPORTS	Areas of previous cultural resource surveys	None planned	DOT - Roads
CULVERT	Point shapes representing end points of the PIPE data layer by basin to support NPDES.	As needed	DOT - Roads

Name	Description	Update Frequency	Steward Agency
DITCHES	Line shapes representing location and flow direction of ditches by basin to support NPDES.	As needed	DOT - Roads
FIBER_STRANDS	Line shapes representing Fiber installations	As needed	DOT - Roads
GLOETHNOTRAIL	Cultural features digitized from Government land Office (GLO) maps for use as shape files (feature data sources)	None planned	DOT - Roads
GLOETHPOLY	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned	DOT - Roads
GLOHISTPOLY	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned	DOT - Roads
GLOHISTPT	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned	DOT - Roads
GLOHISTRD	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned	DOT - Roads
GUARDRAIL	Line shapes representing the King County inventory of countywide guardrail	Monthly	DOT - Roads
HALS	Point shapes representing King County countywide High Accident Locations	Annually	DOT - Roads
HARS	Line shapes representing King County countywide High Accident Roadways	Annually	DOT - Roads
HIST_ARCH	Recorded historic archaeological sites for King County	None planned	DOT - Roads
KEYLOCATIONS	Points representing Key Count Locations	As needed	DOT - Roads
LAASETHNSP	Ethnographic place names for King County	None planned	DOT - Roads
LAASTCPSP	Areas of traditional cultural and religious significance for Native American groups in King County	None planned	DOT - Roads
LANDFORM	Paleo-landscape features (late Pleistocene and Holocene)	None planned	DOT - Roads
NEP	Line shapes representing King County Countywide Neighborhood Enhancement Projects	Monthly	DOT - Roads
OUTFALL	Point shapes representing departure or jurisdiction location of surface water from related drainage objects	As needed	DOT - Roads
PATHWAY	Line shapes representing countywide School Pathway Projects	Monthly	DOT - Roads
PIPE	Line shapes representing drainage pipes.	As needed	DOT - Roads
PITSITES	Point layer representing Roads-owned property which has the capacity to stockpile and quarry road materials	As needed	DOT - Roads
PREHIST_ARCH	Recorded prehistoric archaeological sites for King County	None planned	DOT - Roads
RD_PONDS	Point shapes representing retention/detention ponds.	Monthly	DOT - Roads
SIGNAL_DEVICES	Point shapes representing signals and flashers maintained in unincorporated King County and contract cities.	Quarterly	DOT - Roads

Name	Description	Update Frequency	Steward Agency
SIGNAL_WARRANT	Point locations that have met the Manual on Uniform Traffic Control Devices (MUTCD) criteria that warrants a signal to be constructed.	As needed	DOT - Roads
STRIPING	Line shapes representing installation and maintenance of Traffic Section maintained roadway marking features	None planned	DOT - Roads
ACCIDENT	Point shapes representing transit accident locations. ACCIDENT attributes include date; time; status; reviewed; road conditions; weather; judgment; severity; route and vehicle characteristics; FTA codes; on street; and cross street.	Daily	DOT - Transit
ACTIVESTOPS	Point shapes representing active Transit bus stops derived from TNET as a distance from an intersection along a link.	Daily	DOT - Transit
CLOSEDSTOPS	Point shapes representing closed Transit bus stops derived from TNET as a distance from an intersection along a link.	Daily	DOT - Transit
EMITTER_APC	Point shapes representing Transit radio frequency emitters derived from EMITTER. These points may have a different location from the physical emitter location to facilitate Automatic Passenger Counter system processing	Daily	DOT - Transit
EMITTER_AVL	Point shapes representing Transit radio frequency emitters derived from EMITTER. These points may have a different location from the physical emitter location to facilitate Automatic Vehicle Location system processing	Daily	DOT - Transit
INACTIVESTOPSS	Point shapes representing inactive Transit bus stops derived from TNET as a distance from an intersection along a link.	Daily	DOT - Transit
INCIDENT	Point shapes representing transit security incidents. INCIDENT attributes include date; route characteristics; on street; cross street; and items describing the incident type.	Daily	DOT - Transit
PENDINGSTOPS	Point shapes representing pending Transit bus stops derived from TNET as a distance from an intersection along a link.	Daily	DOT - Transit
PLANNEDSTOPS	Point shapes representing planned Transit bus stops derived from TNET as a distance from an intersection along a link.	Daily	DOT - Transit
SERVGRID	Polygon shapes representing a simple Transit service grid used on the Web for users to pick an area of interest. Information about the Transit service in that grid is provided.	As needed	DOT - Transit
SERVICE_QUALITY_DISTRICTS	Polygon features representing King County Metro Service Quality dispatch districts.	As needed	DOT - Transit
TRANS_POINT	Point shapes representing intersections of line shapes. TRANS_POINT attributes include transit timepoint key and X/Y coordinates.	Daily	DOT - Transit
TRANSIT_POLICE_DISTRICTS	Polygon features representing King County Metro Police patrol districts	As needed	DOT - Transit
XFERZONE	Point features representing bus stops that are within 100 feet of another stop on a different major route. This data is utilized by the Automated Trip Information System to aid trip planning.	Daily	DOT - Transit

Name	Description	Update Frequency	Steward Agency
ZONES	Point shapes representing all active and inactive Transit bus stops derived from street as a distance from an intersection along a link.	Unknown	DOT - Transit
2008_0P5_NOISE_CNTRS	2008 0.5 Db DNL noise contours (future case noise contours that are based on 2003 fleet mix).	As needed	DOT - Airport
2008_1P0_NOISE_CNTRS	2008 1.0 Db DNL noise contours (future case noise contours that are based on 2003 fleet mix).	As needed	DOT - Airport
RUNWAY	Runways	As needed	DOT - Airport
TAXIWAY	Taxiways	As needed	DOT - Airport
BDOL	Ballot Drop Off Locations (points)	As needed	KC Elections
PRECINCT	Excel spreadsheet of voting precinct assignment	As needed	KC Elections
PRECINCTPORTION	Excel spreadsheet of minor taxing assignments	As needed	KC Elections
STREETSEG	Street centerline master address file (MAF)	Weekly	KC Elections
REPORTING_DISTRICTS_LL	Also called Reporting Areas - a shape file that is an important component of the department's Computer Aided Dispatch (CAD) system. A reporting area is the smallest formally defined geography used by the Sheriff's Office and is a subset of a Patrol District (see below).	As needed	KCSO
OMBUDSMAN	Spreadsheet for mapping the location of complaints (by zip code) received by the Ombudsman's Office.	As needed	KC Council
CSD	ReportCard database contains contract and project level data with aggregated client demographics; service levels and outcomes.	Annually	DCHS
CSD_HSD	Street addresses of capital projects.	Annually	DCHS
DDD	Contract data on service delivery and program effectiveness	Annually	DCHS
OPD	Informix database maintains client intake data and assignment to contracted public defense firm.	Continually	DCHS

## 5.5 Deployed Applications

This table contains information about GIS related applications deployed by KCGIS program agencies. It is sorted by owner agency to mirror the order of the other sections of this document.

Owner Agency	Application Name	Status	Purpose
KCGIS Center	Address Search Web Service	In Maintenance	The Web service makes it possible for applications on any server to easily access specific search and GIS functions on KCGIS servers in a secure manner.
KCGIS Center	AgencyData	In Maintenance	Builds webpage access to Agency Data listings.
KCGIS Center	AllMetadataProcess	In Maintenance	Publishes new or updated metadata to the SDC.
KCGIS Center	AvLibShp and AvLibImg	Unsupported	These ArcView 3.x extensions provide users with streamlined methods to access and display layers in the KCGIS Spatial Data Warehouse (SDW).
KCGIS Center	COMMON_INTEREST_POINT build and Quality Assessment	In Maintenance	COMMON_INTEREST_POINT child layer geoprocessing workflow, including QA routines.
KCGIS Center	CONTOUR005_LINE children layer Build	In Maintenance	Creates index layers derived from master contour layer.
KCGIS Center	CreateTwnLYR	In Maintenance	Creates LYR Files for file-based vector and raster Plibrary3 objects.
KCGIS Center	DBInventoryMaster	In Maintenance	Various subroutines for inventory and assessment of SDE MAINT and Plibrary databases.
KCGIS Center	DGM Update Routines	In Maintenance	Geoprocessing workflow for updating Digital Ground Model elevation database.
KCGIS Center	DictionaryExtracts	In Maintenance	Various routines for creating extracts of data dictionaries and data catalogs for use in creating tables in yearly O&M Plans.
KCGIS Center	Directory2XLSCrossCheck	In Maintenance	Evaluates Non-KCGIS data contents.
KCGIS Center	Employee Training Database	In Maintenance	Track employee training.
KCGIS Center	ExtentIndex	In Maintenance	Updates full raster extent index.
KCGIS Center	Federal Way Public Schools Director Districts	In Maintenance	Display FWPS Director District boundaries and school sites over the standard base maps.
KCGIS Center	Federal Way Public Schools locator	In Maintenance	Provides an address search and an interactive map for selecting parcels and displaying school assignments.
KCGIS Center	GIS Data Distribution Application	In Maintenance	Track data distribution clients and sales.
KCGIS Center	GIS Data Locator	In Maintenance	Internal-only search engine that queries all enterprise online/offline data, including non-KCGIS data.
KCGIS Center	iMAP	In Maintenance	iMAP is a Web-based map viewer that provides online access to map layers and other related information. This map viewer generally requires a broadband Internet connection. Data are grouped into Map Sets that present data from different subject areas. As of 2010 there are 11 map sets.
KCGIS Center	KCCDSTWTR_AREA Build	In Maintenance	KCCDSTWTR_AREA geoprocessing workflow.
KCGIS Center	KCGisDateStamper	Unsupported	The KCGisDateStamper is an ArcMap extension that will place the userid and date for every change or addition to the ArcGIS database, when the extension is enabled.
KCGIS Center	KCGisDateStamperAddin	In Maintenance	The KCGisDateStamperAddin is an ArcGIS Addin that will place the userid, date for every change or addition to the ArcGIS database, when the addin is enabled. It will also calculate a 10 character PIN field from a 6 character MAJOR field and 4 character MINOR field. If none of the fields exist, nothing will happen.
KCGIS Center	KINGCO_AREA Build	In Maintenance	KINGCO_AREA geoprocessing workflow.

Owner Agency	Application Name	Status	Purpose
KCGIS Center	LibTool	In Maintenance	KCGIS LibTool is the King County enterprise data access tool.
KCGIS Center	LibTool LayersXMLCreate	In Maintenance	Various routines for constructing XML tables for use in LibTool.
KCGIS Center	LyrFileDesc	In Maintenance	Validates nightly SDW posting results.
KCGIS Center	MakeLYR	In Maintenance	Publishes new and updated LYR files to Plibrary.
KCGIS Center	MenuFindsLib	In Maintenance	Provides legacy ArcView3x AvLib application backend.
KCGIS Center	Metadata Harvest and Data Dictionaries	In Maintenance	Manages XML-based metadata document library and harvests (extracts) key elements to build data dictionaries.
KCGIS Center	MetaValidate	In Maintenance	Evaluates enterprise metadata content.
KCGIS Center	Non-KCGIS Data Posting	In Maintenance	Series of workflow routines for posting Non-KCGIS data to the SDW.
KCGIS Center	ONSITSEPTIC Build	In Maintenance	ONSITE_SEPTIC_AREA geoprocessing workflow.
KCGIS Center	Parcel Reports	In Maintenance	Integrates several reports that are based on a parcel number, including the Property Report (Assessor's data) and the Districts and Development Conditions Report.
KCGIS Center	Parcel Viewer	In Revision	Parcel search and information retrieval.
KCGIS Center	Parcel Viewer 2.0	In Revision	Provide a map-centric tool for exploring King County Parcel information.
KCGIS Center	Plib3Validate	In Maintenance	Evaluated Plibrary3 data content.
KCGIS Center	Plibrary2Snapshot	In Maintenance	Routine for creating periodic backups of the Plibrary2 shapefile library to DVD and searchable index.
KCGIS Center	PLSS_SUITE Build	In Maintenance	PLSS_TWN_AREA, PLSS_SEC_AREA, and PLSS_QTR_AREA geoprocessing workflow.
KCGIS Center	PostRep	In Maintenance	PostRep is the nightly posting and replication routine for the KCGIS Spatial Data Warehouse. The general function of this routine is to run quality control tests on all data submitted to the public library by agency data stewards. Upon passing the tests the data is "Posted" to the public library and "Replicated" into an appropriate shapefile format. PostRep is written in Python scripting language to take advantage of the geoprocessing programming model specifically designed for use with Python by ESRI.
KCGIS Center	Project Image Library	In Maintenance	Routines imbedded in workflow to add new project image mosaics to Project Image Library, update catalog/metadata, and rebuild shapefile index.
KCGIS Center	RasterMetadataPublish	In Maintenance	Publishes master raster metadata to all file-based and SDE objects.
KCGIS Center	RastStat_7500	In Maintenance	Two routines that create inventory of all 7500 tiling level objects.
KCGIS Center	RastStat_tmbr	In Maintenance	Creates master status table for all Plibrary3 township raster objects.
KCGIS Center	ResourcesIndexCreate	In Maintenance	Creates index of contents of Resources folder.
KCGIS Center	SDE2Shp	In Maintenance	Evaluates enterprise database content.
KCGIS Center	SDEStat	In Maintenance	Inventories iMAP Mapset AXL files.
KCGIS Center	Spatial Data Catalog Interface and Metadata Mgmt	In Maintenance	Hosts xml and htm metadata documents on externally-facing webpage portal.
KCGIS Center	Spatial Data Warehouse Notification (Data Digest)	In Maintenance	Creates a searchable index for all transactions published in the GIS Data News Digest.

Owner Agency	Application Name	Status	Purpose
KCGIS Center	SpatialView2ShapeFile	In Maintenance	Creates shapefile versions of TRANS_NETWORK_LINE modal type spatial views. These are not created by PostRep.
KCGIS Center	Standard Data Distribution Disk Creation	In Maintenance	Creates disk image for shapefile and GDB version of standard distributed enterprise data.
KCGIS Center	StewardTool	In Maintenance	Allows data stewards to register and post data to the enterprise spatial data warehouse.
KCGIS Center	TRS Reports	In Maintenance	View project and task hours reported in TRS (Time Reporting System).
KCGIS Center	UpdateExtentLUT	In Maintenance	Workflow routine for updating master xls catalog for raster objects.
KCGIS Center	Visual Spatial Data Catalog	In Maintenance	Creates webpage hosting thumbnails of all SDW objects.
KCGIS Center	WTRBDY_AREA Build	In Maintenance	WTRBDY_AREA geoprocessing workflow.
KCGIS Center	XMLStat	In Maintenance	Creates webpage inventory of all xml attribute values and frequency count.
KCGIS Center	ZIPCODE_CR Build	In Maintenance	ZIPCODE_CR_AREA geoprocessing workflow.
Assessments	Appeals	In Maintenance	Generates appeals documentation for the department defending appeals before King County Board of Equalization.
Assessments	eMap	In Maintenance	Provide on-line access to Dept of Assessments quarter-section map.
Assessments	eRealProp	In Maintenance	Provide access to property detail/data maintained by Assessments.
Assessments	Get Map Series Page Numbers	In Maintenance	Generates lists of maps to be updated based on the edit date of the parcel layer.
Assessments	KcamEditExtension	In Maintenance	This extension was written by KCGIS to streamline the KCAM editing process. It is a toolset that includes standard query menus, copying and endpoint tools.
Assessments	KCASHapes	Unsupported	Generates a parcel shapefile based on DOA specific needs.
Assessments	PDF Generation	In Maintenance	Generate PDF maps for appraisers to use in field.
Assessments	QSMAP	In Maintenance	The application generates the "official" Quarter-Section map produced by the Dept of Assessments.
Assessments	RealProp	In Maintenance	The RealProp application provides access to department data for viewing and update.
DDES	DDES_FC_and_Table_Update	In Revision	A Utility to transfer geographic data from the KC Spatial Data Warehouse to the DDES test SDE instance, and data from the DDES test SDE instance to the DDES production instance.
DDES	DDESSSIS	In Maintenance	A Utility to transfer enterprise tabular data from the KC Spatial Data Warehouse to the DDES SQL Server using MS SQL Server 2005 Integration Services (SSIS).
DDES	GISMO Map Viewer	In Maintenance	Counter Application for spatial Display and Query of GIS & other business data.
DDES	GISMO Reports	In Revision	Provide reports of property characteristics given parcel number, taxpayer name, permit number, or address. Based on GIS overlay and tabular data.
DDES	Update	In Revision	A Utility to move shape file based geographic data from the test environment to the production environment for Base2 and Autoplot applications. Also replicates a portion of that production environment to a local machine at the remote Redmond Ridge site.
DES - FMD	REPMS	In Maintenance	Real Estate Portfolio Management System.

Owner Agency	Application Name	Status	Purpose
Public Health	West Nile Virus App	In Maintenance	Track KC facilities such as ponds, ditches for mosquito larvae count and treatment of West Nile Virus.
DNRP - WTD	CSO Data Portal	In Maintenance	To provide better access to a wide range of data that have not been leveraged in the past.
DNRP - WTD	Sea Level Rise Tool	In Maintenance	This tool was designed to run different sea level rise scenarios and assess the impact to different properties or facilities.
DNRP - WLRD	ArcIMS Mapsets - WLRD	In Maintenance	View GIS data layers in an interactive map.
DNRP - WLRD	CITY_3CO_AREA Build	In Maintenance	CITY_3CO_AREA and CITY_3CO_UNINC_AREA geoprocessing workflows.
DNRP - WLRD	DNRP GIS Library Data Catalog	In Maintenance	Locate/Search different GIS datasets available on DNRP's GIS Library – DNRPLIB.
DNRP - WLRD	Flood Photo Viewer	In Maintenance	View flood photos taken along major river systems in King County, Washington during a flood event.
DNRP - WLRD	Green River inundation area lookup	In Maintenance	Lookup if an address, parcel or condo falls within 25,000 cfs inundation area based on US Army Corps of Engineers flow modeling along lower and middle Green River.
DNRP - WLRD	Groundwater Well Data	In Maintenance	Search for groundwater information filtered by geographic criteria (such as city, watershed, Groundwater Management Areas) or attributes (such as the well log availability).
DNRP - WLRD	Parcel Alert LookUp System (PALS)	In Maintenance	A mapping utility to identify properties of concern in King County.
DNRP - WLRD	Salmon Watcher Monitoring Site Viewer	In Maintenance	View salmon watcher program monitoring locations.
DNRP - WLRD	Sandbag Distribution Location Viewer	In Maintenance	View sandbag and sand pick-up distribution locations activated in preparation of a flood and during a flood event.
DNRP - WLRD	Snoqualmie Watershed Riparian Photo Viewer	In Maintenance	View oblique photos taken along the Snoqualmie River in 2001.
DNRP - WLRD	Stormwater Facilities Data Replication	In Maintenance	Copy data from WLR Division databases to GIS enterprise.
DNRP - WLRD	TOPO_CATCHMENT Build	In Maintenance	TOPO_CATCHMENT and child layer geoprocessing workflow.
DNRP - WLRD	WTRCRS_3CO Build	In Maintenance	WTRCRS_3CO geoprocessing workflow.
DNRP - WLRD	WTRCRS_LINE Build	In Maintenance	WTRCRS_LINE route generation and QA.
DNRP - Parks	iMap - Parks Map Set	In Maintenance	Online map application used to identify parks, trails, and recreation-related facilities in King County.
DNRP - Parks	Park Property	In Maintenance	Data entry system to update Parks' property information.
DNRP - Parks	ParkFinder	In Maintenance	Web-based application which will provide responsive, user-friendly data query and mapping capabilities for users seeking information on King County's parks, trails, and recreation-related facilities.
DNRP - Parks	ParkView	In Maintenance	Provide users with tools and functionality to enable them to create their own maps of King County parks, trails, and recreation-related facilities, along with other KCGIS enterprise data which are of interest.
DNRP - Parks	PSAFI	In Maintenance	A data entry system to update Parks data.
DNRP - SWD	Brownfields Data Entry Interface	In Maintenance	Assist in maintenance of complete, current information for Brownfields Program cleanup sites.
DNRP - SWD	Cedar Hills Property Sales Data Entry Interface	In Maintenance	Mapping and reporting of property sales within the judicially-designated notification zone surrounding the Cedar Hills Regional Landfill.

Owner Agency	Application Name	Status	Purpose
DNRP - SWD	CLCP Data Entry Interface	In Maintenance	A data entry interface for tracking and recording sites and activities of the Community Litter Cleanup Program.
DNRP - SWD	Construction/Demolition Debris Reuse/Recycling Site Locator	In Maintenance	Enable users to list and map locations of businesses and other organizations that accept specific types of construction and demolition materials for reuse, recycling, or disposal.
DNRP - SWD	Garage/Yard Sale Online Mapping Utility	Unsupported	Enable users to list their garage and yard sales online and search for sales that others have listed.
DNRP - SWD	Illegal Dumping Jurisdiction Verifier	In Maintenance	Enable Solid Waste Division staff to quickly and accurately verify jurisdictions for locations of reported illegal dumping.
DOT - Road Services	Adopt-A-Road	In Maintenance	The Adopt-A-Road web map displays the available routes to adopt as well as those routes that have been adopted and the adopting organization.
DOT - Road Services	Bicycling Guidemap	In Maintenance	The bicycling guidemap is a map providing cyclists the ability to pan and zoom to an area of interest and print the map.
DOT - Road Services	Collision Viewer	In Maintenance	Review mapped collisions. Validate requests from Washington State.
DOT - Road Services	My Commute	In Maintenance	To provide citizens and staff accessibility to quality road closure and condition information displayed on an interactive web map (formerly known as the Road Alert).
DOT - Road Services	NON_MOTORIZED_EVT Build	In Maintenance	Various routines for assembling components for BIKE_FACILITIES_LINE layer and related bicycle map data components.
DOT - Road Services	Road Alert Editor	In Maintenance	To create and update road closures and condition information via secure internet connection.
DOT - Road Services	RoadsLIB RecPostComp	In Maintenance	To reconcile and post each editor's named version to SDE's default, compress the geodatabase and send a success or failure notification email.
DOT - Road Services	RSD Post Reports	In Maintenance	A web reporting application that lets users view the event logs created by RSDPost to monitor success and failures of nightly processing.
DOT - Road Services	RSDPost	In Maintenance	Programmatically post updates from the Roads GIS SDE data maintenance environment (RSDMaint) to the Roads GIS SDE Library (RSDLib), and from RSDLib to the KCGIS SDE pre-production environment (gisprod.maint).
DOT - Road Services	RSDPost Config	In Maintenance	This is a web application that allows RSD GIS administrators to add and modify layers to be posted via the RSDPost application, including source and target, scheduling ongoing and on-demand posts, and setting privileges on the target.
DOT - Road Services	Traffic Counts	In Maintenance	The Traffic Counts application provides the locations where traffic counts are collected and displays the Average Daily Traffic (ADT) counts by location per year.
DOT - Road Services	Transportation Needs Viewer	In Maintenance	Web mapping application displaying transportation improvement projects recommended by the King County Road Services Division and approved by the Metropolitan King County Council to serve unincorporated King County's transportation needs, projected to the year 2022.
DOT - IT GIS	Aspmail4	In Maintenance	Messaging service that is used to send the status of automated processes.
DOT - IT GIS	AVL	In Maintenance	Facilitates bus fleet tracking.
DOT - IT GIS	AVMaps	In Maintenance	Layer and cartographic automation tool.
DOT - IT GIS	AVTabs	In Maintenance	Schedule table builder.
DOT - IT GIS	BackupLibrary	In Maintenance	This application creates a backup of the data library on TRVGIS05.

Owner Agency	Application Name	Status	Purpose
DOT - IT GIS	BtReport	In Maintenance	Comparison Reports.
DOT - IT GIS	BusStopProjection	In Maintenance	BusStopProjection.py.
DOT - IT GIS	CopyTabsExtract	In Maintenance	This application copies data from the TABS server to TRVGIS01 necessary for the AvTabs application.
DOT - IT GIS	CreateMOGeocodeIndexes	In Maintenance	Creates MapObject geocode indexes to aid field querying.
DOT - IT GIS	DataConn	In Maintenance	This is a COM object that provides a centralized ODBC data connection for use by various applications that connect to the Transit Oracle database.
DOT - IT GIS	EmitterChange	In Maintenance	Tracks changes in vehicle location emitter locations.
DOT - IT GIS	EmitterLinks	In Maintenance	Creates a table of streets within 250 feet of a transit emitter to support AVL applications.
DOT - IT GIS	GIS2ATIS	In Maintenance	Provide GIS data for the Metro Trip Planner.
DOT - IT GIS	LicenseManagerRestart	In Maintenance	Restarts the ArcGIS License Manager to eliminate hung licenses.
DOT - IT GIS	MapCutter	In Maintenance	This application uses ArcView to create map images (GIFs) for use with the interactive public website Tracker which provides real-time bus information for a specific timepoint or geographic area.
DOT - IT GIS	Metro Online - BellevueRedmond Connections	In Maintenance	To enable the eastside ridership to evaluate the impacts of the RapidRide B-Line on their existing transit routes.
DOT - IT GIS	Metro Online InMotion Interactive Map	In Maintenance	An interactive map on Metro Online that provides Transit users with information related to performing non-commute trips by bus in their area.
DOT - IT GIS	Metro Online--Interactive Map Route 70 Stop Spacing	Unsupported	Inform ridership on bus stops proposed for closure to streamline travel and enhance OTP (On Time Performance).
DOT - IT GIS	Metro Online--Interactive Map Route 75 Stop Spacing	In Maintenance	Inform ridership on bus stops proposed for closure to streamline travel and enhance OTP (On Time Performance).
DOT - IT GIS	MMI	In Maintenance	This application provides the Transit Emergency Coordinators an easy-to-use interface for connecting and managing communications with Transit coaches.
DOT - IT GIS	MoEmitter	Unsupported	Vehicle Location emitter data maintenance tool.
DOT - IT GIS	OBS_Extract	In Maintenance	GIS data provision for the new On Board System automated bus system.
DOT - IT GIS	Plib2Prd	In Maintenance	Data transfer routines.
DOT - IT GIS	Public Data Requests	In Maintenance	Transit data provisioning application.
DOT - IT GIS	Publish_Tnet	In Maintenance	Pushes TNET - related data into consuming directories and locations.
DOT - IT GIS	Publish_Tpoints	In Maintenance	Maintains TPOINT data for TNET.
DOT - IT GIS	Publish_Transit	In Maintenance	Nightly transit data management.
DOT - IT GIS	Recnpost_compress	In Maintenance	Used to reconcile and post each TNET SDE named version to the parent version then compresses the state tree.
DOT - IT GIS	RecPostCompSync Suite	In Maintenance	To reconcile, post, compress and synchronize TNET data edits between the child versions of TNET and the master.
DOT - IT GIS	Route_Footprint_Generator (formerly AS)	In Maintenance	Service footprint generator.
DOT - IT GIS	StopShapeExport	In Maintenance	Bus stop shapefile creation/data updater.
DOT - IT GIS	TNET Editor	In Maintenance	TNET editing extension.

Owner Agency	Application Name	Status	Purpose
DOT - IT GIS	TP Maps	In Maintenance	Creates maps of Time Points, a component needed for bus scheduling.
DOT - IT GIS	Transit GIS Toolbox	In Maintenance	Query and display tool for Transit Agency data. Modules that maintain stops, route/stop sequences, and Time Points and Time Point Interchanges.
DOT - IT GIS	Transit Service Quality GIS	In Maintenance	Mobile web-based GIS containing Transit agency and enterprise GIS data.
DOT - IT GIS	TransitSDE2Maint	In Maintenance	TransitSDE2Maint.py.
DOT - IT GIS	TransitShape2Maint	In Maintenance	TransitShape2Maint.py.
DOT - IT GIS	TransitTable2Maint	In Maintenance	TransitTable2Maint.py.
OPSB	Annexation Initiative Map	In Maintenance	Allow users to examine addresses within potential annexation areas.
OPSB	Census Viewer	Unsupported	Allows users to view maps and tables for King County census data.



## 6 Appendix B: KCGIS Center Services

The KCGIS Center provides services through three lines of business. These include the centralized services provided by Enterprise Operations, the technical and professional services provided by Client Services, and the business specific services provided by Matrix Staff Services. This appendix provides an overview of services provided by Enterprise Operations and Client Services. For examples of services provided by Matrix Staff Services refer to the GIS work programs for the five agencies currently supported by matrix staff.

### Enterprise Operations

KCGIS Governance Structure Support – Administrative support to the KCGIS Oversight and Technical committees for their routine activities, as well as administrative and professional support to the committees for occasional special projects. Also included in this service are professional and technical support to help develop and serve as custodian of KCGIS standards and best practices, as well as coordinate drafting and publication of the annual KCGIS O&M Plan.

KCGIS Priority Initiatives – Professional and technical support to priority work initiatives as identified by the KCGIS Technical Committee. The level of staff commitment to priority initiatives is significant and is usually in the range of 3.0 FTE each year. See Section 3 of this document for a detailed discussion of the priority initiatives for 2011.

KCGIS Program Coordination – Facilitate coordination and communication across the organizational boundaries of King County agencies. This is in part accomplished by administering and staffing interagency groups such as the KCGIS Users Group, the GIS Application Developers Group, and the Digital Imagery Group. Support is also provided on an ad hoc basis to facilitate discussion and resolution of cross agency GIS issues as they arise.

Regional GIS Coordination – Represent the interests of the KCGIS community at the regional, state, and national level. This includes providing professional support to regional GIS initiatives and collaborations.

Marketing – A program of targeted communications about the benefits and services of the KCGIS Center. The goal of the marketing program is to increase awareness and use of KCGIS resources and services, in order to enhance the efficiency of government operations, to broaden the financial base supporting KCGIS, and to promote regional GIS collaboration.

Spatial Data Warehouse (SDW) – The core responsibility of the KCGIS Center is to manage all components of the enterprise SDW including; the hardware and software infrastructure that comprise the SDW; the processes that control and monitor the SDW including database administration, data loading, and data access; and the procedures that keep SDW contents logically organized and thoroughly described with accurate and complete metadata.

KCGIS Center Website – Manage all components of the KCGIS Center Internet and intranet websites including the Spatial Data Catalog, and the map compendium page, as well as Web pages describing significant projects and services.

GIS Enterprise Applications – Develop and maintain a series of utilities and applications to support the enterprise GIS, agency GIS professionals, and GIS end-users. These services include scripts and programs that perform automatic updates, batch processing, and system integrity checks; applications that support and enable agency GIS data stewards, and Web based and desktop applications that provide access to varying levels of GIS functionality for end-users with GIS skills ranging from novice to advanced.

GIS Data Coordination, Acquisition, Maintenance, and Distribution – The KCGIS Center has several responsibilities in regards to management of GIS data. Broadly these include: a cross agency inventory and coordination function to maintain the integrity of the SDW and promote continuous data improvement (this includes support to the King County Assessor to integrate parcel data edits into the county's cadastral base); an acquisition program to obtain (or exchange when possible) and organize GIS data from local, regional, state, and federal agencies; a stewardship program to maintain a set of data layers as an enterprise service; and a distribution function to make KCGIS data available via an Internet data download portal.

Contract Management – Negotiate and manage vendor contracts for GIS software licensing and maintenance, and consultant contracts for GIS services.

GIS Education and Outreach – Promote the uses and benefits of GIS technology to county staff, local agencies, and the public through a variety education and outreach opportunities. Examples include briefings, seminars, user and interest groups, and videos.

**Client Services**

The KCGIS Center Client Services Unit meets the custom needs of any client seeking services. Customers include county staff needing maps or spatial analysis, GIS end-users or professionals who need training or specialized technical assistance, and managers needing skilled staff to help meet project or peak workload demands. KCGIS Center client services are provided on a full cost reimbursable basis. In 2011 the standard Client Services' hourly labor rates range from \$97 - \$130 per hour. These rates assume 118 billable hours per month per staff member, and apply to trained, experienced, multi-skilled GIS professionals working in a variety of specialty areas. Included in calculating the hourly billing rate are individual salary, paid leave, and benefits, KCGIS Center overhead costs for management, training, materials, and supplies, and other central overhead costs passed on to the KCGIS Center.

**2011 Standard GIS Client Services Hourly Billing Rates**

GIS Analyst (GIS Journey Level):	\$97.00
GIS Analyst (GIS Senior Level):	\$100.00
Senior Cartographer:	\$105.00
GIS Programmer (GIS Master Level):	\$105.00
GIS Project Manager:	\$110.00
GIS Consultant:	\$110.00
GIS Center Manager:	\$130.00

A GIS Technician billing rate is available for long term multi-month data development or data maintenance project work. This special billing rate assumes 138 billable hours per month per GIS Technician (GIS Journey level only). This rate applies to trained GIS technicians for standard repetitive GIS data development or maintenance work only (e.g. digitizing, geocoding, etc.). It is also generally limited to projects with a minimum duration of two months, and which involve ongoing production-level data development via established methodology. This special billing rate is set at \$89.40 per hour in 2011.

The KCGIS Center Client Services Manager is the point of contact for service requests and customer relationship management. The range of services provided by Client Services includes:

Mapping – Client Services annually produces hundreds of maps for meetings and publications. Rapid turn-around times and incorporation of custom data are standard features of this service.

GIS Analysis and Reporting – Combining and analyzing GIS data sets is often needed when generating policies, making critical business decisions, or conducting research or investigations. Client Services has extensive experience performing a wide variety of complex analyses and incorporating the results into reports or presentations.

High-Quality Cartography – Client Services provides specialized high-quality cartography that combines the flexibility of GIS with the artistry of graphic design. Several Client Services map products have won national and international awards. Examples of products created include brochures, booklets, graphics for outdoor signage, and posters.

KCGIS Data Sales – A standard set of King County GIS data is available via DVD. The DVD is updated and published four times per year (January, April, July, and October). The DVD costs \$225 and is available by mail order. This service is due to be discontinued by mid-2011 as it is largely redundant to the KCGIS Data Portal now in place.

Custom Data Requests – Client Services fills custom data requests at the hourly GIS Analyst rate (plus materials), with a three-hour minimum. All data requests that include aerial imagery and LiDAR (elevation) data are considered custom requests (the preferred format and spatial extent of each request is almost always unique). The goal of the Client Services Unit is to provide exactly the data needed, in the appropriate format, in a timely manner, for the lowest possible cost.

GIS Data Development – Client Services provides a full range of data development services for improving or updating existing GIS data, creating new GIS data, or for integrating non-GIS information into GIS compatible formats.

GIS Application Development – Making GIS information available on the Internet or via a customized desktop interface increases the utility and visibility of that information. KCGIS Center Client Services has created a number of significant applications for a variety of customers.

GIS Training Express – Client Services offers a range of GIS training courses at the King Street Center computer training facility or on-site at a client's facility. Courses are taught by KCGIS Center staff (including two authorized ESRI trainers). Tuition varies based on cost factors but is generally extremely cost-effective when compared to software training offered by other vendors.

GIS Mentoring – Mentoring is available from Client Services, through its Training Coordinator and other support personnel. Free support is provided in reasonable, brief increments to both internal and external GIS users. This service is intended to resolve issues and problems that can be cleared up during a phone conversation, an e-mail exchange, or a brief meeting. More comprehensive mentoring programs that cover ongoing or significant needs can be arranged at the standard Client Services rate.

GIS Services Express – Client Services offers a packaged service, which includes eight hours of free consulting time and discounts for King County training in exchange for a commitment by the client to a block of 100 hours of service. This service is available to any agency seeking help with their GIS program. It provides a mechanism to receive a bundled package of GIS services, and is an excellent opportunity for agencies that are looking to implement their own GIS capabilities, but need guidance and help to get started.

GIS Project Management and Consulting Services – Client Services offers skilled project management and consulting support. Typical services in this area include GIS needs assessment, GIS staff hiring assistance, GIS implementation, and GIS infrastructure review and design.



## 7 Appendix C: Committees

### 7.1 Oversight Committee

Details regarding the roles, responsibilities, and structure of the KCGIS Oversight Committee are provided in section 2.2 of this document. Presented here are the recent membership histories for the committee and the committee's current charter.

#### 7.1.1 Membership History

##### *2011 GIS Oversight Committee Representatives*

Agency	Sub-Agency	Representative	Term
Dept. of Assessments	--	Iris Hoffner	Jan-Dec
Dept. of Development and Environmental Services	--	Tom McBroom	Jan-Dec
Dept. of Executive Services**	--	Katie Moriarty	Jan-Dec
Dept. of Natural Resources and Parks	--	Gary Hocking*	Jan-Dec
Dept. of Transportation	Road Services	Greg Scharrer	Jan-Dec
Dept. of Transportation	Information Technology	Stephen Bell	Jan-Dec

\* Chair

\*\* Rotating Agency

##### *2010 GIS Oversight Committee Representatives*

Agency	Sub-Agency	Representative	Term
Dept. of Assessments	--	Iris Hoffner	Jan-Dec
Dept. of Development and Environmental Services	--	Tom McBroom	Jan-Dec
Dept. of Executive Services**	--	Katie Moriarty	Jan-Dec
Dept. of Natural Resources and Parks	--	Gary Hocking*	Jan-Dec
Dept. of Transportation	Road Services	Greg Scharrer	Jan-Dec
Dept. of Transportation	Transit	Stephen Bell	Jan-Dec

\* Chair

\*\* Rotating Agency

## 7.1.2 Charter

**King County**  
**GIS STAKEHOLDER/OVERSIGHT COMMITTEE**  
**April 2004**

***Purpose:***

This charter establishes roles, membership, and guidelines for the GIS Oversight Committee

***Role:***

As the GIS Oversight Committee, the committee will:

- Review and approve GIS related budgets for all agencies;
- Review and approve the countywide GIS Business Plan;
- Review and approve all GIS work programs, including operations and maintenance plans, with associated costs identified;
- Review and approve King County GIS Standards;
- Review and approve technical and policy recommendations from GIS Technical Committee;
- Provide annual report on work program status to the Technology Management Board;
- Recommend cost allocation model for Central GIS services;
- Make recommendations to the Technology Management Board as needed;
- Resolve issues referred to GIS Oversight Committee as needed.

***Leadership:***

The representative from the Department of Natural Resources and Parks will chair the committee.

***Membership:***

GIS Oversight Committee membership shall consist of a representative from the following county agencies: DNRP, DOT-Transit, DOT-Road Services, DDES, and Assessments. Members must have authority for: budget approval; GIS programs within their department; representation of customers and end users; and policy decisions. GIS Oversight Committee will appoint at least one rotating member for a one-year term from agencies and programmatic areas that have significant involvement in GIS. Members will not serve on both the GIS Technical Committee and the GIS Oversight simultaneously.

***Operating Assumptions and Guidelines:***

- Meetings will be held no less than quarterly and more often if necessary.
- Decisions will be made by consensus. If consensus cannot be reached within the GIS Oversight Committee, the issue will be referred to the Director of the Department of Natural Resources and Parks.
- The GIS Oversight Committee will establish ground rules.

## 7.2 Technical Committee

Details regarding the roles, responsibilities, and structure of the KCGIS Technical Committee are provided in section 2.3 of this document. Presented here are the recent membership histories for the committee, the committee's current charter, and objectives statements for the committee's active work groups.

The KCGIS Technical Committee publishes its agendas, minutes, quarterly reports, and other documents to the Public Folders on the KC WAN, which are available through the county's e-mail system. The path to the KCGIS Technical Committee documents is Public Folders / All Public Folders / Inter-Agency / GIS / GIS Technical Committee.

### 7.2.1 Membership History

#### 2011 GIS Technical Committee Representatives

Agency	Sub-Agency	Representative	Term
Office of Performance, Strategy and Budget	--	Nanette Lowe	Jan-Dec
Dept. of Assessments	--	Christie Most	Jan-Dec
Dept. of Community and Human Services	--	Sean Power	Jan-Dec
Dept. of Development and Environmental Services	--	Paul McCombs	Jan-Dec
Dept. of Elections	--	Dave Wilson	Jan-Dec
Dept. of Executive Services	Office of Emergency Management	Khalid Khan	Jan-Dec
Dept. of Executive Services	Facilities Management	Kathi Murata	Jan-Dec
Dept. of Natural Resources and Parks	KCGIS Center	George Horning	Jan-Dec
Dept. of Natural Resources and Parks	Parks	Greg Stought	Jan-Dec
Dept. of Natural Resources and Parks	Solid Waste	Greg Stought	Jan-Dec
Dept. of Natural Resources and Parks	Wastewater	Bob Swarner	Jan-Dec
Dept. of Natural Resources and Parks	Water and Land Resources	Ruoxi Zhang	Jan-Dec
Dept. of Public Health	--	Dmitry Sharkov*	Jan-Dec
Dept. of Transportation	Road Services	Tamara Davis	Jan-Dec
Dept. of Transportation	Information Technology	Stephen Krippner	Jan-Dec
Dept. of Transportation	Airport	Vanessa Ng	Jan-Dec
King County Council	--	Ricardo Bautista	Jan-Dec
Sheriff's Office	--	Miranda Hett**	Jan-Dec

\* Chair

\*\* Vice-Chair

**2010 GIS Technical Committee Representatives**

<b>Agency</b>	<b>Sub-Agency</b>	<b>Representative</b>	<b>Term</b>
Office of Strategic Planning and Performance Management	--	Nanette Lowe	Jan-Dec
Dept. of Assessments	--	Christie Most	Jan-Dec
Dept. of Community and Human Services	--	Rachael Black Sean Power	Jan-Sep Oct-Dec
Dept. of Development and Environmental Services	--	Paul McCombs	Jan-Dec
Dept. of Elections	--	Harry Sanders	Jan-Dec
Dept. of Executive Services	Office of Emergency Management	Khalid Khan	Jan-Dec
Dept. of Executive Services	Elections	Harry Sanders	Jan-Dec
Dept. of Executive Services	Facilities Management	<i>Vacant</i> Kathi Murata	Jan-Oct Nov-Dec
Dept. of Natural Resources and Parks	KCGIS Center	George Horning	Jan-Dec
Dept. of Natural Resources and Parks	Parks	Greg Stought	Jan-Dec
Dept. of Natural Resources and Parks	Solid Waste	Greg Stought	Jan-Dec
Dept. of Natural Resources and Parks	Wastewater	Bob Swarner	Jan-Dec
Dept. of Natural Resources and Parks	Water and Land Resources	Ruoxi Zhang	Jan-Dec
Dept. of Public Health	--	Dmitry Sharkov**	Jan-Dec
Dept. of Transportation	Road Services	Tamara Davis	Jan-Dec
Dept. of Transportation	Transit	Stephen Krippner*	Jan-Dec
Dept. of Transportation	Airport	Vanessa Ng	Jan-Dec
King County Council	--	Ricardo Bautista	Jan-Dec
Sheriff's Office	--	Miranda Hett	Jan-Dec

\* Chair

\*\* Vice-Chair

## 7.2.2 Charter

### *King County* **GIS TECHNICAL COMMITTEE**

#### *Charter*

*Revised – 1/25/2011*

**Purpose:**

This charter establishes roles, membership, and guidelines for the GIS Technical Committee.

**Role:**

As the GIS Technical Committee, the committee will:

- Report to the GIS Oversight Committee;
- Recommend policy for countywide GIS technology to GIS Oversight Committee;
- Develop an annual GIS Business Plan and work program;
- Develop and recommend GIS templates and standards for the countywide GIS program;
- Educate departments about the value GIS will add to business practices;
- Maintain an inventory of countywide GIS data and applications;
- Prepare quarterly reports on the status of the countywide GIS program.

**Leadership:**

The committee will vote annually for chair and vice-chair positions.

**Membership:**

Membership will consist of one representative from the following King County GIS user agencies:

Assessments	DES-Facilities Management	DNRP-Water & Land Resources
OPSB	Elections	Public Health
DCHS	KCGIS Center	Sheriff's Office
County Council	DNRP-Parks and Recreation	DOT-Airport
DDES	DNRP-Solid Waste	DOT-Road Services
DES-E911 Program	DNRP-Wastewater Treatment	DOT-Information Technology

The list of participating GIS user agencies will be reviewed and updated yearly. Members will not serve on both the GIS Technical Committee and the GIS Oversight Committee simultaneously.

**Operating Assumptions and Guidelines:**

- Meetings will be held at least monthly, and more often if necessary.
- Decisions will be made by consensus of members or designated alternates present. If consensus cannot be reached within the GIS Technical Committee, the issue will be referred to the GIS Oversight Committee.
- GIS Technical Committee will establish ground rules.

### 7.2.3 Work Groups

The KCGIS Technical Committee will at its discretion create work groups to address technical and programmatic issues. The KCGIS Technical Committee currently has two “chartered” work groups (Digital Imagery, and GIS Operations and Maintenance) and a handful of informal groups. The chartered work groups are given clear objectives by the KCGIS Technical Committee, in order to focus and guide the long term efforts of these group’s.

#### 7.2.3.1 Digital Imagery

**Objectives Statement:**

The purpose of the Digital Imagery Working Group is to develop and manage a long-term acquisition and coordination strategy for geo-spatial digital imagery that meets planning and engineering-level requirements for all King County Departments.

The group is tasked by the GIS Technical Committee to be knowledgeable of current digital imagery assets and future digital imagery needs, research and recommend acquisition solutions, coordinate with internal and external agencies where appropriate, and explore realistic funding options.

The goals of the working group include:

- Provide a resource to county departments in need of geo-spatial imagery and maximize opportunities for cost reduction and elimination of duplicative efforts within the county
- Develop, in coordination with the KCGIS Center, a catalog of existing geo-spatial imagery products in the county
- Develop an inventory of current imagery products, users, user needs and purposes, current and potential funding sources, and technical requirements - including spatial accuracy, resolution, spectral issues, file access and handling issues, acceptable latency of imagery
- Identify areas of common and unique imagery needs, and classify in the most succinct way possible the various needs into general categories to simplify resolution of potentially conflicting efforts
- Work to develop cooperative ventures with other agencies to minimize and share costs, maximize suitability, and where appropriate eliminate duplicative effort among agencies in acquiring new aerial imagery
- Investigate and make recommendations on potential imagery acquisitions
- Evaluate and report on emerging trends pertinent to King County geo-spatial imagery needs
- Review and edit (as appropriate) metadata for imagery sets in support of KCGIS data coordinator
- Develop guidelines and recommendations for use of the various imagery products in cooperation with the product authors
- Develop training/educational materials to assist county users in maximizing the use of imagery
- Develop or provide assistance in developing contracts and specifications for acquisition and/or processing of geo-spatial imagery

#### 7.2.3.2 GIS Operations and Maintenance

**Objectives Statement:**

The GIS Operations and Maintenance Workgroup will produce an annual working document which: 1) Outlines the roles and responsibilities for the countywide GIS program; 2) Describes the current status of GIS services, applications, data and hardware; 3) Delineates the coordinated department level work plans for the coming year; and 4) Sets goals for the future technical direction of the countywide GIS program.

With the publishing of this document (the “2011 King County GIS Operations and Maintenance Plan”) the work group has fulfilled its responsibilities for 2010. In the second half of 2011 the work group will begin

efforts to draft the 2012 plan. See [www.kingcounty.gov/operations/GIS/About/O\\_M.aspx](http://www.kingcounty.gov/operations/GIS/About/O_M.aspx) on the KCGIS Center website for the most recent published version.



## 8 Glossary

■

### **.NET**

Microsoft published set of software technologies used to develop small building-block applications that can connect to each other as well as to other, larger applications over the Internet. Used with various programming languages such as Visual Basic and Active Server Pages. See also listings for VB and ASP.

## A

### **Accuracy**

The degree to which data represent the real world whether it regards geographic location or attribute.

### **Agency Data**

Data primarily for internal use by the King County agency being discussed, typically not shared with other agencies and not posted in the KCGIS Spatial Data Warehouse.

### **AIRS Form**

A form required for the processing of monetary inter-fund transfers between King County budget units.

### **ALI**

*Automatic Location Identifying*

A feature by which information is provided to a public safety answering point identifying the location, the latitude and longitude of a call to a public safety answering point.

### **AML**

*Arc Macro Language*

AML is an interpreted macro (script) language which translates and executes ESRI Arc/INFO commands.

### **APC**

*Automatic Passenger Counting*

An information system used by Transit to collect, process, summarize, publish, and manage daily ridership counts.

### **Arc/INFO or ArcInfo**

ESRI published GIS software. Used extensively by GIS programs within King County. Significant changes were introduced between ArcInfo 7.x and ArcInfo 8.x. Versions before 8.0 are sometimes referred to as "workstation". Versions after 7.0 use an entirely new data structure.

### **Arc8.x or Arc9.x**

ESRI published GIS software. See listing for Arc/INFO.

### **ArcCatalog**

ESRI published GIS software that organizes and manages GIS information such as maps, globes, data sets, models, metadata, and services.

### **ArcEngine**

ESRI published GIS software. It allows core ArcObjects to be embedded in custom desktop applications. It replaces Map Objects.

### **ArcExplorer**

ESRI published GIS software. A lightweight GIS data viewer.

### **ArcGIS**

ESRI published GIS software. See listing for Arc/INFO.

### **ArcIMS**

*Internet Map Service*

ESRI published software solution for distributing mapping and GIS data and services on the Web.

### **ArcObjects**

ESRI published collection of software components with GIS functionality and programmable interfaces, based on the COM protocol. Often used with Visual Basic.

See also listing for VB.

### **ArcPad**

ESRI published GIS software. It runs on hand held devices and is used to reference and collect GIS data in the field.

### **ArcSDE**

*Arc Spatial Data Engine*

ESRI published software solution for storing Geographic data in a RDBMS.

### **ArcServer**

ESRI published GIS software. It provides server-side Geographic data storage, map services, spatial analysis functions, etc. An umbrella product name that covers all server functionality including ArcSDE and ArcIMS.

### **ArcView**

ESRI published GIS software. Used extensively by GIS programs within King County. Significant changes were introduced between ArcView 7.x and ArcView 8.x.

Versions before 8.0 are based on a unique code base. Versions after 3.0 are a limited functionality version of ArcInfo 8.x. See listing for ArcInfo.

### **ASCII**

*American Standard Code for Information Interchange*

The predominant character set encoding of present-day computers.

### **ASP**

*Active Server Pages*

Microsoft published scripting language used to create Web pages. The scripting is stored and executed on the server hardware. See also .NET listing.

**Author**

Person or organization responsible for collecting and/or encoding data into a GIS readable format.

**Avenue**

An object oriented scripting language for ArcView 3.x or earlier.

**AVL**

*Automatic Vehicle Location*

An information system with an interactive graphic map display used by Transit coordinators to track revenue coaches and manage service in near real time.

**B**

**Back End**

The portion of a computing environment dealing with Servers and information system that the End User does not deal with directly.

**Bathymetric**

Relating to the measurement of depths, especially of depths in bodies of water.

**Benthic**

The collection of organisms living on or in the sea or lake bottoms.

**Best Practices**

The best possible way of doing something; it is commonly used in the fields of business management, software engineering, and medicine, and increasingly in government.

**Buffer**

A type of GIS analysis that calculates the area within a given distance from a set of geographic features.

**C**

**CAD (1)**

*Computer Aided Drafting*

A computer system used to create detailed measured drawings. Used for Architectural, Engineering, and other plans.

**CAD (2)**

*Computer Aided Dispatch*

A computer system used to aid in the dispatch of emergency vehicles to respond to incoming calls.

**CAO**

*Critical Areas Ordinance*

Ordinance passed in October 2004 to protect Critical Areas in unincorporated King County. Critical Areas include both hazardous areas (such as floodplains and steep slopes) and

environmentally sensitive areas (like wetlands and streams). Critical areas also include areas that are important for protecting groundwater.

**Cadastral**

A public record, survey, or map of the value, extent, and ownership of land as a basis of taxation.

**Cadastral Base**

Layer depicting the extent and ownership of land parcels.

**CARS**

*Citizen Action Requests*

Reports from Citizens in King County regarding drainage problems.

**CARTS**

*Citizen Action Request Tracking System*

A computer system used to track CARS.

**CASE**

*Computer Aided System Engineering*

See listing for ESRI CASE extension.

**CIP**

*Capital Improvement Program*

A portion of the King County budget containing capital construction projects, often including a list of projects to be financed and constructed over a 6-year period. Each project includes one or more of the following elements: acquisition of a site and/or existing structure, program or site master planning, design and environmental analysis, design, construction, major equipment acquisition, reconstruction, demolition or major alteration of a capital asset.

**CLASS Database**

A centralized database used to track customers, facility rentals and program registration for the Parks Division of KC DNRP.

**Client**

Any person or organization that is receiving GIS services.

**Clustering**

Linking together two or more computers to work together on performing functions.

**COGO**

*Coordinate Geometry*

COGO is a command structured problem oriented language and computer program for the solution of geometric problems.

**COM Object**

A software component that conforms to Microsoft's Component Object Model (COM).

**Component Object Model (COM)**

A component software architecture from Microsoft, which defines a structure for building program routines (objects) that can be called up and executed in a Windows environment.

**COMPSTAT**

A crime analysis and police management process developed by the New York City Police Department.

**Conflation**

The process of transferring attributes from one source spatial dataset to another target spatial dataset. Typically the geometry of the target is more complete or more accurate than the source, but it is often missing required attributes that exist in the source.

**Coverage**

A specific data format used for GIS layers native to Arc/INFO version 7.x and earlier.

**CRIS**

*County Road Inventory System*

**Cron Job**

A cron job is an automated computer process that operates at predefined time intervals.

**CRPP**

*Cultural Resources Protection Project*

A countywide integrated system for documenting, assessing and treating cultural resources. Designed to provide a more efficient compliance with federal, state and local cultural resource law, and expedite transportation projects.

**CSI**

*Conveyance System Improvements*

**CSO**

*Combined Sewer Overflow*

**Currency**

The degree to which data represent the real world as it exists at the most recent moment in time.

**Currentness**

See listing for Currency.

**Customer**

Any person or organization that is receiving GIS services.

**CX**

*Current Expense*

The county's Current Expense fund; provides budget for various programs and departments that do not have their own revenue streams.

**D**

**Data Development**

Creating a data set from scratch.

**Data Maintenance**

The process of tending to a data layer as it ages: updating attributes that change; correcting errors that are identified;

assuring data integrity; migrating to new data formats as necessary; etc.

**Data Modeling**

A conceptual representation of the data structures that are required by a database implementation. Data structures include the data objects, the associations between data objects, and the rules which govern operations on the objects.

**Data Owner**

See listing for Data Steward.

**Data QC**

Data Quality Control

A process for maintenance of standards of quality for data layers.

**Data Set**

One or more tables or spatial layers together with their metadata.

**Data Stakeholder**

A client or other party who relies on GIS data for the business functions of their organization.

**Data Steward**

The person responsible for the maintenance of a data set who controls content, currency, and access to that data set.

**Data Stewardship**

Maintenance of a data set's content, currency and access permissions.

**Data Warehouse**

A computer storage system used to make data available to a wide range of users. Often used to refer to the KCGIS Spatial Data Warehouse. See listing for KCGIS Spatial Data Warehouse.

**Database Administrator**

The person who provides access to data, and moderates content, structure and location of data.

**DBA**

*Database Administrator*

See listing for Database Administrator.

**DCHS**

*Department of Community and Human Services*

King County Department.

**DDES**

*Department of Development and Environmental Services*

King County Department.

**DEM**

*Digital Elevation Model*

Digital cartographic/geographic data in raster form, in which the terrain elevations for ground positions are sampled at regularly spaced horizontal intervals.

**Derivative**

A data set created as a subset or modification of an existing data set.

**DES**

*Department of Executive Services*

King County Department.

**Digitize**

The process of capturing data, as recorded from direct observation or from non-computerized data products, for use with a computer system.

**DMS**

*Data Management System*

See listings for SafetyDMS and SecurityDMS.

**DMZ**

*De-Militarized Zone*

A network added between a protected network and an external network to provide an additional layer of security.

**DNRP**

*Department of Natural Resources and Parks*

King County Department.

**DNRP GIS Unit**

A functional unit of DNRP that provides GIS services to internal clients.

**DOCTOOL**

A KCGIS enterprise application used by data stewards for creating and maintaining metadata for enterprise data layers.

**DOS Batch Script**

In DOS and Windows, a batch file is a text file with a series of commands. When the batch file is run, the shell program (command.com or cmd.exe) reads the file and executes its commands in order. A batch file is equivalent to a shell script under Unix.

**DOT**

*Department of Transportation*

King County Department.

**DPH**

*Department of Public Health*

Merged Seattle & King County Department.

**Dynamic Segmentation**

The ability to compute the locations of events at run time of linear features. The segmentation points are not stored in the geometry of the coverage – they are derived when needed.

**DTS**

*Data Transfer Services*

A function of MS SQL Server, it allows the transfer of data from one database to another with an automated scripting language.

**E**

**E-3 Busway**

The street pathway restricted to Transit-only that extends North-South from the Transit Tunnel's International District Station to Spokane Street between 4th Avenue South and 6th Avenue South.

**EH**

*Environmental Health*

A division of the Seattle & King County Public Health Department.

**EMS**

*Emergency Medical Services*

A division of the Seattle & King County Public Health Department.

**End User**

See listing for GIS User.

**Eng**

*Engineer*

King county employee Classification.

**Enterprise Data**

Data shared with other agencies, and posted in the KCGIS Spatial Data Warehouse.

**Enterprise Library**

See listing for KCGIS Spatial Data Warehouse.

**EOC**

*Emergency Operations Center*

A facility used to coordinate public services and information during an emergency situation.

**EPE**

*Epidemiology, Planning and Evaluation*

A division of the Seattle & King County Public Health Department.

**ESA**

*Endangered Species Act*

A federal statute originally passed in 1973 to provide for the designation and protection of invertebrates, wildlife, fish, and plant species that are in danger of becoming extinct, and conserve the ecosystems on which such species depend.

**ESN**

*Emergency Service Zone Numbers*

**ESRI**

*Environmental Systems Research Institute*

A vendor of GIS tools and applications used widely by King County GIS staff.

**ESRI CASE extension**

*Computer Aided System Engineering*

Computer Aided System Engineering tools, used to assist in application development with ESRI products.

**F**

**FEMA**

*Federal Emergency Management Agency*

US government agency devoted to response to catastrophic emergencies.

**FGDC**

*The Federal Geographic Data Committee*

An interagency committee, organized in 1990 that promotes the coordinated use, sharing, and dissemination of geospatial data on a national basis.

**FIRS**

*Facility Information Retrieval System*

A computer system used by King County DNRP Wastewater Treatment Division.

**Front End**

The portion of a computing environment that the End User interacts with directly.

**FTE**

*Full-Time Equivalent*

Representing a single full-time employee.

**G**

**GASB**

*Governmental Accounting Standards Board*

Organization whose mission is to establish and improve standards of state and local governmental accounting and financial reporting.

**Geocoding**

The process of processing addresses in a GIS to provide a corresponding geographic data point.

**Geodatabase**

A specific data format used for GIS layers native to ArcINFO version 8.x and later.

**GIS**

*Geographic Information System*

A collection of computer hardware & software tools used to enter, edit, store, manipulate, and display geographically referenced data.

**GIS Center**

See listing for KCGIS Center.

**GIS Oversight Committee**

The KCGIS Oversight Committee is responsible for guiding the direction of the KCGIS program. See Oversight Committee section in this document for a detailed discussion.

**GIS Power User**

An individual who uses GIS at an intensive level but whose main function in the County is not the creation, maintenance, and analysis of GIS data.

**GIS Professional**

An individual whose main function in the County is the creation, maintenance, and analysis of GIS Data.

**GIS Technical Committee**

The KCGIS Technical Committee is responsible for developing standards, coordinating work programs, and addressing programmatic issues for the KCGIS program. See Technical Committee section in this document for a detailed discussion.

**GIS User**

An individual who uses GIS to any degree but whose main function in the County is not the creation, maintenance, and analysis of GIS data.

**GLO**

*Government Land Office*

**GPS**

*Global Positioning System*

A system of satellites, computers, and receivers that is able to determine the latitude and longitude of a receiver on Earth by calculating the time difference for signals from different satellites to reach the receiver.

**GUI**

*Graphical User Interface*

An interface for issuing commands to a computer utilizing a pointing device, such as a mouse, that manipulates and activates graphical images on a monitor.

**GWMA**

*Groundwater Management Areas*

Administrative Areas of King County designated by WLRD for the purpose of managing ground water.

**H**

**Hillshade**

An image consisting of shadows drawn on a map to depict topographic relief by simulating the effect of the sun's rays over the land.

**HPP**

*Historic Preservation Program*

## **HRI**

### *History Resource Inventory*

An ongoing survey of historic resources resulting in an inventory of over 1300 properties.

## **I**

### **I/I**

#### *Inflow and Infiltration*

### **Integrity**

The measure of data that indicates its usable condition.

### **Internal Service Fund**

A King County agency that provides services to other King County agencies. The funding for an internal service agency is provided by those other King County agencies.

### **Intranet**

A linked network among King County agencies, that is not available to the larger Internet.

### **ISA**

#### *Information Systems Analyst*

A King County Job Classification.

### **ISP**

#### *Information Systems Professional*

A King County employee Classification.

### **IT**

#### *Information Technology*

The development, installation, and implementation of computer systems and applications.

## **J**

### **Java Script**

A user interface scripting language developed by Netscape for Web browsers. While the syntax of the Java Script programming language resembles that of Java, the two languages are actually unrelated. Java Script source code is embedded in HTML documents, and is interpreted by a Web browser.

## **K**

### **KCEGIS**

#### *King County Elections GIS*

A functional unit of Records & Elections Division of DES that provides GIS services to accommodate the election process.

## **KCGIS**

### *King County GIS*

See the Organization section of this document for a detailed explanation of the King County GIS program.

### **KCGIS Center**

King County Department of Natural Resources and Parks group that works with the KC department GIS programs to coordinate the KCGIS program, to deliver the GIS services that King County department customers require to support their business needs, and to develop the systems necessary to build the GIS environment needed to attain the County Executive's vision.

### **KCGIS Oversight Committee**

See listing for GIS Oversight Committee.

### **KCGIS Spatial Data Warehouse**

A central repository of GIS data that is maintained by various agencies within King County, as well as other entities, for the purpose of common access.

### **KCGIS Technical Committee**

See listing for GIS Technical Committee.

### **KCIA**

#### *King County International Airport*

A functional unit of KC DOT. Also known as Boeing Field.

### **KCSO**

#### *King County Sheriff's Office*

King County Department.

### **KCSORPIS**

#### *King County Sheriff Office's Research, Planning and Information Services Unit.*

## **L**

### **LAN**

#### *Local Area Network*

A system that links together electronic office equipment, such as computers and word processors, and forms a network within an office or building.

### **Layer**

A collection of geographic data objects that represent one particular characteristic for a specific spatial extent.

### **LIDAR**

#### *Light Intensity Detection And Ranging*

A method using lasers to measure distances to reflective surfaces. Used with GIS to generate elevation data.

### **LIMS**

#### *Laboratory Information Management System*

A large database and access tools for the King County Department of Natural Resources and Parks.

**Link**

A single feature in a GIS linear data layer. (also arc or line).

**M**

**MapObject**

Of or having to do with MapObjects.

**MapObjects**

Software from ESRI that provide a collection of embeddable mapping and GIS components. Developers can use MapObjects to create applications that include dynamic live maps and GIS capabilities.

**Matrix Management structure**

A management structure in which two or more supervisors share the responsibilities of management of the same people or groups.

**Matrixed**

See listing for Matrix Management.

**Metadata**

Definitional data that provide information about or documentation of other data managed within an application or environment.

**MLS**

*Multiple Listing Service*

A means by which real estate agents are informed of the properties offered for sale by other agents.

**MMS**

*Maintenance Management Systems*

A computer systems used to assist in the planning, scheduling, and tracking of maintenance work.

**Mount Point**

An established starting point (path) for directory browsing.

**MSAG Coordinator**

*Master Street Address Guide Coordinator*

**MS SQL Server**

Microsoft Relational Database Management System.

**Multispectral Imagery**

Images obtained simultaneously in a number of discrete bands (specific section) of the electromagnetic spectrum.

**Mylars**

Thin strong polyester film used primarily for ink-drawn maps and graphics.

**N**

**NAS**

*Network Attached Storage*

Hard disk storage that is set up with its own network address rather than being attached to the file server.

**NIES**

A former Western Washington mapping group, now the US office of Triathlon that provides photogrammetry services and digital orthophotography products to many Puget Sound organizations.

**NPDES**

*National Pollutant Discharge Elimination System*

Program under the U.S. Environmental Protection Agency that controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

**O**

**O&M Plan**

*Operations and Maintenance Plan*

Describes how the KCGIS program will be administered and operated.

**OCR**

*Office of Cultural Resources*

Functional unit of King County government.

**ODBC**

*Open Database Connectivity*

A standard method of sharing data between databases and other programs. ODBC drivers use the standard Structured Query Language (SQL) to gain access to data stored in a RDBMS.

**OEM**

*Office of Emergency Management*

Functional Unit of DES.

**OMB**

*Office of Management and Budget*

King County's budget office.

**Oracle**

A RDBMS software application.

**Originator**

See listing for Author.

**ORPP**

*Office of Regional Policy and Planning*

King County organization disbanded at the end of 2002, with many functions including GIS distributed into the Budget office.

**Orthoimagery**

A remotely-sensed digital picture, stored in a raster data format.

**OSPPM**

*Office of Strategic Planning and Performance Management*

Created in 2008 by the King County performance and accountability act, this office combines management analysis and planning; economic development and business relations, and performance management into three integrated functions.

**Oversight Committee**

See listing for GIS Oversight Committee.

**P**

**ParaTransit**

A passenger transportation service primarily intended for mobility-impaired, mentally-impaired, and senior citizens (elderly persons). Most vehicles used in paratransit are especially equipped with wheelchair lifts or ramps to facilitate access.

**PDF**

*Portable Document Format*

Computer document format that is well suited for distributing documents with complex formatting, used extensively by KCGIS for map distribution.

**PIN**

*Parcel Identification Number*

Unique ten digit numeric identifier for real property within King County.

**PLSS**

*Public Land Survey System*

A system established in 1785 by the Federal Government, providing for surveying and describing land by reference to principal meridians and base lines. Also called the rectangular or government survey.

**POCA**

*Public Land Survey, Ownership, County, and Administration boundaries*

An office of the Washington State Department of Natural Resources.

**Poster**

The person responsible for the publication of a data set to the data warehouse.

**Production data**

Data which are as current and accurate as possible and suitable for, use on an enterprise-wide level.

**Production Environment**

A computing environment available to multiple users, tested and stable for daily use.

**Project Data**

Data sets created or developed for specific projects which may not be suitable for broader purposes.

**PSAFI**

*Park Site and Facilities Information*

**PSAP**

*Public Safety Answering Point*

Location where E911 calls are received.

**PSRC**

*Puget Sound Regional Council*

An association of cities, towns, counties, ports, and state agencies that serves as a forum for developing policies and making decisions about regional growth and transportation issues in the four-county central Puget Sound region.

**P-Suffix**

A property-specific zoning or land-use condition that is applied to a parcel or a group of parcels.

**Public**

Accesses data in the warehouse without authentication and typically has extremely limited privileges.

**Public Library**

Data housed on a central server that is accessible to all of King County government, the contents of which are accessible according to privileges assigned by data stewards.

**Public Server**

A computer system that is accessible to all of King County government, the access to which is assigned by the DBA.

**Publisher**

See listing for Poster.

**PUD**

*Public Utility District*

An agency that provides electrical power, water, or other utility services to residents and businesses in defined districts of Washington State.

**Python**

Scripting language used to automate tasks in ArcGIS.

**Q**

**Qualified Technician**

An individual who has been adequately trained in the installation/maintenance of the hardware, software, database, or applications.

## R

### **RAID**

*Redundant Array of Independent Disks*

A strategy for organizing physical disks for a server.

### **Raster**

A type of computer graphics that is specified by a grid of columns and rows of values that are arrayed to form an image.

### **RCAMM**

*Road's Comprehensive Asset and Maintenance Management*

The RCAMM project will update and standardize the business processes and technology used to support the essential functions of roadway operations. These functions include management of the road network and its components from planning and budgeting, initial installation, through inspection and maintenance to removal from the system.

### **RCW**

*Revised Code of Washington*

The compilation of all permanent laws now in force in the State of Washington.

### **RDBMS**

*Relational Database Management System*

A program that allows users to create, update and administer a relational database.

### **REALS**

*Records, Elections and Licensing Services*

A division of DES.

### **REPMS**

*Real Estate Portfolio Management System*

### **RID**

*Road Improvement District*

A method allowed under Washington State Law to pay for the cost of road improvements that provide a special benefit to adjacent property. All the property owners pay for the project, usually over 10 to 20 years.

### **RP&IS**

*Research, Planning & Information Services*

A functional unit of KCSO.

### **RSD**

*Road Services Division*

A division of KC DOT.

## S

### **SafetyDMS**

*Safety Data Management System*

An application for recording and tracking bus accidents and transit operator safety records.

### **SAN**

*Storage Area Network*

A high-speed communications network optimized for storage.

### **SAO**

*Sensitive Areas Ordinance*

King County ordinance governing the allowed development activities within a significant impact threshold of environmentally sensitive area.

### **SCSI**

*Small Computer System Interface*

A standard for computer system communication. Generally used by the KCGIS program for server computers to communicate with high performance, high reliability, hard disk drives.

### **SDC**

*Spatial Data Catalog*

The metadata resource for the KCGIS Spatial Data Warehouse.

### **SDE**

*Spatial Database Engine*

See listing for ArcSDE.

### **SDW**

*Spatial Data Warehouse*

See listing for KCGIS Spatial Data Warehouse.

### **SecurityDMS**

*Security Data Management System*

An application for recording and tracking incidents that occur on or around transit coaches.

### **SF1 (SF2, SF3...)**

*Summary File*

Summary files available from the US Census Bureau.

### **Shapefile**

A specific data format used for GIS layers native to ArcView version 4.x and earlier.

### **SIS**

*Stop Information System*

An application that will allow the placing, sequencing, and attribution of bus stops.

**SMDM**

*Science, Monitoring and Data Management*

A section of WLRD.

**Spatial Data Warehouse**

See listing for KCGIS Spatial Data Warehouse.

**SQL**

*Structured Query Language*

An industry-standard computer language used for creating, updating and, querying RDBMS.

**SQL Server**

See listing for MS SQL Server.

**SSIS**

*SQL Server Integration Services*

A component of Microsoft SQL Server starting with version 2005, a platform for building and automating data integration processes, including extraction, transformation, and loading of data.

**Steward**

See listing for Data Steward.

**Stewardship**

See listing for Data Stewardship.

**SWD**

*Solid Waste Division*

A division of DNRP.

**SWES**

*Surface Water Engineering Services Unit*

A part of WLR Capital Projects and Open Space Acquisitions Section.

**T**

**Technical Committee**

See listing for GIS Technical Committee.

**Technology Management Board**

Part of the King County Technology Governance Structure that oversees technology projects.

**Test Environment**

A computing environment available for developing and testing of new/revised applications and software.

**Testing data**

Data being developed that are not ready for enterprise-wide use but will be in the future.

**TIFF**

*Tagged Image File Format*

A popular and flexible raster computer graphic file format.

**TLT**

*Term-limited Temporary*

A temporary King County employment position with a specified end date.

**TNET**

*Transportation Network*

A consortium of regional cities, county agencies as well as public/private partnerships participating in maintaining a seamless database of transportation related spatial and attribute datasets.

**TOE**

*Transit Object Editor*

An application for placing and editing Timepoints and TPIs in the Transit GIS network.

**Topology**

The spatial relationship between geographic features. The term is often used to refer to explicit rules of relationships that are allowed, and the resulting record of those relationships.

**Triathlon**

Formerly NIES, a Western Washington mapping group, provides photogrammetry services and digital orthophotography products to many Puget Sound organizations.

**Two-cluster system**

See listing for Clustering.

**U**

**UNIX**

A multi-user general-purpose operating system. Generally used by the KCGIS program for GIS software and RDBMS servers.

**URL**

*Uniform Resource Locator*

An address that identifies a document or resource on the World Wide Web.

**V**

**VB**

*Visual Basic*

Microsoft programming language, and Integrated Development Environment, supporting graphic user interfaces and used extensively with ESRI GIS software. There are many versions of Visual Basic including VBA (Visual Basic for Applications) and VB.NET. See also listing for .NET.

**VBA**

*Visual Basic for Applications*

**Vector**

A type of computer graphics that is specified by mathematical formula, and consisting of lines and shapes.

**VoIP**

*Voice over Internet Protocol*

The predominant character set encoding of present-day computers.

**W**

**WAN**

*Wide Area Network*

A communications network that uses such devices as telephone lines, satellite dishes, or radio waves to span a larger geographic area than can be covered by a LAN.

**Warehouse**

See listing for Spatial Data Warehouse.

**Wintel**

*Windows/Intel*

A technology platform incorporating Microsoft Windows as an operating system and Intel-type chip sets.

**WLRD**

*Water and Land Resources Division*

A division of KC DNRP.

**WRIA**

*Water Resource Inventory Areas*

Administrative Areas of Washington State designated by Washington State Department of Ecology.

**WSDNR**

*Washington State Department of Natural Resources*

Washington State government agency.

**WTD**

*Wastewater Treatment Division*

Division of DNRP.

**X**

**XML**

*Extensible Markup Language*

A text markup language for interchange of structured data between various software applications.