2007 GIS
Operations and Maintenance
Plan

Document History

Date	Who	Description
12/12/06	GIS Technical Committee	Document completed and discussed at the GIS Technical Committee meeting.
1/9/07	GIS Technical Committee	GIS Technical Committee consensus vote for submitting document to the GIS Oversight Committee.
1/29/07	Paul McCombs, Chair	Submittal of document to the GIS Oversight Committee.

Table of Contents

1 Introduction

This document describes the state of the King County Geographic Information System (KCGIS) as of December 2006. It represents the culmination of a collaborative effort by personnel throughout the County to delineate the 2007 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 2007 marks the beginning of the sixth 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 Production Operations and Maintenance Plan, or O&M Plan). This document is the 2007 edition of that work plan. It builds on the experience of the 2002 -2006 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 2007. The result is a comprehensive picture that details the King County GIS work program. As in previous years, the 2007 O&M Plan provides lists of data and applications, descriptions of current work tasks, details of agency GIS programs, and information on GIS budgets. New in this year's plan is the Digital Aerial Imagery Plan. The Digital Aerial Imagery Plan is the successful result of multiple agency cooperation to provide funding and technical requirements to satisfy the longstanding un-met need for aerial imagery. Details on the Digital Aerial Imagery Plan can be read in section 3.1 of this document.

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 initiative added and some initiatives carrying over from year to year until they are completed. The successful completion of the long running Software Migration priority initiative opens up a lot of GIS staff time to devote to the many 2007 priority initiatives. 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 "2007 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 2007 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.

Cooperation and consolidation are important themes for KCGIS in 2007. Several of the priority initiatives reflect these themes: creation of four authoritative data layers; collaboration with King County cities on cadastral data; first annual implementation of the Digital Aerial Imagery Plan; and coordination of GIS application development. Building on the successful cooperation exhibited in 2006 by the completion of the Software Migration, and the establishment of ongoing funding for digital aerial imagery, the KCGIS has set challenging goals for 2007. Cooperation is difficult, consensus needs to be reached, and mutual benefits need to be realized in order to achieve success. Adequate funding is always at risk, but the value of GIS in meeting the business needs of the county is large and clear to see. KCGIS is prepared for both the challenges and opportunities that 2007 presents.

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 managed by DNRP. The enterprise operations provided by the KCGIS Center are funded by 35 county agencies based on a sophisticated cost allocation model. Details about the funding model can be found at www.metrokc.gov/gis/kb/Content/KCGISCenter_Finances.htm 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 chart on the following page provides an illustration of the KCGIS governance structure and relationships of the participants.

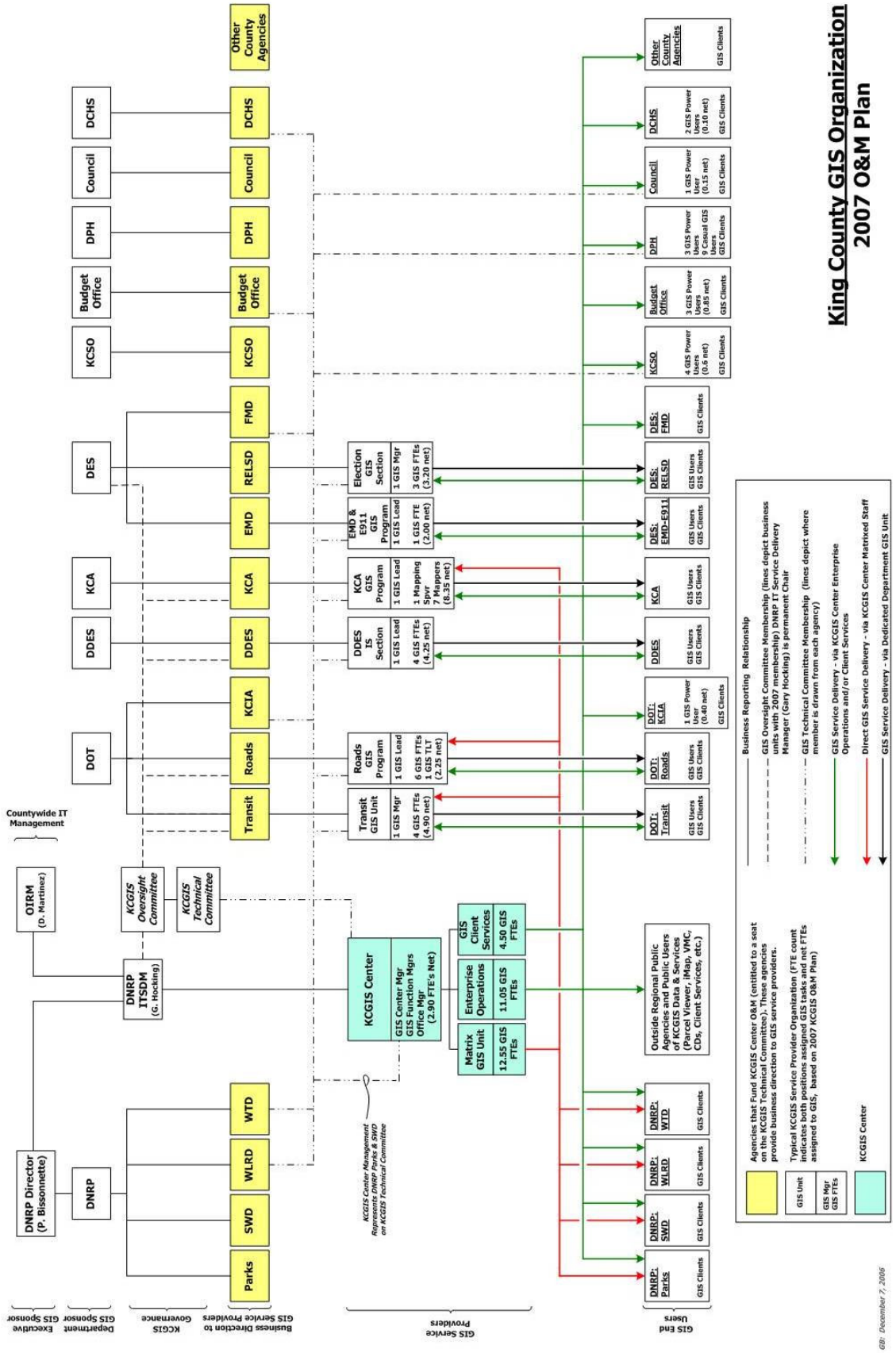
2.1 DNRP Director

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 has delegated 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 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.
- Provide an annual report on KCGIS work program status to the Technology Management Board.
- Review and approve the annual budget for the KCGIS Center.
- Develop and recommend the cost allocation and funding model for the KCGIS Center.
- Make recommendations to the Technology Management Board as needed.


King County GIS Organization
2007 O&M Plan
Executive GIS Sponsor
Department GIS Sponsor
KCGIS Governance
Business Direction to GIS Service Providers
GIS Service Providers
GIS End Users
Countywide IT Management
DNRP Director (P. Bissonnette)
OIRM (D. Martinez)
DNRP ITSDM (G. Hocking)
KCGIS Oversight Committee
KCGIS Technical Committee
KCGIS Center Management Represents DNRP Parks & SWD on KCGIS Technical Committee
KCGIS Center
GIS Center Mgr
GIS Function Mgrs
Office Mgr
(2.90 FTE's Net)
Matrix GIS Unit
12.55 GIS FTEs
Enterprise Operations
11.05 GIS FTEs
GIS Client Services
4.50 GIS FTEs
Outside Regional Public Agencies and Public Users of KCGIS Data & Services (Parcel Viewer, iMap, VMC, CDs, Client Services, etc.)
DNRP
Parks
SWD
WLRD
WTD
DOT
Transit
Roads
KCIA
DDES
KCA
DES
EMD
RELSD
FMD
KCSO
Budget Office
DPH
Council
DCHS
Other County Agencies
Transit GIS Unit
1 GIS Mgr
4 GIS FTEs (4.90 net)
Roads GIS Program
1 GIS Lead
6 GIS FTEs
1 GIS TLT
(2.25 net)
DDES IS Section
1 GIS Lead
4 GIS FTEs (4.25 net)
KCA GIS Program
1 GIS Lead
1 Mapping Spvr
7 Mappers
(8.35 net)
EMD & E911 GIS Program
1 GIS Lead
1 GIS FTE (2.00 net)
Election GIS Section
1 GIS Mgr
3 GIS FTEs (3.20 net)
DOT: Transit
DOT: Roads
DOT: KCIA
1 GIS Power User (0.40 net)
DDES
KCA
DES: EMD-E911
DES: RELSD
DES: FMD
KCSO
4 GIS Power Users (0.6 net)
Budget Office
3 GIS Power Users (0.85 net)
DPH
3 GIS Power Users
9 Casual GIS Users
Council
1 GIS Power User (0.15 net)
DCHS
2 GIS Power Users (0.10 net)
Other County Agencies
GIS Users
GIS Clients
DNRP: Parks
DNRP: SWD
DNRP: WLRD
DNRP: WTD
Business Reporting Relationship
GIS Oversight Committee Membership (lines depict business units with 2007 membership) DNRP IT Service Delivery Manager (Gary Hocking) is permanent Chair
GIS Technical Committee Membership (lines depict where member is drawn from each agency)
GIS Service Delivery - via KCGIS Center Enterprise Operations and/or Client Services
Direct GIS Service Delivery - via KCGIS Center Matrixed Staff
GIS Service Delivery - via Dedicated Department GIS Unit
Agencies that Fund KCGIS Center O&M (entitled to a seat on the KCGIS Technical Committee). These agencies provide business direction to GIS service providers.
Typical KCGIS Service Provider Organization (FTE count indicates both positions assigned GIS tasks and net FTEs assigned to GIS, based on 2007 KCGIS O&M Plan)
GIS Unit
GIS Mgr FTEs
KCGIS Center
GBI: December 7, 2006

- 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. For 2007 the KCGIS Oversight Committee has designated the Department of Executive Services to fill 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 2006 and 2007 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 discrete GIS work program is granted one seat on the committee. This chart lists the 17 agencies eligible for representation on the committee in 2007. One additional seat on the committee is allocated to the KCGIS Center.

Assessments	DES-E911 Program	DOT-Airport
Budget Office	DDES	DOT-Road Services
Council	DNRP-Parks and Recreation	DOT-Transit
DCHS	DNRP-SWD	Public Health
DES-Facilities Management	DNRP-WTD	Sheriff's Office
DES-REALS	DNRP-WLRD	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 2006 and 2007 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, and ad hoc committees. 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 are 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 via a matrixed management structure delivers dedicated staffing to county agencies on an annual contractual basis. 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 that KCGIS data development and data maintenance activities are rationalized 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. The first table outlines the approved 2007 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, DOT, and DOA.

KCGIS Center 2007 Budget and Revenue Allocations					
	GIS Center (Cost Center 3181M)				
Agency Name (LowOrg)[1]	O&M Funding Model	Budgeted Client Services	Total GIS Center	Matrix GIS Staff Unit (Cost Center 3182M)	Total Agency GIS Center Budget (55026)[2]
Department of Assessments (1599)	150,253	62,164	212,417	123,727	336,144
DAJD: Adult (7217)	25,210	0	25,210		25,210
DAJD: Juvenile (7546)	4,450	0	4,450		4,450
DCHS (6531)	66,054	21,328	87,382		87,382
DDES (3419)	222,437	6,880	229,317		229,317
DES: Administration (1501)	22,904	0	22,904		22,904
DES: EMD: RECC (2991)	2,839	14,362	17,201		17,201
DES: EMD: E911 (7543)	223,393	13,760	237,153		237,153
DES: Finance (6801)	2,935	0	2,935		2,935
DES: HR (1485)	402	0	402		402
DES: HR: Safety & Claims (7043)	173	0	173		173
DES: HR: Benefits: HRIS (3050M)	44	0	44		44
DES: ITS (2542M)	2,374	6,880	9,254		9,254

KCGIS Center 2007 Budget and Revenue Allocations					
	GIS Center (Cost Center 3181M)				
Agency Name (LowOrg)[1]	O&M Funding Model	Budgeted Client Services	Total GIS Center	Matrix GIS Staff Unit (Cost Center 3182M)	Total Agency GIS Center Budget (55026)[2]
DES: I-Net (4901)	0	3,440	3,440		3,440
DES: Records O & M (1440)	2,079	0	2,079		2,079
DES: Records & Elections (7250)	52,082	7,138	59,220		59,220
DES: FMD (1519)	60,168	21,328	81,496		81,496
DES: FMD (Project 377133)	0	33,288	33,288		33,288
DNRP: Director's Office (3110)	22,942	0	22,942		22,942
DNRP: WTD (7200)	199,345	40,506	239,851	421,151	661,002
DNRP: WLRD (3814)	234,775	0	234,775	509,356	744,131
DNRP: Parks Division (8703)	50,734	27,176	77,910	120,566	198,475
DNRP: Parks Div Capital (316008)	0	0	0	30,141	30,141
DNRP: SWD (1454)	68,977	0	68,977	122,755	191,733
DPH (Dept: 0800; LowOrg: 8011)	73,388	12,556	85,944		85,944
DPH: EMS (1190)	22,934	4,386	27,320		27,320
DOT: Director's Office (5011M)	22,665		22,665		22,665
DOT: Roads (1665)	193,940	0	193,940	131,927	325,867
DOT: Transit (5130M)	198,004	0	198,004	133,946	331,950
DOT: Airport (1765)	40,748	22,016	62,764		62,764
DOT: Fleet (TBD)	40		40		40
Sheriff's Office (1933)	54,430	0	54,430		54,430
County Council (1041)	47,828	17,716	65,544		65,544
Budget Office (1063)	46,673	28,380	75,053		75,053
Prosecuting Attorney's Office (5028)	2,591	21,328	23,919		23,919
Boundary Review Board (1596)	0	10,664	10,664		10,664
Judicial Administration (1565)	1,793	0	1,793		1,793
Superior Court (4041)	1,762	0	1,762		1,762
District Court (1593)	86	0	86		86
Contingent Billing to KC Agencies	0	78,148	78,148		78,148
Billings to Agencies Outside KC	0	134,303	134,303		134,303
Total:	2,121,452	587,747	2,709,199	1,593,569	4,302,768

Table Notes:

1. The LowOrgs, Cost Centers, or projects indicated are those that the Budget Office reported for KCGIS Center funding for 2007 budget expenses.
2. Agency GIS expense budgets are generally found in account 55026.

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.

2007 King County GIS Services Funding Mechanism Summary:					
GIS Service Recipients:	GIS Service Providers:				
	KCGIS Center Costs			Agency GIS Unit[4]	Outside Vendors[5]
	O&M[1]	Client Service[2]	Matrix Staff[3]		
Department of Assessments	Fixed periodic I/F Transfer	Service specific I/F transfer	Fixed periodic I/F Transfer	Budgeted & paid internally	Billed to fund

2007 King County GIS Services Funding Mechanism Summary:					
GIS Service Recipients:	**GIS Service Providers:**				
	KCGIS Center Costs			**Agency GIS Unit[4]**	**Outside Vendors[5]**
	O&M[1]	**Client Service[2]**	**Matrix Staff[3]**		
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: Administration	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: Records & 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				Billed to fund
DNRP: WTD	Fixed periodic I/F Transfer	Service specific I/F transfer	Fixed 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				
DOT: Roads	Fixed periodic I/F Transfer		Fixed periodic I/F Transfer	Budgeted & paid internally	Billed to fund
DOT: Transit	Fixed periodic I/F Transfer		Fixed periodic I/F Transfer	Budgeted & paid internally	Billed to fund

2007 King County GIS Services Funding Mechanism Summary:					
GIS Service Recipients:	**GIS Service Providers:**				
	KCGIS Center Costs			**Agency GIS Unit[4]**	**Outside Vendors[5]**
	O&M[1]	**Client Service[2]**	**Matrix Staff[3]**		
DOT: Airport	Fixed periodic I/F Transfer	Service specific I/F transfer			Billed to fund
DOT: Fleet	Fixed periodic I/F Transfer				
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
Budget Office	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
District 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 seven divisions in DNRP, DOT, and KCA that receive services. Matrix GIS staff 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, specialized GIS-based applications (e.g. E-911, Sheriff), GIS data acquisition or development, GIS consultant or training services, or custom GIS application development.

3 KCGIS Priority Work Initiatives

In concert 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. The bulk of the work is carried out by KCGIS Center staff allocated to support the priority initiatives. For 2007 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 the agency GIS units. Therefore, Technical Committee members acknowledge a commitment to provide access to key staff within their agencies to help ensure objectives of the priority work initiatives are met.

In order to provide guidance to the KCGIS Center on how to allocate resources among the priority initiatives the Technical Committee conducts an advisory vote. Each member of the committee is allowed to indicate up to six initiatives that they want the KCGIS Center to focus on. Twelve committee members participated in the vote. Authoritative Property Address Data (D-4) received the most votes with twelve. First Annual Aerial Imagery Acquisition Plan (D-6) received eleven. Cadastral Accuracy Improvements (D-5) received eight. Authoritative Street Centerlines Data (D-1) and Authoritative City Boundary Data (D-2) each received seven. Collaborative Cadastral Data Maintenance Feasibility Study (O-1), GIS Application Development Coordination and Facilitation (A-1), ArcGIS Server Application for Address Data Maintenance and Distribution (A-2), King County Web Mapping Services Compendium (A-5), and Authoritative Points-of-Interest Data (D-3) each received four. Parcels with Onsite Septic Systems Data Development (D-7) received three. GIS Training Curriculum Development (O-2) and Census Data Analysis Tools Assessment (A-3) each received two. Finally, ArcGIS Server Application for the Mitigation Reserves Program (A-4) received no votes.

The work initiatives are managed 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.

O-1 Collaborative Cadastral Data Maintenance Feasibility Study

Background: Several cities, as well as King County, are actively engaged in maintaining parcel data layers to support many of their core services. As of now, there is little or no coordination of effort, and there is much duplication of effort to maintain this information. Maintained parcel datasets are discrete, non-standard, and overlap with the county's data or adjacent cities. This results in inefficiencies in developing, maintaining, and using these important data resources. In addition, there is no comprehensive understanding of the parcel mapping activities that are underway. Given the importance of parcel mapping for effective delivery of local government services, there should be consideration of creating a model for collaborative maintenance of a single parcel dataset for King County.

Objective: The KCGIS Center will complete a feasibility study for collaborative, cross jurisdictional maintenance of parcel data for King County by investigating the current status of cadastral mapping efforts. This will be done through a survey and interview process with the cities currently engaged in parcel mapping activity. From these interviews a set of recommendations for a path leading to collaborative maintenance will be developed. The interview process will be completed in 2007 and a report with recommendations forwarded to the KCGIS Technical Committee.

O-2 GIS Training Curriculum Development

Background: Providing specialized GIS training was identified as a key component of the GIS Software Migration Project. Work began in 2004 to develop a training curriculum to support the migration, and this effort was soon expanded to meet a broader goal of developing a comprehensive training program for all categories of KCGIS users. The result was creation of a training plan first published in 2005 and revised in 2006. This plan describes a curriculum that

includes 29 courses. To date materials have been completed for seven courses, and five more are under development. While the Software Migration Project closes at the end of 2006, the Technical Committee recognizes the need to complete the training curriculum and to continuously update the training materials. Therefore, the GIS Training Workgroup will remain active into at least 2007.

Objective: Develop an ongoing and relevant GIS education program that empowers current and potential users of GIS technology. The training curriculum will be modular, customized, and geared towards specific categories of GIS users. In 2007, the GIS Training Workgroup will complete an annual update to the Training Curriculum Plan, and forward new recommendations to the Technical Committee. The workgroup will continue development of training material with a goal to complete at least four to six more courses in 2007.

A-1 GIS Application Development Coordination and Facilitation

Background: Software application development is pursued separately within the GIS programs of several county agencies. Given this environment, application development benefits from communication where programmers share knowledge, skills, ideas, and code. At another level is collaboration among developers which involves peer review, joint development efforts, coding and technology standards, and sharing of application requirements. In 2006 the GIS AppDev Group was tasked with developing a set of communication and collaboration protocols to be followed by GIS programmers. Work on these protocols will continue in 2007. In addition, to gain further efficiencies the Technical Committee has identified the need for an application digest and repository. The digest would essentially be an electronic catalog of King County's custom GIS applications, with an associated repository for application documentation and code.

Objective: The GIS AppDev Group will complete development of a set of procedures and protocols for communication and collaboration by GIS programmers within King County. The group will also assist the KCGIS Center in designing, developing, and populating the KCGIS Application Digest and Repository.

A-2 ArcGIS Server Application for Address Data Maintenance and Distribution

Background: In 2006 King County submitted a grant proposal to receive hardware and software to support development of an ArcGIS Server based web interface. This interface would allow addressing authorities throughout the county to easily submit their address additions, deletions, and updates into a single authoritative countywide address data resource (the newly created E911ADDRESSPOINT data layer). Unfortunately the grant was not awarded, but even without the hardware and software it is still feasible to proceed with development of the web interface. Early participants in the project will include King County agencies and as many as three outside addressing authorities.

Objective: A multi-agency development team will implement an ArcGIS Server application to support maintenance and distribution of the authoritative E911ADDRESSPOINT database. The team, led by the KCGIS Center, will guide the project through the application development lifecycle. Functional requirements will be identified, the web interface will be designed, tested, and debugged, and the application will be deployed to the addressing authorities.

A-3 Census Data Analysis Tools Assessment

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. Some new data will become available before the 2010 census, and King County can begin now to plan for their release. In late 2007 the Technical Committee will start this planning process by investigating the implications of developing GIS tools to handle the new census data.

Objective: Late in 2007 a workgroup will be formed, with the county's demographer as the lead. This 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.

A-4 ArcGIS Server Application for the Mitigation Reserves Program

Background: The Mitigation Reserves Program is a policy tool available to the county to help alleviate the adverse effects of land development. Under certain conditions this program allows for the matching of a sending site (that is the development site) with a potential receiving site (an area that will benefit from habitat protection or restoration). A web-based GIS application could be developed to assist in matching the characteristics of sending sites to appropriate receiving sites. In order to match sites, the application would need to employ analysis models based on complex defined criteria. These analysis models cannot be run in ArcIMS based applications, but the new ArcGIS Server technology provides functionality that can overcome this limitation.

Objective: A multi-agency development team will complete implementation of an ArcGIS Server based application to support the Mitigation Reserves Program. This application will assist users in finding receiving sites that meet the subject property's sending characteristics, and will track and match sites from DDES that have off-site mitigation needs with ecological sites (natural lands) that need restoration work done.

A-5 King County Web Mapping Services Compendium

Background: The KCGIS Center, in coordination with King County agencies, has developed and deployed highly popular enterprise web mapping applications such as iMAP and Parcel Viewer. Agency specific web mapping services have also been deployed by the KCGIS Center and others. New technologies developed by private firms such as Google are making it easier to deploy interactive web maps, and a handful of county agencies are experimenting with these tools. Web mapping services are among the most sought after resources on the county's website and surveys indicate the public wants geographic resources like these more than other kinds of web content. However, with the proliferation of King County web mapping services the typical user may have difficulty sorting through and locating the appropriate services for their needs. To make it easier for the user, and to improve public service, a compendium page could be compiled that would be a one-stop location to learn about and link to all of the county's map services.

Objective: Develop a King County mapping services compendium page that would be available from the county's Internet home page. This compendium page will contain descriptions of the various county web mapping services and provide links to each service. A procedure will be developed to keep the compendium up to date as more mapping services are brought online. Once the compendium page is in place other ideas will be explored to see how the user's interactions with King County's many mapping applications can be improved.

D-1 Authoritative Street Centerlines Data

Background: Near the end of 2006 the migration of King County's cadastral data from coverage (RECDNET) to geodatabase (KCAM) will be complete. In the same timeframe the new TNET database will be deployed by Transit. These new datasets will replace the county's current sources of street centerline data. As they vary significantly from the sources they are replacing, reworking of work flows and end user applications will be necessary. For instance, the editing workflow for the cadastral based street centerline data layer known as ST_ADDRESS will need to be altered to accept updates from KCAM rather than RECDNET. As the changeover to the new data source occurs, the opportunity should be taken to ensure that not only is the integrity of ST_ADDRESS maintained, but that the layer is still fulfilling its intended purpose and is clearly distinguished from TNET. TNET, which is a representation of the multi-mode transportation

network, is a significant departure from its predecessor (KCSN). KCSN will be retired and a transition to TNET and its many derivative data sets will need to be made.

Objective: Clarify the content and business role of ST_ADDRESS and establish a new editing work flow and update cycle. Ensure that any KCSN based applications are migrated to make full use the new TNET data. Develop adequate descriptive metadata for ST_ADDRESS and TNET, and retire any street network depictions that are not based off of these data sources. Develop cartographic representations for both ST_ADDRESS and TNET for use at typical scales and general mapping purposes.

D-2 Authoritative City Boundary Data

Background: City boundary data are maintained by a handful of King County agencies. The content and geometry of these data layers differs, and none of them accurately depict the city boundaries as they by state law extend into adjacent bodies of water. This new layer will merge disparate city boundary maintenance regimes at DDES and Assessments into a single design, and will enable law enforcement and other public safety entities to determine jurisdiction over incidents that occur in navigable waters.

Objective: In 2007 the KCGIS Center, in coordination with agency data stewards, will complete development of a consolidated city boundary layer. This will include delineation of jurisdictional boundaries into adjacent water bodies based on an agreed methodology.

D-3 Authoritative Points-of-Interest Data

Background: Several county agencies maintain data layers depicting landmarks, facilities, and other locations that might be commonly referred to as points-of-interest. There is currently no coordination between agencies for maintaining this information, which results in inconsistencies in coding, and gaps and overlaps in content. The need for a common or shared points-of-interest layer has been examined in the last couple of years, but a clear consensus for how to proceed has not emerged. In 2007 a limited prototype will be developed that may lead to a more full implementation of a shared maintenance regime for a common points-of-interest layer.

Objective: In 2007 the KCGIS Center, in coordination with agency stakeholders, will develop a prototype points-of-interest data layer from a restricted inclusion list, to initially include key KCGIS Center layers (e.g. FIRESTN, HOSPITAL, and POIPUB) and at least one or two agency contributions. The prototype will contain a multi-tier attribute model to handle differing agency business requirements, and will also model actual location versus parcel and intersection-based location offsets. Standard operation procedures will be developed to address multiple editors, including primary domain assignments and mechanisms for quality assurance. Pending the outcome of the prototype, a more complete model may be implemented.

D-4 Authoritative Property Address Data

Background: Several county agencies maintain property address information as an important dataset supporting their core business needs. Verifying addresses and keeping up with property address changes is a time consuming and error prone task. This task is made more difficult because agencies lack an authoritative reference source for addressing data. The E-911 GPS addressing project, due to be completed in 2007, will result in the most complete and accurate accounting of addresses in King County ever complied. This new dataset can provide the building block for creating an authoritative address layer which will serve the needs of multiple county agencies. There is also an opportunity to implement a set of best practices to streamline the update of addressing data, replacing the often archaic processes that are currently used.

Objective: The Authoritative Address Workgroup will work in partnership with the E-911 Program Office and other county agencies to establish the authoritative addressing database. The workgroup will develop and implement a work flow and address verification process to ensure the database is maintained to the highest standard. Guiding principles will be developed

outlining expectations, roles, and responsibilities of the various addressing authorities as well as the county agencies using the database.

D-5 Cadastral Accuracy Improvements

Background: The positional accuracy of King County's parcel data varies. Some areas are of obviously poor quality and need improvement to align with more accurate data collected by GPS or survey methods. Several cities are displeased with the county's parcel data and have sought positional improvements on their own. In 2006 an agreement between the City of SeaTac and the Department of Assessments resulted in a pilot project to collaborate to adjust parcel boundaries in a limited area. Further collaboration with cities and more staff resources are needed to effectively tackle this problem.

Objective: The KCGIS Center and the Department of Assessments will continue to work together to identify opportunities to improve the positional accuracy of the parcel data. The pilot project with the City of SeaTac will be completed. Other cities will be contacted to determine their interest in similar efforts. The details of a proposal by the Wastewater Treatment Division to provide staff resources will be finalized and work will begin on positional improvements targeted to selected areas to better align parcel data to wastewater conveyance data.

D-6 First Annual Aerial Imagery Acquisition Plan

Background: In 2007 King County will establish a reserve fund for the purpose of acquiring aerial imagery on a regular basis. With the establishment of the reserve fund, $200,000 will be available in 2007, and $200,000 will be added to the fund in each subsequent year. The Technical Committee intends to use the fund to acquire imagery in 2007. For this is to occur a plan needs to be in place, and decisions made to proceed, by February or March. Planning also needs to begin for any acquisitions in 2008 and 2009.

Objective: The Imagery Workgroup will develop a proposal to acquire aerial imagery in 2007 and forward it to the Technical Committee. This proposal will take into account opportunities for collaboration and partnership with local, regional, state, and federal agencies. The proposal will include all the necessary documentation for the county to prepare an RFP for imagery to be acquired in the late spring or early summer of 2007. If the proposal is accepted, the Technical Committee will ask the KCGIS Oversight Committee for approval to move forward with the acquisition. Once the work on a possible 2007 acquisition has been completed the workgroup will begin planning for acquisitions in 2008 and 2009.

D-7 Parcels with Onsite Septic Systems Data Development

Background: Several agencies have identified a need for data depicting parcels with onsite septic systems. Developing this data set may be problematic as there is no clear understanding of the quality and completeness of possible source material. Initial work needs to be done to determine the feasibility of developing a parcel-based septic system inventory that would meet minimum data quality standards.

Objective: The KCGIS Center with assistance from interested agencies will conduct a scope of the available data sources. Based on this research a methodology for developing the data will be formulated and a recommendation for how to proceed forwarded to the Technical Committee.

3.1 2007 Digital Aerial Imagery Plan

2007 is the first year that dedicated funding is budgeted for countywide digital aerial imagery acquisitions. With that funding ($200,000 annually with potential for carry-over from year to year) the county can begin to make strategic acquisitions of what has become an essential commodity for the conduct of local government functions. Further, this seed can provide the foundation for establishing a regional leadership role in coordinating the imagery needs of the great number of public agencies serving King County.

In 2007 a grant from the US Geological Survey ($50,000) will add to the funds potentially available. These funds come with a commitment to provide a set of public domain imagery to USGS for inclusion in the National Map. Additionally, partner agencies may contribute funds, thus raising considerably, the annual budget. It should be noted that if it becomes necessary to expend more than $200,000 in one year additional spending-authority must be granted by the King County Council.

The annual imagery plan details the specifications for countywide imagery to be acquired in 2007 and processes needed to ensure continuity of the program for coming years. The plan consists of a summary of goals, a schedule of work, and technical specifications. Because of the time needed to develop this first plan the program for 2007 may lag somewhat behind the timeline established here.

Development of the process described has been done by the Digital Imagery Workgroup of the King County GIS Technical Committee. This workgroup will continue to oversee and execute the conduct of the annual program.

Because of the large number of public agency jurisdictions lying within the boundaries of King County, a special condition exists whereby the citizens of the county may be paying for redundant and/or inconsistent acquisitions because of uncoordinated and overlapping photo missions. The county is in a unique position to serve its citizens by providing leadership in developing a mechanism to allow agencies within the county to cooperate on obtaining acceptable imagery consistently, thereby reducing cost and increasing usability for all. Therefore, it is a primary aim of the work group, through the KCGIS Center to structure a straight-forward mechanism for any public agency to join in planned imagery acquisitions and share equitably in the cost.

Goals

Acquire reliable and timely imagery consistently, predictably, and cost-efficiently to support county operations.

Actively seek agency partners for cost sharing.

Provide a straight-forward procedural mechanism to partner with other agencies.

Provide a means of coordinating regional agencies (those having a stake within the county) to provide greatest usefulness, uniformity and economy of all acquisitions.

Schedule

The workgroup will pursue the annual imagery program on the following schedule.

- Needs Determination – (June/July 2006)
    - The workgroup will develop proposed specifications from member input and discussion. The specifications will address coverage areas, imagery type, resolution, delivery format and other technical details.
    - Canvass technical committee members for changes to the proposed specifications.
    - Canvass agency partners for changes to the proposed specifications.
- Annual Specification Development (September 2006)
- Approval by Technical and Oversight Committee (October 2006)
- Inclusion in King County GIS O&M Plan (November 2006)
- RFP development (by January 2007)
- RFP evaluation and selection (by Mid February 2007)
- Project Performance (March-July 2007)
- Product Delivery (June-December 2007)

Technical Specifications (2007)

Project Approach

Unless there is a defined need to the contrary, it is presumed that all imagery will be acquired with digital sensors and high-quality airborne GPS.

In an effort to partner with cities that seek "leaf-off" imagery the county will pursue a split flight strategy for 2007. This may not be achievable. The geographic conditions of King County make it practically impossible to obtain acceptable "leaf-off" imagery of the entire county at one time. At our latitude, large-area imagery cannot be flown effectively in winter due to the low sun angle. This means photos cannot be captured prior to the second week of March. "Leaf-out" may begin to have detrimental effect soon thereafter depending on the weather conditions. Clouds, rain, or other conditions may also preclude flying prior to "leaf-out". It is almost a certainty that leaf-out will be complete before snow retreats from the higher elevations. Hence, if we can partner with other agencies requiring leaf-off photos, we will fly the western High Resolution portion (i.e., except the special interest areas) in leaf-off condition and fly the Low Resolution areas for summer exposure (target solstice capture for optimum illumination).

The Imagery Work group will develop and advertise a Request For Proposals (RFP) for professional services. This advertising for professional services requires selection of the most qualified proponent rather than the lowest cost.

Prior to advertising the RFP, the workgroup will develop an evaluation process and criteria for ranking proposals

Project Area

The image on the following page shows the defined High and Low resolution capture areas, which are basically the west-county and Skykomish/Snoqualmie special interest areas (High) and the east-county (Low). A squared off portion of Snohomish County will be acquired if "leaf-off" imagery is obtained. If not, we will rely on the Snohomish County project to provide that coverage and avoid unnecessary redundancy.

High resolution areas will acquire imagery to support nominal 3" to 6"pixel resolution ortho-photo production, dependent upon cost and partner contribution. High resolution imagery for the "special interest areas" will overlay (not supplant) the low resolution coverage of those areas.

Low resolution areas will acquire imagery to support nominal 12"pixel resolution ortho-photo production.

Imagery Type

The county will obtain vertical photography in 2007 and pursue oblique imagery in 2008 (dependant on financial constraints). If "leaf-off" acquisitions are viable the Imagery Workgroup proposes to alternate between "leaf-on" and "leaf-off" acquisitions subject to input during the annual needs assessment.

Delivered Product

The following products will be delivered:

Oriented Stereo Imagery ("RAW Images")

Delivered oriented stereo-imagery will support a 95% circular positional accuracy of +/- 1 foot Global accuracy. All imagery will be controlled based on HPGN 83/91 Washington State Plane Coordinate System North Zone and delivered in that projection.

RAW Images will be delivered with an orderly file naming convention representative of the flight/photo-acquisition order.

RAW Images will be delivered in uncompressed TIFF format as full spectrum 12 bit images and as 8 bit RGB files compatible with BAE SOCET SET photogrammetry software.

Oriented stereo-imagery along with all supporting data files (control, IMU, GPS, etc) shall be delivered within 2 months of the completion of the flight.

Ortho-Rectified Imagery

Imagery will be rectified using the county supplied King County LiDAR data set.

Final ortho-imagery will support a 95% circular positional accuracy of +/- 1 foot (global accuracy) dependent on auto processed LiDAR rectification.

Orthoimagery will be submitted to King County for quality evaluation within four months of photo acquisition. Final delivery will be made by Dec 31, 2007.

KCGIS Center will perform MrSID compression and mosaic to higher tiling levels.

Actual pixel size shall be of a dimension that will mosaic exactly into 7500', 3750', or 1875' tiles.

Exact pixel size values shall not exceed two decimal places (e.g. 3.52 exactly not 3.519 or any repeating values), thus "one third of a foot" pixels are not acceptable.

Imagery will be delivered in standard King County 7500 foot tiles named using the county naming convention.

All imagery will be delivered on two Network Attached Storage type devices one for raw images, and one for ortho-rectified images.

Agency Coordination

The Imagery Workgroup, under the auspices of the KCGIS Center, will develop a model inter-local agreement to enable partner agencies to acquire imagery that meets their needs from the county acquisitions and to contribute funds equitably.

4 Work Plan

Chapter 4 of the 2007 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 the 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 also includes description of the agency's mission, primary business responsibilities, and GIS business strategy. 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 rest of each agency section is focused on planned activity for the year including projects, data and application development or enhancement, and changes to hardware, software, database, licensing, 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. The DNRP IT Service Delivery Manager monitors the KCGIS Center on behalf of the DNRP Director and serves as permanent chair of the KCGIS Oversight Committee.

- The KCGIS Center has a total of 31 staff positions organized into three business units; Enterprise Operations, Client Services, and Matrix Staff Services. This staffing level is unchanged from 2006; however the FTE allocations budgeted to two of the business units change in 2007. For details of these staffing changes see Section 4.1.4 of this document.

- ***Enterprise Operations –*** The Enterprise Operations Unit provides a range of management, administrative, and technical services to support the KCGIS program. These services in 2007 are supported by 12.60 FTEs. 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 control, marketing, administrative and clerical support, enterprise coordination, contract management, and external data acquisition. Financial control includes management of the KCGIS internal service fund, annual budget development in coordination with the KCGIS governance committees, billing for annual cost allocation shares, financial expenditure controls, and financial reporting. The marketing efforts promote the use of KCGIS products and services and further the County Executive's vision of the KCGIS Center as a regional service provider to local municipalities, utilities, and other public and private agencies. The technical functions of the Enterprise Operations Unit are provided by GIS analysts and project managers and cover a broad spectrum including enterprise data coordination, spatial data warehousing, RDBMS administration, website management, application development, system administration, and infrastructure management. Other technical services of this group include administration and publishing of GIS metadata, verification of data posted to the KCGIS Spatial Data Warehouse, and data integration and quality control for the cadastral base framework maintenance process. 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 infrastructure within the larger framework of the county's information systems.

- ***Client Services –*** The Client Services Unit offers a full range of on-demand GIS consulting and project services on a cost-reimbursable basis to King County business units and to external customers such as local agencies, cities, and citizens. The hourly labor rates for 2007 are based on a tiered pricing structure. GIS analyst services are $85, GIS programming, advanced cartography, and production coordination services are $90, and GIS consulting and project management services are $95. The Client Services Manager supervises the unit and initiates and coordinates service delivery. In 2007 the Client Services Unit has a budgeted allocation of 5.00

FTEs. This relatively small FTE count is offset by the ability of the Client Services Manager to draw upon the highly-specialized skills of staff throughout the KCGIS Center. This expands the level of talent and increases flexibility for responding to projects far beyond the limits of what would typically be available from a staff of five. In 2006, twenty 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 a dedicated level of GIS staff support to specific King County work programs through an annual contractual agreement. In 2007 13.40 FTEs will be allocated to seven different work programs in three departments. Program managers are assigned to oversee each work program and these managers coordinate as peers to draw support for their programs from a pool of KCGIS Center staff resources. Matrix Staff Services Unit personnel are generally assigned to a single work group and thus 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 four 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, Transit, and Assessments. Work programs in Parks and Recreation, Solid Waste, and Road Services are overseen by program managers from the KCGIS Center. The KCGIS Center Manager is the administrative manager for 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 administrative manager 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, Assessments, 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.

4.1.2 Planned Project Activity and New Projects

Name	**GIS Software Migration – Project Management**
Description	The GIS Software Migration closed at the end of 2006. A post mortem document will be submitted to the KCGIS Technical Committee during the first quarter of 2007, and will include the fates of goals, and the identification of ongoing work. In general, many of the business practices and workgroups that were created to facilitate the migration are also effective in the post-migration environment, such as: • The Software Migration Workgroup will reform in 2007 as the Data Coordination Group, and meet on a regular basis. Their focus will be the identification and resolution of common data issues, data accuracy, ongoing metadata enhancement, and other topics and issues as warranted. • The Training Workgroup will continue to develop training curriculum that is useful to the KCGIS community. This group will be guided by, and report to the KCGIS Technical Committee. • The Licensing Workgroup will continue to meet until it has met its goal of creating a viable enterprise software licensing coordination and management environment. • The GIS Application Developers Group will continue to guide the development of requirements and design of the various enterprise applications identified as necessary in the post-migration environment.

Interdependencies	The GIS Software Migration was an enterprise-wide initiative, and relied heavily on the active participation of KCGIS agencies. While the migration effort has come to a close, their continued participation in the Data Coordination group will ensure that data issues are resolved promptly and efficiently.
Status	Closing.
Target	Q1 2007
Activity	▪ Complete post mortem document and submit to KCGIS Technical Committee.

Name	**GIS Software License Consolidation**
Description	This project involves a proposal for all concurrent-use ArcGIS 9.x licenses to be consolidated, managed, and accessed from a central enterprise repository to be administered by the KCGIS Center. This includes all licenses currently managed by the KCGIS Center and those held by all King County agencies. The license consolidation proposal is detailed in a document prepared November 22, 2005 by the Software Migration Licensing Subgroup.
Interdependencies	Consensus of KCGIS agencies to proceed with pooled licensing concept.
Status	In progress
Target	2007
Activity	▪ Continue to monitor license usage to measure adequacy of existing licenses to meet needs of agencies in a consolidated license environment. ▪ Work with county agencies to address and mitigate their concerns with the consolidation proposal in attempt to achieve 100% concurrence. ▪ Determine the most cost-saving and efficient licensing scenario and implement it.

Name	**GIS Training Curriculum Development**
Description	The goal of this project is to create a training program for ongoing and relevant GIS education, which will empower current and potential GIS users as proactive spatial thinkers, who can support better decision-making, and deliver superior public service using GIS tools. This goal is achieved by developing training opportunities that are modular, customized, and geared toward specific categories of users within the GIS community. The KCGIS training program and curriculum is fully described in an annual update (see www.metrokc/gis/kb/Content/TrainingPlan.htm).
Interdependencies	Active participation and commitment by knowledgeable GIS staff with needed expertise to help with course development.
Status	In process
Target	2008

Activity	▪ Complete annual update of training plan in first quarter of 2007 and submit to KCGIS Technical Committee for approval. ▪ Continue development of course material and integrate new courses into training calendar. ▪ Identify next round of new courses and continue iterations of course development until all courses in curriculum are completed.

Name	**Data Coordination Group**
Description	Transitioning from the Software Migration data migration effort, data stewards will continue to meet periodically. This will provide a forum to resolve specific data set issues and to address cross-agency database configuration topics, such as shared coded value domains, maintaining consistency across the enterprise SDW, and any old business remaining from the All but Cadastral Data Conversion workgroup. Established configuration management tools and protocols will be updated as necessary to ensure a continued best practices effort. New protocols will be documented, stored in the Resources folder, and cataloged for future reference by data stewards. The group will look for opportunities to maximize the effectiveness of the organized and synchronized database that is a result of the data migration project. This will include further optimization of existing data layers, elevating agency-level data to the enterprise, dealing with data redundancy issues, and further enhancing enterprise metadata. The group will support on-going or newly defined Priority Initiative data projects, as well as develop option summaries for potential cross-agency data development projects to be reviewed by the Technical Committee. This last effort will be addressed as part of a broader 'data gap' analysis to be undertaken by the group. Individual agency steward participation will vary depending on the specific agenda topic(s). Key non-GIS stakeholders will also be invited when necessary.
Interdependencies	Coordination and scheduling with KC GIS agency data stewards and other key stakeholders (users, developers, DBAs), as necessary.
Status	In progress.
Target	End of 2007, then on-going as need dictates.
Activity	▪ Initial brainstorming to develop and prioritize a 'wish list' of data enhancement and data development needs, cross-referenced to the 2007 O&M plan. The group will look for 'low-hanging fruit' projects to serve as targets for establishing the mechanisms for larger and longer-term efforts. ▪ Look for specific data sets that might effectively share a common coded value domain or relationship class. This will expand the enterprise-wide knowledge and experience with these database objects, and lead to procedures for optimizing data through cross-dataset dependencies. Initially, the item-frequency data dictionary will be used to define potential candidate layers and items. ▪ Address specific opportunities to meet multiple agency data requirements by sharing common geometry among multiple children layers, each with a different, supporting business table dependency. A simple example would be Roads Services detention ponds data set sharing WTRBDY geometry, but delivered as a

	child layer with attached Roads business-specific attributes. ▪ Evaluate the needs and requirements for publishing Spatial and Tabular View data (currently maintained only in the SDE GDB) as a stand-alone shapefile and dbf table, respectively. ▪ Work on new data set issues as determined by the group, or forwarded by the GIS Technical Committee

Name	**Non-KCGIS Data Refresh Process**
Description	The original scope of this task involved expanding the current data management/storage design for non-KCGIS data. This would have included adding procedures for housing and delivering data provided in CAD-based format, Personal GDBs, or other non-ESRI formats. However, after further review, it appears that adhering to a standard shapefile format storage model for non-KCGIS data will provide the most efficient access to the largest group of users. The relatively slow adoption of ArcGIS software across the enterprise limits the usefulness of delivering data in Personal GDBs, while an improved skill set and expanded toolset make wholesale backend conversion and delivery of non-shapefile formats more reasonable. This task is now realigned to address three main issue areas regarding non-KCGIS data: • Improve the workflow and processes so that data delivered as Personal GDB or in non-shapefile format are easily and automatically converted to shapefile format for delivery to the SDW, with minimal manual quality control. • Develop a workflow and tracking mechanism for: o Better evaluating the value of individual non-KCGIS data sets to determine the highest/best need for posting. o Cross-referencing data sets to high-grade those better suited to KCGIS needs, including thematic realignments to improve data associations. o Reviewing non-KCGIS data for 'stale' or out-dated data to be removed from the SDW, including dealing with sources that exhibit less-than-persistent naming conventions. • Investigate those opportunities for integrating non-KCGIS source data into existing KC-maintained data to eliminate redundancy, improve overall data quality, and expand the extent of selected data sets for those enterprise needs requiring data outside the county's boundary.
Interdependencies	None
Status	In progress.
Target	Mid 2007 for developing improved workflow/processes for standard handling of non-shapefile data deliveries to the SDW. Q3 and Q4 2007 for implementation of workflow/tracking procedures that allow cross-referencing and high-grading of existing layers, followed by cleanup.

Activity	▪ Develop Python routines to query and export selected Personal GDB feature classes to shapefile format, including associated dbf tables. ▪ If need demands, develop a parallel workflow for processing CAD-formatted data into shapefile format. ▪ Develop scripted routine(s) for cross-referencing and identifying misplaced/mis-grouped data sets. Include analysis to determine badly outdated data sets, and slate them for removal. Make removed data accessible through a web-based interface similar to the current interface used for accessing inventoried, but non-warehoused data. ▪ Document current examples where KC-maintained data has been significantly expanded or enhanced with non-KCGIS data (e.g., city_3co). Evaluate other possibilities where stewards may be able to integrate and maintain value-added data, thus eliminating the need to house the non-KCGIS base data.

Name	**KCGIS Business Continuity Data and Application Replication**
Description	The KCGIS Center production server housing the Spatial Data Warehouse, and the infrastructure supporting the *iMAP* and *Parcel Viewer* Internet mapping applications were identified as critical applications by the King County continuity of business study. As a result, these systems must be fully replicated at an alternate data center. The purchase and installation of these systems will be completed in 2007.
Interdependencies	Establishment of alternate data center by ITS.
Status	Not started.
Target	2007
Activity	▪ Upgrade KCGIS Center production servers to Microsoft SQL Server 2005 and ESRI ArcServer 9.2 (to enable the database mirroring necessary to replicate data to the Alternate Data Center). ▪ Acquire, install, and configure the backup systems to be located at the new Alternate Data Center (one Web server and one application server). ▪ Configure, test and ongoing operation of data mirroring between KCGIS Center production systems at King Street Center and backup systems at the Alternate Data Center.

Name	**E911 Address Maintenance and Data Distribution Application (AMANDA 911)**
Description	Phase I: Develop an ArcGIS Server based web interface to allow addressing authorities to easily input their address additions, deletions, and updates. This will allow King County to maintain a single authoritative countywide address data resource to serve especially E-911 needs, but also other internal and external needs. During this phase, the participants will include King County departments and three outside addressing authorities. Phase II: After the application is initially deployed and in use with the pilot agencies, it will undergo additional refinements based on user feedback. Additional outside

	agencies will be assisted with implementing the application and using the resulting data layer for their addressing needs.
Interdependencies	Requires the coordination of an interdepartmental development team during Phase I. All phases will require the participation and coordination of both internal King County departments and external addressing authorities in using the web application and address data layer.
Status	In progress.
Target	Phase I: Q2 2007 Phase II: Q4 2007
Activity	▪ Phase I: ▫ ArcGIS Server and Stratus 4300 server implementation ▫ Develop and refine functional requirements ▫ Web application design and development ▫ Prototype testing and debugging with the assistance of feedback from the pilot agencies ▫ Implementation and deployment of first version of the web application ▫ Preparation of grant required summary of the project and posting of project code on ESRI's web site. ▪ Phase II: ▫ User satisfaction survey of the web application and address data layer. ▫ Continued refinement of the web application guided by the user survey feedback. ▫ Implementation of the web application for maintaining address data by at least six agencies

4.1.3 Data Enhancement and Development

Name	**Cadastral Migration**
Description	The KCGIS Center and Department of Assessments are leading the effort to migrate cadastral data to the latest GIS software and database platform. This effort has resulted in the development and implementation of a new cadastral data model that takes advantage of ESRI's SDE Enterprise Geodatabase (on SQL Server) and ArcGIS software. The new cadastral geodatabase will continue to meet the business process requirements of the Department of Assessments as well as the cartographic and analysis needs for parcel data users across the county. The new cadastral geodatabase incorporates all of the cadastral features of the old RECDNET coverage model as well as new additional features and functionality. The hierarchal feature type coding of RECDNET data provided the means to migrate to the new model. Limitations of the previous RECDNET model and existing data errors make data cleanup necessary in order to realize all features of the new model schema. The functionality of geodatabase topology now allows the enforcement of

	topologic relationships between specific features as well as feature subtypes, providing a powerful tool to identify errors within the model schema. The cadastral geodatabase conversion completed in 2006 provided the necessary cadastral data and capabilities to successfully migrate data, software, and platform on the schedule required. The cadastral migration project in 2007 will focus on the tasks required to enhance existing data, refine newly created cadastral features, and take full advantage of the new geodatabase model.
Interdependencies	In 2007 the Cadastral Migration effort will work towards sharing cadastral geometry with the City of Seattle and consider similar opportunities with other cities. Training, documentation, and interface/tool development activities may be dependent on the release of ArcGIS 9.2 by ESRI.
Status	In progress
Target	Q4 2007
Activity	▪ Topology Error cleanup (primary and secondary rule sets). The new cadastral database design implements a robust set of topology rules to find errors or potential errors. The topology rules have been grouped and errors from each set will be resolved in order of importance. Primary topology errors will be resolved immediately following conversion in 2006 and secondary error resolution will be ongoing in 2007. ▪ Resolve Annotation, Hook, and Block Symbol creation and placement issues that remain post conversion. ▪ Cleanup all persistent tile edge issues within the new Parcel polygon geometry. ▪ Create new “stacking” parcel polygon geometry for undivided interest and vertical property within the Multiple subtype and perform feature class-wide PIN QA checks for completeness. ▪ Perform QC and cleanup on the newly created Encumbrance and Conveyance polygon feature classes. This post-conversion cleanup will utilize geodatabase topology rules to assist in the refinement of the polygon geometries produced by the data conversion process. ▪ Training and Documentation. The migration of client software (ArcMap) and new geodatabase design completed in 2006 will require additional training activities in 2007. Maintenance workflow and procedure documentation will also be updated as needed. ▪ Cadastral Metadata. Metadata will be completed for core cadastral layers upon conversion, with metadata for all layers and additional detail review completed in 2007. ▪ ESRI software upgrade (client/server) to ArcGIS 9.2 and SDE 9.2.

Name	**City Boundary**
Description	Coordinate the replacement of redundant city layers maintained by the Department of Assessments and DDES with one consolidated layer that retains all functionality of the existing independent layers. Assist in the migration of the consolidated city layer and child data layers into an SDE enterprise geodatabase. This project will

	provide law enforcement and other public safety entities a logical geometry-based method of assigning portions of major water bodies to adjoining jurisdictional areas where jurisdiction is not superseded by existing legal code. It will also remove duplicative maintenance efforts and meet a greater range of business needs.
Interdependencies	KCA and DDES, as well as Elections and other agencies, have business requirements that may not be met by a single data model design, both in terms of geometry and attribute structure. Assignment of water body jurisdiction may be constrained by legal definitions not fully defined or available. Progress on this effort is dependent on available staff time of Assessments staff, DDES staff, and KCGIS Center staff.
Status	In progress
Target	Q2 2007
Activity	▪ Resolve inconsistencies in jurisdiction abbreviation codes and work to develop a single coded-value domain for all layers/tables that use or relate to this value. Expand coding model to maintain uniqueness across larger tri-county area. ▪ Develop and document tri-county coded-valued domain for jurisdictions, integrating requirements from Transit and WLRD (maintainers of CITY_3CO). Use enterprise data dictionary to determine other dependent layers and their impact on code consolidation. ▪ Coordinate reconciliation of significant geometry inconsistencies between multiple King County city boundary layers as well as data provided by key cities. ▪ Support the research and documentation of incorporation and annexation boundaries adjacent to or including portions of major water bodies. ▪ Complete initial geometric water body jurisdiction allocation for review and assisting in the prototype maintenance design. Update allocation model with clearly-defined legal definitions that supersede pure geometrical allocation. Demonstrate repeatability of model with changes in water body boundary and varying legal definitions. Work with DDES to incorporate this into their layer maintenance design. ▪ Create final water body jurisdiction geometry, by combining allocation model and legal boundary geometries, and incorporate into the new consolidated city layer. ▪ Assist in the modeling and migration of consolidated city boundary data into the new geodatabase format. Provide design assistance for the maintenance and posting regime within an SDE enterprise geodatabase model. Consolidate all KCA and DDES business requirements into this model.

Name	**Points of Interest Layer**
Description	Reevaluate the need and common ground for a single points-of-interest layer shared by all KCGIS agencies. Develop a restricted inclusion list for testing which would include key KCGIS Center layers of this nature (e.g., FIRESTN, HOSPITAL, and POIPUB) and at least one or two other agency contributions. Prototype a two to three tier attribute model to handle different agency business requirements, and

	model actual location versus parcel or intersection-based location offsets.
Interdependencies	Coordination with key agencies (Transit, Parks, WLRD, and WTD) and sufficient scoping of overall requirements and individual business requirements for both geometry and attribute design. Determine relationship/timing with E911 addressing project
Status	In progress.
Target	Q2 2007 for pilot; if adopted, maintenance of more complete model by year's end.
Activity	▪ Meet with stakeholders to develop overall project plan and to evaluate practicality of meeting different business needs within a single data model. ▪ Develop multi-tiered attribute model to store standard set of required items in first tier with optional agency business values in second level. ▪ Address potential for an offset variable or multiple x,y storage to deal with requirements to store location as other than true centroid. ▪ Develop standard operating procedures to address multiple editors, including primary domain assignments, and mechanisms for quality assurance.

Name	**Extending Landsat Imagery Library and Associated Landcover Product Development**
Description	The core portion of the Landsat Imagery Library was established in 2006 with the acquisition of a series of summer-time satellite imagery for years: 1996, 2000, 2002 and 2004, plus a late-winter 2002 image. A summer 2006 image and possible in-fill of the existing series will be completed early in 2007. The workgroup has finalized a draft classification scheme based on input from multiple county stakeholders. Preprocessing of the images has also been completed. The project was largely dormant the latter part of 2006 due to other work priorities, but 2007 will see the finalization of the scheme and initial classification work. The actual timeline for classification work and quality assessment will be dependent on the time available from a limited pool of skilled interpreters. License consolidation during 2006 will provide the option to make the required software available to additional KCGIS Center specialists, again dependent on staff availability. This would additionally require, at minimum, an introductory training commitment from the WLRD technical lead, supplemented by vendor-based training to maximize the potential of using other staff.
Interdependencies	Primary interpreter and secondary interpreter availability; training for secondary interpreter
Status	In progress.
Target	Q1 2007 for pilot classification, Q2 2007 for 2004 or 2006 scene classification, Q4 2007 for earlier scene additions. Purchase of 2006 scene (and possible infill) during Q1 2007
Activity	▪ Finalize classification scheme, stakeholder and Technical Committee approval.

	▪ Signature (training) site development. ▪ Pilot area classification, evaluation and accuracy assessment. ▪ Complete scene classification, procedure documentation, error analysis. Possible, limited 'ground-truthing'. ▪ Proceed with subsequent scene classifications, labor availability permitting. ▪ Documentation (metadata) and posting of products to SDW.

Name	**Phase II WTRCRS – Linear Measure**
Description	Phase I of the Hydrography enhancement project resulted in significantly updated WTRCRS and WTRBDY geometry and attributes, as well as a full suite of new topographically-based drainage basin layers (TOPO_CATCHMENT, TOPO_BASIN, TOPO_WATERSHED, TOPO_WRIA) and related layers. WTRCRS, WTRBDY and the TOPO drainage series primary line and polygon topology are now in maintenance mode. Phase II work will affect only WTRCRS, where key agency-specific business attributes will be added to the schema and linear measure topology will be created for streams within basins encompassed in whole or part by the King County boundary.
Interdependencies	Continued work by the Hydrography workgroup to finalize the linear measure identification scheme, with sufficient labor available for updating the features with the identifier along with related quality control. Agency-specific business table attribute assignment will be performed by the benefiting agency in a shared editing environment. The workgroup will provide oversight in ensuring logical database design modifications resulting from these additions.
Status	In progress.
Target	Q3 2007 for the linear measure topology addition; Agency-specific business attribute addition is dependent on the affected agency's staff availability or Client Services agency support.
Activity	▪ Finalize extent where linear measure system will be applied. ▪ Finalize route identifier design, determine pilot area, apply and test. If possible adapt portion of existing measure-based business table for enhanced testing. ▪ Develop and document, as required, standardized editing tools and environment and/or backend applications to assist and automate linear measure updates. This will expand the existing backend process in place for maintaining database integrity and configuration. ▪ Review agency-specific attribute additions on case-by-case basis. Coordinate editing with primary steward. Establish quality control requirements. Agency coordinates and provides labor for actual editing and quality control. Updates metadata.

Name	**Raster Data Products**
Description	Updates to software and database storage design, since the original data

	development effort, require enhancements to two existing contour isoline data products: 1. Bathymetric data has been incorporated into the digital ground model for all major water bodies and a number of larger lakes within the county. Data products derived from this base have been delivered to the SDW shapefile library, but have not been incorporated into the SDE GDB version. Routines to replace only portions of the single, contiguous feature class and to edge-match newly inserted data (using the Spatial Adjustment Toolbar) need to be developed. 2. The current version of the DXF format 5-foot contours in the 7500 tiling scheme falls below acceptable quality standards due to data gaps and mismatched contours. The updated contour feature class in the SDE GDB, updated in the step above, will be used to develop a seamless set of tiles using ArcToolbox conversion tools via Python or ModelBuilder. Developing Model Builder and/or Python routines to perform these updates will improve the overall quality of the digital ground model database and allow future updates to be performed in a more timely fashion. These steps will also lead the way to the migration of all remaining workstation AML-based grid processing routines to desktop processing.
Interdependencies	None
Status	On hold.
Target	Q2 or Q3 2007
Activity	▪ Develop Model Builder or Python routines to import the updated shapefile version of the 5-foot contour layer (township tiles) into the SDE GDB. Unselect the same tile from the contiguous 5-foot feature class. Edge match new data to the existing adjacent tiles and insert the new data into the contiguous database. Update the key index contour layers. ▪ Develop Model Builder or Python routines to extract seamless 7500 tiles, in DXF format, from the 5-foot contour database. Mimic, as close as possible, the successful attribute structure currently adopted. ▪ Successfully test a sample of the tiles in a CAD-based system prior to releasing to the full data set to the public. ▪ Successfully review seamless database and ensure that no significant differences exist between the SDE database version and the shapefile version stored as township tiles in plibrary3. ▪ Update contour layer metadata with details about bathymetric enhancements, DXF generation, and processing procedures.

4.1.4 Application Enhancement and Development

Name	***PostRep***
Description	This is a set of modularized back-end utilities which includes routines that handle the following: posting of data to the KCGIS Spatial Data Warehouse, implementation of schema changes to the datasets, and QA/QC processing of posted datasets.

	PostRep replaces the functions of the current UNIX update and batch process. In 2007 new utilities will be added to *PostRep*.
Interdependencies	*PostRep* only handles data migrated to geodatabase; non-migrated data will still use the legacy *Update* cycle.
Status	In progress.
Target	2007
Activity	▪ Tune existing *PostRep* by adding the following utilities: ▪ Index replication for tables ▪ Metadata copying for reloaded data ▪ Killing of schema locks ▪ Connections to remote servers for data ready posting

Name	***LibTool***
Description	*LibTool* will incorporate the functionality of the ArcView 3.x extensions KC Shapefile Library and KC Image Library. *LibTool* will reflect the major components of their look and feel to assist users in the transition to the ArcGIS 9.x environment. Users will be able to: easily access KCGIS Spatial Data Warehouse layers, imagery, and metadata via an interface that offers “plain English” labeling; retrieve commonly used sets of symbolized views; save and retrieve their own user-defined sets of symbolized views; generate maps using standard layouts; and easily set standard symbology and relates (if the user is a data steward).
Interdependencies	Coordinate with agencies to incorporate requirements, functionality and “best of” features from various mapping applications. Use *LibTool* development as pilot for multi-agency effort to develop and maintain an enterprise tool.
Status	In progress.
Target	Q3 2007
Activity	▪ Finish requirements gathering. ▪ Develop two initial modules for the application that have been identified as "Make a Map" and image locator. ▪ Build, test, and deploy application. ▪ Prioritize, create, and deploy other modules.

Name	***ParcelTool***
Description	This module will incorporate the functionality of the current ArcView 3.x extension *KC Parcel Tools*. Primary functions are: make queries based on PIN or taxpayer name; query for information based on user-defined criteria (for example distance from a selected parcel); view and map cadastral information with minimal user input;

	and format mailing labels for selected parcels. Much of the functionality identified for *ParcelTool* may be incorporated into other applications, so a decision to proceed with development of this tool will be made in 2007.
Interdependencies	To be developed after *LibTool* is completed and after needs survey has been conducted.
Status	Not started.
Target	2007
Activity	▪ Determine business needs and scope requirements. ▪ Make decision on whether or not to proceed with development.

Name	***iMAP***
Description	*iMAP* is a robust Web-based map viewer that provides access to map layers and other related information. Continuous enhancement of *iMAP* is a key goal, with two primary objectives – improve usability and add functionality based on business requirements. In 2006 a user survey was conducted on *iMAP* in order to help determine the next set of desired enhancements. More than 10 enhancements of *iMAP* were implemented as a result. In 2007, *iMAP* will be maintained and extended as necessary to meet new business needs. No major redesign or functional additions are planned as the focus will begin to shift to developing similar functionality in a server-side solution that will eventually replace *iMAP*.
Interdependencies	Stability of King County WAN and Internet services, as well as KCGIS Center ArcSDE, SQL Server, and ArcIMS infrastructure.
Status	In continuous development.
Target	No fixed target.
Activity	▪ New map sets likely for “Shoreline Master Plan” and “City of Newcastle”. ▪ Identify and develop any new functionality as needed for these or other new map sets.

Name	***Parcel Viewer***
Description	*Parcel Viewer* is a Web-based application targeting property searches. The simple interface allows users to navigate the map and select parcels, or search for properties using address, cross streets, or parcel number as input. *Parcel Viewer* interface will be redesigned in 2007 based on feedback from user studies conducted in 2004 and 2006. More space for property information will be provided, and additional search criteria will be added such as city names, S-T-R, and possibly plat names. The address search routines will be improved and an option to display orthophotos will be added. In addition, *Parcel Viewer* will be completely rewritten using the ASP.NET 2.0 framework and the ESRI ArcIMS 9.2 WebADF (Application Development Framework).

Interdependencies	Stability of King County WAN and Internet services, as well as KCGIS Center ArcSDE, SQL Server, and ArcIMS infrastructure.
Status	In progress.
Target	Q2 2007.
Activity	▪ Functional requirements for *Parcel Viewer* have been developed. Review these functional requirements and modify as necessary. ▪ Conduct focus group, record comments, suggestions, problems, etc. ▪ Analyze focus group results and formulate design or functionality modifications. ▪ Implement design of functionality changes. ▪ Design layout and user interface. ▪ Develop new *Parcel Viewer* web application ▪ Test, modify, and repair cycle. ▪ Deploy new *Parcel Viewer* to public.

Name	***KCGISWebService***
Description	*KCGISWebService* is a collection of database search and GIS functions developed by the KCGIS Center and available to other programmers as a SOAP compliant web service. This web service makes it possible for applications on any server to easily access specific search and GIS functions on the KCGIS servers in a secure manner. First deployed early in 2006 there are 14 functions as of November 2006. This web service is expected to become a valuable resource to other King county programmers in 2007, and additional functionality will be developed as needed.
Interdependencies	Stability of King County WAN and Internet services, as well as KCGIS Center ArcSDE, SQL Server, and ArcIMS infrastructure.
Status	In progress
Target	No fixed target.
Activity	▪ Additional functions will be developed and deployed as needed. King County programmers can request new functions during the development cycle of new websites. This web service is deployed on the public GIS web server and is therefore available for use by public sites, however it is expected that this web service will not be generally advertised or listed on web service clearing houses, therefore it will be available mainly by invitation. For example, we may offer to let a local jurisdiction use the web service for conducting select, specific searches of our database from their web site.

Name	***Generate***
Description	*Generate* is a nightly routine that will call various modules to create and/or prepare

	data for posting. It will generate data and then populate the PostRep table flagging it for posting. Modules to be developed include the following: PointLayerFromTable – generates a layer from a table of XY coordinates; LayerFromRelateTable – generates a layer from a table with a field that relates to a layer in the Spatial Data Warehouse (i.e. PIN); AutoUpdate – automatically searches for data in a location provided by the data steward and generates a PostRep record for posting on a specified timetable (e.g. daily, weekly, monthly).
Interdependencies	Dependent on *StewardTool* and *PostRep*.
Status	In progress
Target	Q2 2007
Activity	▪ Program, test, and implement the following modules: PointLayerFromTable; LayerFromRelateTable; and AutoUpdate.

Name	***ParcelHistoryUpdate***
Description	This is a Python script designed to extract all parcel changes from the Edit Version of parcel and insert them into the parcel history layer in the KCAM database.
Interdependencies	Will run nightly in batch.
Status	In progress
Target	Q1 2007
Activity	▪ Create queries. ▪ Create Python script. ▪ Create batch job to run nightly.

Name	***LotSquareFootage***
Description	This is a python script designed to extract a list of parcels from the parcel history where the lot square footage field has been changed and generate a table of those changes for the King County Assessor's office.
Interdependencies	Will run nightly in batch after PARCELHISTORY layer has been updated for that day.
Status	In progress
Target	Q1 2007
Activity	▪ Create queries. ▪ Create Python script. ▪ Create batch job to run nightly.

Name	***KcamEditExtension***
Description	The *KcamEditExtension* is a toolset extension for ESRI's ArcMap. It contains several editing tools for King County Assessor's drafting group to help maintain the cadastral database. In 2007 new functionality will be added to this tool.
Interdependencies	
Status	In progress
Target	Q1 2007
Activity	▪ Add ShowEndPoints – a button to show polyline endpoints and not vertices. ▪ Add CopyCoder – a routine to preserve the TYPE and other coding for boundary and parcel when copied from working layers into versioned CADFEATURES data sets.

4.1.5 Hardware, Software, Database, and Licensing Changes

- Consolidation of certain ESRI software licenses currently maintained on departmental servers with those maintained on KCGIS Center servers may occur during 2007. A workgroup has identified and assessed technical and institutional issues which need to be resolved if such a consolidation is to be implemented. A proposal and recommendation by that group was placed before the KCGIS Technical Committee in November 2005. The Technical Committee has yet to reach a consensus regarding the proposal. Four Technical Committee agencies have initially indicated they will not participate in license consolidation or have expressed serious reservations. In 2007 further attempts will be made to convince all agencies to participate and decisions will be made accordingly before proceeding with consolidation.
- By early 2007, it is anticipated that the server *WILDFIRE* will have been taken out of service permanently. If this occurs as planned, the remaining ArcInfo 7.x and extension licenses which had been maintained on *WILDFIRE* may need to be transferred to the server *ORCA* and upgraded to ArcGIS 9.x. The KCGIS Center will assess the probable demand for additional ArcGIS 9.x licenses and determine which, if any, of these licenses should be transferred and upgraded. This assessment and any consequent license transfers will most likely take place during the first quarter of 2007.
- Through 2006, the server *ORCA* hosted two ArcSDE Server licenses, while three other KCGIS Center servers each hosted one of these licenses. After reviewing the configuration of these licenses and the demands to which they are subject, it has been proposed to reduce ArcSDE Server licenses on *ORCA* from two to one. If the decision is made to proceed with this change, the maintenance on this license will be allowed to expire on January 31, 2007, which is the county's ESRI maintenance anniversary date.
- The KCGIS Center production server housing the Spatial Data Warehouse, and the infrastructure supporting the iMAP and Parcel Viewer Internet mapping applications were identified as critical applications by the King County continuity of business study. As a result, these systems must be fully replicated at an alternate data center outside of downtown Seattle. The Alternate Date Center is scheduled to come on-line in March 2007. At that time, backup GIS systems will be purchased, configured and installed by KCGIS Center staff.
- The network attached storage device that contains DNRP GIS projects (DNRP1) requires an operating system upgrade because Microsoft is dropping patch support for Windows 2000. This

device runs a network appliance version of Windows 2000 Server. The data on this device will be moved to a new iSCSI storage array to be attached to server GISDW.

- Development spatial servers for ArcIMS will be replaced in 2007 with two servers currently used in production. Two, new production servers will be acquired. These will probably be Dell PowerEdge 1950 class systems with dual core processors.
- Pending award of a grant from ESRI the KCGIS Center will acquire a Stratus Fault-Tolerant 4300 Server. This server will come installed with ArcGIS 9.2 Server Advanced Edition software also awarded via the grant. The hardware and software will be used to develop an enterprise solution for maintaining and distributing a countywide addressing database. The project, formally known as "E911 Address Maintenance and Data Distribution Application", and nicknamed "AMANDA 911", is described in Section 4.1.2.
- In 2007 desktop PC replacement in the KCGIS Center will continue on a modified four year cycle. Some 4-year old machines that are still functional may remain in service in order to maintain an adequate development/testing environment for GIS application developers.
- Two obsolete plotters were sent to surplus in 2006. To replace these machines an HP Designjet 3800CP was acquired via asset transfer from the Wastewater Treatment Division. Another plotter may be purchased in 2007 to take the place of yet another plotter that is currently offline awaiting repairs, and may remain so if needed parts cannot be found.
- The King Street Center training facility computers will be replaced in 2007. Funds from renting the facility to ESRI and NOAA will be used to fully offset the cost to purchase the 17 machines.

4.1.6 Staffing Changes

- The KCGIS Center staffing model is developed in coordination with the KCGIS Oversight Committee. For 2007 the overall staffing level remains unchanged from 2006 at 31.0 FTEs. However, the budgeted FTE allocations for two of the business units change for 2006. See the following bullets.
- **Matrix Staffing Services** – The staffing allocation increases from 12.75 FTE in 2006 to 13.40 FTE in 2007 for a net change of +0.65 FTE. This change is based on 0.10 FTE increase for management and administration, a 0.25 FTE increase in matrix staffing for the Parks and Recreation Division, a 1.00 FTE addition of matrix staffing for the Department of Assessments, and a 0.70 decrease in matrix staffing for the Wastewater Treatment Division. Seven agencies are supported through Matrix Staff Services in 2007 at the following levels: DNRP – Parks and Recreation (1.25 FTE); DNRP – Solid Waste (1.00); DNRP – Wastewater Treatment (3.30); DNRP – Water and Land Resources (4.00); DOT – Road Maintenance (1.00); DOT – Transit (1.00); and Assessments (1.00).
- **Client Services** – The staffing allocation decreases from 5.65 FTE in 2006 to 5.00 FTE in 2007 for a next change of -0.65 FTE. This change is based on reallocation of 0.65 FTE to Matrix Staff Services to support additional management overhead and increased demand for matrix staffing.
- **Enterprise Services** – The staffing allocation remains unchanged at 12.60 FTE.

4.1.7 Other Changes

- None anticipated.

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. 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.
    - *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. From this, maps and lists are generated for Washington State Department of Revenue for apportionment of utility valuations and the state levy.
    - *Appeals* – GIS data and analysis 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.
- GIS implementation takes place throughout Assessments. The Accounting Division Manager oversees the GIS Specialist staff as well as the mapping unit supervisor. The GIS professionals who maintain the cadastral data report to the mapping unit supervisor. The GIS coordinator reports to the Accounting Division Manager. The IT Division Manager manages staff to integrate GIS into department wide applications. Within the Commercial and Residential appraisal divisions, there are appraisers with GIS expertise that lead various efforts within these divisions. The four division managers are peers within the department.
- Three distinct GIS advances will take place during 2007. First, during 2007 Assessments will attempt to integrate the findings from the GIS/IAAO study it performed in 2005/2006 into the appraisal process. The study found that using Geostatistical Analyst to build a response surface using specific characteristics improves the model results. On a limited basis, Assessments will incorporate response surfaces into the annual update process. The second advance will be the

full implementation of the cadastral geodatabase. By the end of 2006, the cadastral data will be fully migrated to the geodatabase and cadastral maintenance and associated processes will take place in the new paradigm. We expect modifications to current processes during 2007 as the department and other users adjust to the new database. The third change for 2007 will be the replacement of MapObjects tools in our department data access applications with ArcEngine.

- While no activity is planned for 2007 the effort to move the cadastral data to an Assessments server is still under consideration for 2008. Discussions regarding this effort will occur during 2007.
- Assessments plays an integral part of King County's GIS through maintenance of the cadastral data. Assessments works closely with the KCGIS Center to maintain the countywide cadastral data. Since Assessments does not have a staff of GIS programmers there is heavy reliance upon the expertise of the KCGIS Center to build, maintain and support applications for maintenance of the countywide cadastral data set, as well as to help ensure the integrity of the cadastral data. 2007 will provide key information regarding the effort to maintain the cadastral geodatabase. Assessments incorporates applications developed by the KCGIS Center, namely *Parcel Viewer* into internal and web-based applications, and *AVLib* for ArcView applications.

4.2.2 Planned Project Activity and New Projects

Name	**Cadastral Data Redesign and Conversion**
Description	Migration of the existing Cadastral data (RECDNET, RECDANNO and PARCEL) from ArcInfo coverages to a geodatabase.
Interdependencies	Working with KCGIS Center to monitor data, processes and applications for newly developed cadastral geodatabase.
Status	In progress.
Target	Through 2007
Activity	▪ Monitor database performance. ▪ Assess maintenance processes and develop streamlined procedures as necessary. ▪ Monitor database integrity. ▪ Administer database enhancements. ▪ Ensure staff are properly trained. ▪ QA/QC and cleanup of migrated data. ▪ Data updates to take advantage of database design.

Name	**Non Cadastral Data Migration**
Description	Migration of the non-cadastral data from ArcInfo coverages to a geodatabase.
Interdependencies	Cadastral migration.
Status	In progress.

Target	2006/2007
Activity	▪ Migrate City layer in conjunction with DDES city layer (See Data Enhancement and Development section). ▪ A number of miscellaneous project layers will be copied from Wildfire coverage format to data storage at Assessments. These will be migrated during the year on an as needed basis.

Name	**Mapping Application Retool Study (MARS)**
Description	Develop functionality to replace numerous AML based mapping tools.
Interdependencies	Implementation of ArcEngine applications. Ability for Assessment staff to become map free.
Status	In progress.
Target	2007
Activity	▪ Determine where paper maps are no longer required. ▪ Determine whether functionality can be replaced by an application. ▪ Develop ArcMap based process to replace maps that are still necessary. ▪ Work with application developer to integrate tools for map replacement.

4.2.3 Data Enhancement and Development

Name	**City Layer Consolidation**
Description	Replace existing city boundary layers maintained by Assessments and DDES with one consolidated layer that retains functionality of the existing independent layers. The final layer will be maintained jointly by DDES and Assessments.
Interdependencies	Assessments, DDES and KCGIS Center staff time. Wildfire shutdown.
Status	In progress.
Target	2006/2007
Activity	▪ Research and document precise incorporation and annexation boundaries adjacent to or including portions of major water bodies. ▪ Reconcile conflicting annexation boundaries between Assessment's and DDES city layers. ▪ Finalize attributes for consolidated layer. ▪ Define and test shared maintenance procedures and protocols.

4.2.4 Application Enhancement and Development

Name	**Cadastral Data Maintenance Tool Suite**
Description	Tools/applications required for maintaining the cadastral data.
Interdependencies	KCGIS Center staff time.
Status	In progress.
Target	2007
Activity	▪ Define, build, and test tools for maintenance efficiency and data integrity. ▪ Maintain and enhance tools. ▪ Define and implement replacements for data posting processes. ▪ Insure data integrity.

Name	**Assessments Data Access Applications**
Description	Several data access applications for Assessments written in MapObjects 2.2 will be replaced with ArcEngine based tools.
Interdependencies	ArcEngine
Status	In progress.
Target	Mid 2007
Activity	▪ Define, build, and test tools for data access.

4.2.5 Hardware, Software, Database, and Licensing Changes

- KCA staff are having internal discussions regarding the value of license consolidation.
- Purchase ArcEngine runtime licenses.

4.2.6 Staffing Changes

- One cadastral maintenance staff will retire at the end of 2006.
- Funding for intern or work study students to help with the QA and cleanup of the GDB cadastral data is available in 2007.

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 the community through the implementation of 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 240 employees organized into four divisions, and the Director's Office. The four divisions are Administrative Services, Building Services, Fire Marshal, and Land Use Services.
- Core business functions of DDES supported by GIS include the following:
    - Permit Receipt (Intake) – Permit technicians use applications and databases developed by the IS Section during permit screening and intake. These 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 using GIS tools. Permit viability is assessed, permit requirements determined, and permit routing initiated. Customized applications integrated with the department's permitting system provide these functions at the public front counter and in the permit intake center.
    - Permit Review – GIS tools are used in several sections of the department to support permit review. For example, the Site Engineering and Planning Section use them to generate a series of maps for each project under review. These maps illuminate a range of factors that influence site planning. The Plan Review Services Section uses GIS to determine snow-load and site slope factors, which guide decisions on roof and foundation requirements. The Current Planning Section uses GIS 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. The Fire Investigation Section uses GIS maps to support prosecution of arson crimes.
    - 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 programs with regulatory impact including the Endangered Species Act (ESA) response, comprehensive planning, sub-area planning, critical areas protection and management, and special use studies.
    - Public Information – GIS maps, data, and applications are used extensively in the department for public information and education. Development controls such as zoning, land use, and sensitive areas 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 including the "Development Conditions Search Engine" and the "Property Information (Planning)" and "Sensitive Areas" map sets of *iMAP*.
- The IS Section is responsible for carrying out the GIS program plan for the department. The Section Manager is the IT Service Delivery Manager for DDES. In addition to programming, technical support, network administration, database administration, and addressing staff, four GIS analysts report to the IS Section Manager. In order to reduce time needed to deliver department services, enhance permit review, and support decision-making, the IS 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.
  - Data conversion to ensure consistency between the GIS and the permit system.

- The IS Section provides services to DDES staff, customers and stakeholders. Minor requests for assistance come directly from DDES staff to GIS analysts. Larger requests come more formally through requests to management. After service requests have been evaluated and approved, they are routed by the Lead GIS Analyst to appropriate GIS staff for response. When needed, the IS Section provides subject area expertise or project materials to other King County agencies.
- The Lead GIS Analyst works with the IS Section Manager to coordinate internal efforts, ensure efficient use of GIS analyst/programmer time, and coordinate GIS data development and maintenance with other agencies.
- The IS section of DDES participates in the successful exchange of 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. IS section GIS Analysts take an active role in facilitating data sharing between DDES and other King County agencies.
- DDES GIS analysts actively participate in the county-wide GIS program. The Lead GIS Analyst has vice-chaired and chaired the KCGIS Technical Committee in previous years. Each analyst participates on at least one sub-group 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.
- The main opportunities for DDES GIS lay in the continued development of *GISMO* and the Permit Integration project that began at DDES in 2006. The release of *GISMO 2.0* in third the quarter will provide the following benefits.
  - Alleviate the increasing maintenance load of the archaic ArcView 3.x applications.
  - Provide DDES with the tightest possible integration with new interdepartmental permit applications and processes that come out of the Permit Integration project.
  - Bring an end to the de facto moratorium on adding new functionality to custom DDES GIS applications during *GISMO* development.
  - The main pitfall for DDES GIS is keeping pace with the fast pace of change. The KCGIS Center, and other agencies will be moving to upgrade to version 9.2 of various ESRI software. DDES needs to update ESRI server software quickly enough to maintain interoperability. The as yet unknown schedule for the Permit Integration project may present challenges for meeting application development deadlines.

4.3.2 Planned Project Activity and New Projects

Name	**Back Office Automation**
Description	The purpose of back office automation is to take advantage of the successful KCGIS software migration, the geodatabase data format, and the scripting tools in ArcGIS to automate several data duplication, formatting, and processing steps that were formerly done manually using ArcView 3.1.
Interdependencies	Certain specific processes depend on coordinated effort between DDES and the

	KCGIS Center.
Status	In progress.
Target	2007
Activity	▪ Automate open permits GIS layer generation. ▪ Automate monthly tabular data update procedure. ▪ Accommodate the authoritative addressing database when it becomes available. ▪ Automate a geodatabase process to update INTERMPAA layer.

Name	**Permit Integration Project**
Description	The Permit Integration Project (PI) is an effort to integrate systems associated with the King County permitting process. The scope of the PI is not yet defined; however it is expected to integrate data between multiple King County agencies. DDES is the lead agency. While the specific goals for the DDES GIS program are not yet defined, preliminary expectations are that an ArcIMS Web service will be developed to provide geographic parcel characteristics to the permit system, utilizing on-demand spatial overlay. This integration effort will coincide with the ongoing development of *GISMO*. This coincidence of timing offers an excellent opportunity to dramatically improve the DDES GIS user experience.
Interdependencies	DDES GIS' participation in PI is dependant on the outcome of successful requirements, product selection, and design steps.
Status	Not started.
Target	Not yet set.
Activity	▪ Participate in design process.

4.3.3 Data Enhancement and Development

Name	**Shoreline Management Program Update**
Description	Develop new criteria for Shoreline Management Designations, apply designations to shorelines of the state, and replace the existing SHORELINE_MMP layer in the KCGIS Spatial Data Warehouse.
Interdependencies	This effort is a collaboration between DNRP and DDES, with the lead taken by DNRP. The DNRP WLR Visual Communications Unit GIS staff are leading the analysis effort. DDES GIS staff are aiding with data layer and analysis expertise.
Status	In progress.
Target	2007
Activity	▪ Participate in GIS group meetings. ▪ Implement new Shoreline Management Designations in *Base2*, *GISMO*, *iMAP* sensitive areas map set, the Districts Report and any other resource required by DDES staff.

Name	**Consolidated City Layer**
Description	Replace existing redundant city and annexations layers maintained by Department of Assessments and DDES with one consolidated layer that retains all functionality of the existing independent layers. The new layer will provide superior derived layers for cartographic purposes. The new layer will meet the need of the Sheriff's Office to identify the jurisdiction of all portions of major water bodies. The final layer will have shared editing by DDES and Assessments.
Interdependencies	This effort is facilitated by the KCGIS Center staff. Progress on this effort is dependant on available staff time of Assessments staff, DDES staff, and KCGIS Center staff.
Status	In progress.
Target	2nd Quarter 2007
Activity	▪ Change relevant applications from accessing DDES, Assessor, or REALS city layers to accessing new consolidated city layer. ▪ Research and document precise incorporation and annexation boundaries adjacent to or including portions of major water bodies. ▪ Promote the use of the consolidated city layer among agencies that are currently expending redundant effort, and channel that effort in improving the accuracy and timeliness of the consolidated city layer.

Name	**Authoritative Addressing Database**
Description	Replace existing redundant property address layers maintained by various county agencies with one consolidated layer based on the database currently under development by the E-911 Program Office. The new layer will reduce confusion for King County property owners by eliminating conflicting addresses at various agencies. The new layer will facilitate providing new and corrected addresses to the E-911 Program Office, as well as have improved accuracy, and be authoritative across all municipal jurisdictions of King County.
Interdependencies	This effort is dependant on the E-911 Program Office project currently underway. It is facilitated by the KCGIS Authoritative Address Workgroup. Progress on this effort is dependant on available staff time of all participating agencies.
Status	In progress.
Target	2007
Activity	▪ Implement procedures and standards for submitting changes to the E-911 Program Office at DDES. ▪ Change DDES addressing practices to use Authoritative Addressing Database as source for all address data. ▪ Capitalize on opportunities provided by the Permit Integration project to use the Authoritative Addressing Database.

Name	**Field Updates to Critical Area Layers**
Description	A pilot project is proposed to use the critical area data collected by inspectors in the critical areas section to supplement the existing layers that were developed for the 1990 Sensitive Areas Map Folio.
Interdependencies	None.
Status	Not started.
Target	2007
Activity	▪ Develop procedures for situations when the entire feature (e.g. wetland, stream) is not captured in the field work, and needs to be integrated into the existing layer. ▪ Develop quality control procedures so field staff can verify the work of GIS data editors. ▪ Test procedures. ▪ Begin integrating field data.

4.3.4 Application Enhancement and Development

Name	***GISMO*: Release 1.1**
Description	In release 1.1 *GISMO* will add the following features, which previously had been provided through *Base2* (see Maintained Applications in the appendix for details on *GISMO 1.0* and *Base2*): ▪ New search methods (Address, Taxpayer, Permit Number, Condo) to access existing reports. ▪ Ability for existing reports to handle multiple parcel selections. ▪ New parcel buffering function to meet public notification needs. ▪ New mailing label generation function, utilizing buffer function and implementing community group notification. ▪ Enhancement to GISMO error reporting and alert processes on the back end.
Interdependencies	None.
Status	In progress.
Target	January 2007
Activity	▪ Application implementation. ▪ User testing. ▪ Application deployment.

Name	***GISMO*: Release 2.0**
Description	In release 2.0 *GISMO* will add the following features which previously had been provided through *Base2*: ▪ On screen map display, including pre-symbolized map themes. ▪ Interactive spatial layer query of map themes. ▪ PDF based, hard copy map output, providing both fixed and user specified scales, as well as map standards compliant layouts.
Interdependencies	Successful completion of *GISMO 2.0* will allow *Base2* to be retired.
Status	Not started.
Target	3rd Quarter 2007

Activity	▪ Write functional specification. ▪ User testing of prototypes. ▪ Application implementation. ▪ User testing. ▪ Application deployment.

4.3.5 Hardware, Software, Database, and Licensing Changes

- The GIS servers currently on HP tc3100 hardware are scheduled and budgeted for replacement during 2007. This is part of the normal server hardware upgrade cycle for DDES.
- ArcSDE on *DDES-707* was planned to be upgraded from 8.3 to 9.1 in 2006. Due to delays in acquiring test hardware, DDES is evaluating upgrading directly to ArcSDE 9.2. The evaluation and upgrade are expected to be complete by the end of January 2007.
- MS SQL Server 2000 on *DDES-707* may be upgraded to MS SQL Server 2005 during 2007. This depends on budgetary considerations and the decisions made regarding ArcSDE.
- DDES will evaluate the need and budgetary ability to upgrade ArcServer Standard Enterprise 9.2 to ArcServer Advanced Enterprise 9.2 in 2007.
- The ESRI license consolidation that has been considered and proposed during the KCGIS software migration project continues to be very attractive to DDES. There is increasing demand to provide access to ArcMap for a small number of non-GIS staff at DDES. The flexibility of consolidated licensing promises a smaller budgetary impact than if DDES needs to purchase more ArcInfo floating licenses to meet peak simultaneous use demand. DDES will continue to pursue license consolidation through the KCGIS Technical and Oversight Committees.

4.3.6 Staffing Changes

- No staffing changes are expected.

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 13 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 to the E-911AddressPoint 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. For the 2007/08 years, 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 13 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 by an address authority. 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 is responsible for keeping the E-911 GPS Address project on task, 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 13 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 13 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 KCGIS ST_ADDRESS layer. In the future, ST_ADDRESS will be replaced by a hybrid road layer generated from ST_ADDRESS and TNET 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. By end of 2006 E-911 will have purchased a new ArcSDE version of X9GIS. The X9GIS software is an extension onto ArcGIS 9.2. 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 somewhat by the use of work study program staff.
- Opportunities include future coordination with the KCGIS Center to exchange GIS data with city GIS departments. 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 streets and facility locations) on a near-live basis to the rest of KCGIS.
- A key challenge will be to keep up with the new and changed address information after the completion of the E-911 GPS Address project so that the address data base does not fall behind will be challenging for E-911 GIS staff. In order to keep city and county address information that has changed, been updated, and added through new development in King County, the E-911 Program Office GIS and MSAG coordinator staff is currently in the process of a face-to-face meeting with all 39 city addressing contacts. The meetings are set up to introduce the E-911 GPS Address project to the individual cities and their address coordinators so that they are aware of the extensive address data collection effort. The meetings are also to ensure that they continue to provide the E-911 MSAG address coordinator with the most up-to-date address information in their jurisdiction that includes address changes, new addresses, and in some cases future development.
- 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	**E-911 GPS Location Address Project**
Description	Currently an ongoing project due to be completed April of 2007. The object of this project is to enable the association between wireless and Voice over Internet Protocol (VoIP) 911 caller locations and actual street addresses in the Public Safety Answering Point (PSAP) E-911 maps. This will facilitate the ability of the PSAPs to dispatch police, fire, and emergency medical responders to specific addresses rather than general areas. In order to accomplish the association between the 911 caller latitude/longitude locations and street addresses in the mapping system, the addresses throughout King County must be GPS located. Currently we are nearing completion of the first collection phase. Post processing of the data is ongoing and second collection has been completed for some of the cities.
Interdependencies	The E-911 Program intends to continue the contract with the existing E-911 mapping vendor MicroData GIS to GPS locate all addresses in King County, due to be completed in April of 2007. E-911 is also dependent on DOT-Transit for access to the TNET roads data and the KCGIS Center to provide GIS data updates to MicroData when needed. Further coordination with the KCGIS Center for technical, informational, and advisory support.
Status	In progress.
Target	April 2007
Activity	▪ Work with MicroData Vermont office on E-911 GPS Address Project. ▪ Work with GPS field technicians collecting site data in King County. ▪ Meetings with 39 city addressing coordinators of King County. ▪ Import of GIS data from Vermont to E-911 Office for testing. ▪ Implement new mapping software and hardware locally and at the PSAPs. ▪ Loading and testing of E-911 GIS data at the PSAPs.

4.4.3 Data Enhancement and Development

Name	**E-911 Address Point Enhancement**

Description	Keep up-to-date the GPS address locations of addressable site points in King County for the E-911 Map application. Address points will be used to accurately pinpoint 911 emergency calls for dispatch. With a variety of wireless and land line phone services being used by the public to call 911, GPS address locating building points will vastly improve the abilities of emergency response personnel to locate callers. Through aerial imagery and field verification address points are added to the E-911 address point layer.
Interdependencies	DOT-Transit, the KCGIS Center, and individual city address contacts.
Status	In progress.
Target	Ongoing
Activity	▪ Use the x9GIS software and GPS field collection software to keep up-to-date address information for King County after the E-911 GPS Address Project is complete. ▪ Upload weekly updates to the KCGIS Spatial Data Warehouse and PSAPs on new and updated address and street information. ▪ Field verify new address points and address changes reported to the MSAG coordinator from an address authority.

4.4.4 Application Enhancement and Development

- No activity planned in this area.

4.4.5 Hardware, Software, Database, and Licensing Changes

- E-911 will upgrade to a new version of x9GIS, an extension onto ArcGIS 9.2 in April of 2007.
- A server configured with ArcSDE and SQL Server will be delivered to E-911 by Microdata at the conclusion of the GPS Address Project. This machine will host the new E-911 address point data.
- Server and database management support services will also be requested by the E-911 Office from KCGIS on an as needed basis.
- The following software licenses will be purchased to support the E-911 GPS Address Project:
    - X9GIS extension
    - ArcEditor
    - Spatial Analyst
    - ArcInfo

4.4.6 Staffing Changes

- None anticipated.

4.4.7 Other Changes

- None anticipated.

4.5 DES – Records, Elections, and Licensing Services Division

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

4.6 DES – Facilities Management Division

4.6.1 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.
- FMD is still in the early stages of identifying uses for GIS and adopting the technology. Currently, GIS services are obtained periodically from the KCGIS Center Client Services group. In the future, FMD hopes to develop and deploy GIS internally to help provide effective, economical, and environmentally sound services.
- Facilities Management Division functions for which future GIS support is planned or envisioned include:
    - Managing King County's real estate portfolio
    - Long-term space planning
    - Lease management
    - Parks and general government CIP planning and development
    - Permit management
- In 2006 FMD used the services of the KCGIS Center Client Services (using funds budgeted in IT Project 377133) to design and develop a Real Estate Portfolio Management System (REPMS) that will improve management of the countywide real assets portfolio. The REPMS will be a database application enabling users to store and access data related to county real property assets. The system will integrate with existing KCGIS tools and will support real estate acquisitions, surplus sales, leasing, and permit tracking. In addition, it is expected that the REPMS will provide the impetus for accelerated use of enterprise GIS resources by FMD.
- FMD has made increasing use of GIS resources in the Real Estate Services Section during 2006, including efforts devoted to the identification of surplus, or potential surplus, county properties having potential for development of affordable housing. RES also made use of KCGIS Client Services expertise during 2006 for the production of maps locating county facilities, as a part of FMD annual space planning activities.
- There is no organizational unit responsible for GIS functions within FMD. The division director has designated an FMD representative to the KCGIS Technical Committee, and he provides some internal coordination. FMD staff members have taken GIS training in the past, but their skills need to be updated or refreshed. The division WAN administrator is a potential resource, because of his past GIS experience, but his extensive current work responsibilities do not include GIS. At present, GIS services are obtained from the KCGIS Center Client Services group, primarily in the form of mapping as described above. In the future, GIS application development, analysis, and data development may be obtained from Client Services. The long-term goal for FMD is to become trained and more proficient in using GIS data and software on their own.
- FMD has a division director who is knowledgeable about GIS and who has past experience with GIS business implementation. This is a key strength vis a vis the division's GIS program.
- Although access to the KCGIS Spatial Data Warehouse via the County WAN is adequate, in the Real Estate Services Section LAN staff support is external/contractual and minimal (about 0.5 FTE for 25+ staff). FMD computer hardware was upgraded in late 2003 to enable use of current and future GIS software in the Real Estate Services Section, so there is one dedicated GIS capable PC in that section.

- 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. However, there is no GIS data server in FMD.
- Unfortunately, FMD has few staff currently trained to use GIS tools and resources. Notices of GIS training opportunities are regularly circulated in the Real Estate Service section, but time demands on staff appear to have prevented making use of those opportunities. If this situation can be improved, FMD may consider expanded GIS software licensing in the future.

4.6.2 Planned Project Activity and New Projects

Name	**Real Estate Portfolio Management System (REPMS)**
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 staff time for analysis and programming; limited additional budget authority remaining after 12/31/06 system implementation.
Status	Development nearing completion.
Target	Planned initial system completion and implementation by 12/31/06. Additional reports development and other possible system enhancements may be undertaken on a limited basis in 2007.
Activity	▪ Although system implementation is expected to be completed by year end 2006, additional reports development is likely to be requested by users in 2007. ▪ It is possible that REPMS may result in new data layers for the GIS data warehouse as use develops.

4.6.3 Data Enhancement and Development

Name	**REPMS Related Data Development**
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. The system will improve the ability to track property interests, because no central database for these interests currently exists. No fixed plans or timetable has been established for these enhancements, however FMD anticipates they will begin to be apparent in 2007
Interdependencies	None.
Status	Not started.
Target	2007
Activity	▪ Identify data layers for possible development based on implementation of REPMS

	database.

4.6.4 Application Enhancement and Development

Name	**REPMS Reports**
Description	Additional REPMS reports development is a likely application enhancement in 2007, but the nature of those reports is not known at this time. It is expected that system users will voice desires for report enhancements once the system has been operational for a while in early 2007.
Interdependencies	None.
Status	Not started.
Target	2007
Activity	▪ Work with REPMS users to determine reporting needs. ▪ Contract with KCGIS Center for development of new reports.

4.6.5 Hardware, Software, Database, and Licensing Changes

- None anticipated.

4.6.6 Staffing Changes

- None anticipated.

4.6.7 Other Changes

- FMD anticipates that the Leasing and Surplusing unit within Real Estate Services may make use of KCGIS Client Services staff in 2007 to further define opportunities among surplus, or potential surplus, properties for the development of affordable housing.
- Real Estate Services may have need of KCGIS Client Services assistance in 2007 to address potential King County Council questions about the status of Properties Expert Review Taskforce (PERT) recommendations regarding county owned real estate parcels.

4.7 DNRP – Wastewater Treatment Division

4.7.1 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 about 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 four GIS Specialists who are under the Department of Natural Resources and Parks (DNRP) GIS matrix-management structure so are organizationally located within the King County GIS Center. This structure allows for the administrative management of the analysts coming from the KCGIS Center Manager while the day-to-day work-load management comes from the lead for the Technical Resources Group within WTD.
  - The four specialists share responsibility for project support, cartography, and data maintenance with each specialist specializing in different areas including database administration and application development. One of the four specialists will spend 0.3 of an FTE on WTD projects in 2007.
- The WTD GIS team provides the following services:
  - Cartography: for presentations, reports, and analyses.
  - Analysis: to answer questions regarding the wastewater system infrastructure, capacity and future needs, property, political boundaries, and population changes.
  - Data development and maintenance.
  - Database and geodatabase development and maintenance.
  - Programming and application development: including applications for individual, division, and county-wide use.
  - GIS user support.
- WTD GIS Program Challenges.
  - Within the next 5 years the GIS support for the I/I and Brightwater projects is expected to decrease requiring a reevaluation of the FTE level needed. GIS work available for new WTD projects including a general database administrator role for the division, programming needs, and other GIS related projects not yet identified may compensate for the loss of work in this time period.
  - WTD has data sets that are relied on for making decisions which the WTD GIS team manages. 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.
  - 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.

- WTD GIS Cross Agency Issues – The WTD GIS team will:
    - Continue to require enterprise services support from the KCGIS Center on I/I application, IMS and other projects including WTD's Intranet Data Access Application. This application is playing an integral role in the grant application which may result in an ArcServer license and necessary hardware.
    - 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 their own server.
    - Continue to work with Public Health to acquire septic system records.
- 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.
    - Data Maintenance – The WTD GIS team currently maintains 16 WTD datasets. The information for three of these datasets is provided by the principal end user; an application allows the end user to update and maintain the data while a GIS layer is automatically created. Two other data sets, Flow Monitor and Rain Gauge, will be transferred to their proper stewards and GIS applications developed so the stewards can manage their data.
    - Dataset Creation – Two data layers need to be created to assist WTD decision-makers in meeting future wastewater capacity issues. One layer will identify the parcels that are currently using septic systems. The next will identify drinking water conveyance.
    - Data Quality – Ensuring that the King County sewer line and facilities data sets are up to date and accurate. The FIRS, Sewer Agency and Local Lines layers are datasets constantly in flux which need regular updates.
    - Programming/Application Development – Data maintenance tools that allow the end user to update and add data and automatically create a GIS layer(s), tools to create cartographic products, and IMS (Internet Map Server) pages will be developed to enable WTD staff to maintain their data and produce simple maps as needed. Also, work is currently underway to identify data needs and uses, GIS and other data, so as to develop applications to more efficiently access and leverage the data.
    - Metadata – ensuring that the metadata on all public and working servers is up to date so WTD staff can access the correct datasets for their projects.
    - 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 plans to develop 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.

- WTD GIS and KCGIS Relations
  - Much of the data created for the WTD projects mentioned are 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. To adequately support a breadth of application needs the WTD GIS team create 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.

4.7.2 Planned Project Activity and New Projects

Name	**FIRS to GDB**
Description	Migrate shapefile based FIRS data (facilities, sewers, inspections, and conditions), and managing application, which is avenue based in ArcView 3.x, to a GDB and ArcGIS 9.x.
Interdependencies	None.
Status	75%
Target	9/07
Activity	▪ Load inspections, conditions. ▪ Add flow monitors and local lines to the design. ▪ Complete tool development for editing by Facilities Inspection staff.

Name	**Onelines**
Description	Update of atlas showing parcels, roads, and sewer conveyance in the WTD service area. King County WTD pipe and facility attributes are the focus. Current Onelines are on the intranet and completion of this atlas update will result in an update of the Onelines intranet site as a maintenance issue.
Interdependencies	None.
Status	5%
Target	12/2007
Activity	▪ Five year update of atlas – includes extensive cartographic work and atlas production in addition to data QA/QC and stakeholder evaluations.

Name	**System Map Book**

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	None.
Status	Not started
Target	12/2008
Activity	▪ Extensive cartographic work and atlas production in addition to data QA/QC and stakeholder evaluations.

Name	**Non GIS Database Plan**
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.
Interdependencies	None.
Status	Not started.
Target	08/2007
Activity	▪ Research data that fits description above. ▪ Develop plan.

4.7.3 Data Enhancement and Development

Name	**As Built Link**
Description	As built drawings show King County sewers and facilities as they are built. Scanned drawings are available via the intranet, but they are difficult to search through. This link would allow the user to click on a pipe or facility located on an online map and have the As built drawing(s) come up.
Interdependencies	None.
Status	20%
Target	12/2007
Activity	▪ Extract list of drawings from scanned drawings database. ▪ Create GDB with all appropriate drawings. ▪ Add spatial extents from all drawings.

Name	**Site Plan Development**
Description	Create a data layer showing the wastewater treatment plant sites including building foot prints. This will assist the treatment plant staff in maintenance, disaster planning and other activities.
Interdependencies	None.
Status	5%
Target	12/31/07
Activity	▪ Research orthophotos and parcel data layer to determine best data source. ▪ Extract data. ▪ Create site plan data layer.

Name	**Waterlines GDB**
Description	Create a geodatabase of water supply lines in the WTD service area. Currently, King County does not have water supply information. This data layer will assist in determining where water is available in case residents lose access to their primary water source during construction activities.
Interdependencies	County water districts.
Status	10%
Target	12/31/07
Activity	▪ Contact local water service utilities. ▪ Collect water supply line data layers. ▪ Compile data into GIS format. ▪ Create GDB.

Name	**Storm Water GDB**
Description	A geodatabase of all storm water collection systems within the WTD Service Area. Currently King County does not have a comprehensive storm water collection dataset. This information with assist WTD staff in planning, upgrades and maintenance of King County's system.
Interdependencies	Local storm water agencies.
Status	5%
Target	06/08

Activity	▪ Collect data. ▪ Compile data. ▪ Create GDB.

Name	**GPS System**
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	20%
Target	12/31/07
Activity	▪ GPS facilities. ▪ Conflate FIRS data to GPS information.

4.7.4 Application Enhancement and Development

Name	**Intranet Data Access Application**
Description	Develop an intranet site 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. Examples include: o Flow/Flow monitors o Rain/Rain gauges o Tidal o Documents o AsBuilts o Photos o GIS o Environmental data
Interdependencies	To be determined by needs assessment but expected to be extensive.
Status	5%
Target	Initial deliverable of usable site with limited functionality but full data linking by Spring 2007.

Activity	▪ Needs assessment. ▪ Data research. ▪ Page with links and contact. ▪ Built out page with some GIS and .ASP functionality. ▪ Full site to be determined by needs assessment.

Name	**WTD Google Map Site**
Description	Development of an Internet site that will serve up basic WTD system information to the public. This effort differs from the Intranet Data Access Application described above in that it serves data to the public rather than internally and the level of data being served is less robust including phone numbers and locations rather than flows and engineering drawings.
Interdependencies	Google for API and KC ITS for Web standards.
Status	90%
Target	12/2006
Activity	▪ Program Google Map API to accept WTD facility data. ▪ Format site to meet ITS and DNRP Internet standards.

Name	**Layout Tool**
Description	An ArcGIS tool that allows end users to select data layers and map size and have a map automatically generated.
Interdependencies	KCGIS Center
Status	Not started.
Target	12/2007
Activity	▪ Acquire code from past layout tools. ▪ Transfer code to ArcObjects/Python. ▪ Launch tool.

4.7.5 Hardware, Software, Database, and Licensing Changes

- In 2007 WTD plans to put one ArcInfo license into use that is being migrated from the I/I project. This is in addition to the three ArcView licenses already migrated to WTD desktops. The four specialists utilize ArcView and ArcInfo licenses from the pool of licenses maintained by the KCGIS Center and funded through interdivisional fund transfers.

4.7.6 Staffing Changes

- One journey level GIS Specialist position will be split with 30% of time devoted to WTD efforts and 70% to KCGIS Center needs. This is a split of an already reduced schedule due to a new child.
- WTD will employ one intern through the 2006-2007 school year to aid in AsBuilt data development and assist various cartographic and analysis projects. This intern will work 15 hours per week.

4.7.7 Other Changes

- None Planned

4.8 DNRP – Water and Land Resources Division

4.8.1 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 four 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 four 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. 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 KCGIS Spatial Data Warehouse (PLIBRARY), and/or the DNRP Data Warehouse (DNRPLIB). Specific business functions include:
  - ***Regional Services*** – GIS services for programs including WRIA/watershed support, groundwater management, and hazardous waste. GIS data and analysis are also used to predict and monitor flood hazard zones and provide basin-wide regional analysis.
  - ***Science, Monitoring and Data Management*** – Water quality, hydrologic assessment and analysis. Coordination with various data management and field activities to ensure efficient access to all relevant spatial data.
  - ***Office of Rural and Resource Programs*** – Data development, analysis, and mapping and application development for programs including agriculture, forestry, resource protection incentives, noxious weeds mitigation, natural lands management, and basin and lakes stewardship programs.
  - ***Stormwater Services*** – GIS supports service delivery analysis, drainage investigation, and inspection services. Regulation, compliance, and NPDES permit compliance are also supported.
  - ***Capital Projects and Open Space Acquisitions*** – GIS is used to depict and analyze proposed acquisitions, and provide ecological and surface water engineering services.
  - ***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.

4.8.2 Planned Project Activity and New Projects

Name	**King County Software Migration**
Description	The process of converting data to the new ArcGIS data formats. Nearly all of the data that will reside on the KCGIS Spatial Data Warehouse have been migrated. The efforts for 2007 will primarily focus on converting agency (DNRPLIB) data to SDE format.
Interdependencies	The KCGIS Center is leading this effort.
Status	In progress.
Target	2007
Activity	Convert spatial data to SDE format.

Name	**Shoreline Master Program**
Description	The SMP will result in a draft proposal to characterize and designate King County's shorelines of the state and draft shoreline master program policies.
Interdependencies	This effort is funded by a grant from the Washington Department of Ecology.
Status	In progress.
Target	2007/2008
Activity	▪ Collect and organize existing GIS datasets needed for analyses. ▪ Collate, organize and reconcile databases. ▪ Document data sources. ▪ Assess data quality and identify data gaps. ▪ Conduct analyses as directed by SMP science workgroup. ▪ Create maps as needed. ▪ Develop a new *iMAP* map set and Web application that will use ArcWeb Services. This application will include database searches that will interact with the map services and generate reports that would appear more like a Web page than an application.

Name	**Lake Washington General Investigation (LWGI)**
Description	Mapping and data development for proposed restoration sites. Needed for preparation of a planning level appraisal and becomes an exhibit to the Army Corp of Engineers (ACOE) Real Estate Plan.
Interdependencies	This is a joint effort with U.S. Army Corp of Engineers.

Status	In progress.
Target	Started March 2005, completion 2007
Activity	▪ Create personal geodatabase for ACOE transfer of data. Create missing datasets. ▪ Produce maps and design map template to depict project area, proposed site features, parcel information, access and parcels required to support the project.

Name	**ArcIMS Developers Workgroup**
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, 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, and Snoqualmie Riparian Photo Viewer applications.
Interdependencies	The KCGIS Center is leading this effort.
Status	In progress.
Target	Ongoing
Activity	▪ Participate in the workgroup to set policies and best practices, as well as to share development ideas and expertise. ▪ Develop custom programming for the general *iMAP* interface as assigned by the workgroup. ▪ Assist in conducting usability studies or focus groups.

Name	**Green River Normative Flows Study**
Description	Determine instream flows required to support salmon and maintain watershed health.
Interdependencies	DNRP/WLRD/Watershed and Ecological Assessment is leading this project.
Status	In progress.
Target	2006
Activity	• Orthorectify and mosaic aerial photographs of the Middle Green River for various years from 1936 to 1995. • Analysis of channel occupation and vegetation changes. • Provide technical support for data collection and database design.

4.8.3 Data Enhancement and Development

Name	**King County Land Cover**
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	Planned.
Target	2007, repeat at intervals to be defined
Activity	• Preprocess imagery as required. • Define land cover classification schema in consultation with DNRP/WLRD and other interested county staff. • Apply land cover classification schema. • Accuracy assessment.

4.8.4 Application Enhancement and Development

Name	**Groundwater Data Search**
Description	Develop additional search pages and functionality in this application to allow users to more fully query the Groundwater Protection Program Database.
Interdependencies	May require additional development or modification of the existing Groundwater Protection Program Database.
Status	Phase II work planned for early 2007.
Target	2007
Activity	▪ Add new water level query page. ▪ Add new water quality query page. ▪ Enable groups of groundwater source selections from *iMAP* to be sent and processed by the application to return a summary table of available data. ▪ Explore the possibility of a dedicated *iMAP* tool to connect to the existing application. ▪ Update database, resulting GIS layers periodically.

Name	**WRIA 9 Projects**
Description	Improve the method to locate projects in the GIS data layer that are the subject of this *iMAP* map set. Currently projects are located by using PINs, but this is unsatisfactory for many stream related projects. Switch to using coordinate locations

	as captured either through GPS or *iMAP*.
Interdependencies	Will require the development of a new routine in Python as part of the *PostRep* group of scripts which have not yet been completed.
Status	Planned work for 2007.
Target	2007
Activity	▪ Develop Python script to connect to a database table and create a GIS layer using coordinate data in the database table. ▪ Generalize the specific script developed for this particular instance to be functional within the *PostRep* routines for particular types of user selected tables.

Name	**Mitigation Reserves**
Description	Create a new application that will assist users in finding receiving sites that meet their sending site characteristics. This application will assist in tracking and matching sites from DDES that have off-site mitigation needs with ecological sites (natural lands) that need restoration work done.
Interdependencies	Requires management approval of methodology.
Status	Pilot project 1st quarter 2007.
Target	Completion late 2007 or early 2008
Activity	▪ Develop listing of sending and receiving sites and create GIS layer. ▪ Develop user interface to assist in selecting appropriate sites. ▪ Develop web application with integrated *iMAP* mapping functionality. ▪ Develop and design database for tracking sites. ▪ Develop routines/models for periodic GIS data updates.

4.8.5 Hardware, Software, Database, and Licensing Changes

- None planned.

4.8.6 Staffing Changes

- None planned.

4.8.7 Other Changes

- None planned.

4.9 DNRP – Parks and Recreation Division

4.9.1 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 three primary business functions: facility and site maintenance, recreation and event services, and program development and land management. Facility and site maintenance includes maintaining a safe and inviting parks environment, as well as managing open space and natural areas. Recreation and event services involves providing primary recreation services for residents in unincorporated areas of King County and also providing 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.
- The Parks and Recreation Division is comprised of five operational units: the Administrative and Financial Services Section, the Capital Planning and Land Management Section, the Marketing and Economic Development Section, the Parks Resource Section, and the Regional Parks, Pools and Recreation Section. GIS support is provided to all of these units, as well as to the Division Director's Office, by an allocation of 1.25 FTE. Work assignments are shared among three professional GIS analysts, who are part of the group of GIS analysts 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 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. A large number of requests are also handled on behalf of managers and staff working in outlying administrative offices or individual parks, such as Marymoor Park and Cougar Mountain Regional Wildland Park. These include maps and reports used for a variety of planning, management, and maintenance purposes.
- As a relatively small program, Parks GIS must conduct 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. As the products and services of Parks GIS demand the use of increasingly 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 have historically been open, approachable, and very supportive of the needs of Parks GIS. The dependency in this case is one of availability to 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 more narrowly focused and specialized than that of many of the larger county departments and agencies. As a result, the Parks GIS Program also has a relatively narrow focus and a somewhat limited role in the overall KCGIS enterprise. There is a moderate amount of interaction with the other DNRP divisions, particularly Water and Land Resources, but little involvement in the activities of GIS programs in other departments. Parks GIS diligently maintains the enterprise data layers for which it has responsibility and is an

active participant in the work of the DNRP Matrixed Services Unit. It also maintains active representation on the KCGIS Technical Committee and supports the initiatives and operations of that group.

4.9.2 Planned Project Activity and New Projects

Name	**REPMS Customization for Parks**
Description	Development and integration of supplemental data and custom query/display tools with the Real Estate Portfolio Management System. These data and tools will enable Parks managers and staff to locate, retrieve, display, and analyze detailed current and historic property-related information concerning the division's parks, trails, and facilities.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse, the DNRP GIS data server, and ArcGIS 9.x software. Coordination with, and assistance from, the REPMS project team on development, integration, and testing.
Status	In progress.
Target	2007 – End of 3rd Quarter
Activity	▪ Determine the specific data and query/display requirements for Parks which are beyond the scope of the REPMS design. ▪ Design the supplemental database and link it to the main REPMS database and to other data as necessary. ▪ Populate the supplemental database with the required property-related information, using both existing Parks-maintained data and additional data as necessary. ▪ Design and develop the custom query/display tools. Test and refine as necessary to ensure reliable operation and complete compliance with requirements. ▪ Deploy the custom tools and link them with the supplemental database, the main REPMS database, and other data as necessary. ▪ Install the custom tools on the appropriate Parks or KCGIS Center server. Ensure user access to the supplemental database, the main REPMS database, and other data as necessary. ▪ Train users on the supplemental database and custom tools. Provide follow-on support and problem resolution as necessary.

4.9.3 Data Enhancement and Development

Name	**MASTRAIL - Master Trails Database**
Description	Development and maintenance of a master trails database which will include all current and proposed trails within King County. Trails data maintained by Parks will be supplemented with data acquired from municipalities, state and federal agencies, and other public and private organizations which maintain recreational trails. A master trails database of this type will support the Division's planning needs by helping to ensure that proposals for new trails and improvements to existing trails

	are planned with as much knowledge as possible about the overall network of trails in the county.
Interdependencies	Availability of suitable trails data from non-King County jurisdictions and agencies. Reliable operation and availability of the KCGIS Spatial Data Warehouse, the DNRP GIS data server, and ArcGIS 9.x software.
Status	Definition of database requirements and assessment of existing available data are both in progress.
Target	2007 – End of 4th Quarter, for completion of an initial version of a comprehensive trails database. Subsequent maintenance will be on an ongoing basis.
Activity	▪ Develop an initial master trails database template, including all necessary trail characteristics and attributes. ▪ Review and refine this template to create the final database design. ▪ Populate the new database with all King County and non-King County trails data already available and suitable for inclusion. ▪ Contact non-King County jurisdictions and agencies to obtain additional trails data needed to make the database as comprehensive as possible. ▪ Develop and implement a plan for ongoing coordination with non-King County jurisdictions and agencies to obtain updated and expanded trails data whenever they become available. Integrate these data into the database whenever they are received.

4.9.4 Application Enhancement and Development

Name	***Park Info*** / ***Park Locator*** / ***ParkView*** **Application Replacement**
Description	Development of new versions of the existing *Park Info*, *Park Locator*, and *ParkView* applications which will be compatible with the ArcGIS 9.2 environment. These will employ the full range of capabilities and functionality in ArcGIS 9.2 to provide improved and expanded query, display, and mapping capabilities for managers and staff of both Parks and the Facilities Management Division (FMD) of DES, as well as for the general public. This project will be coordinated with similar application replacement projects being carried out by KCGIS Center Enterprise Services staff.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse and ArcGIS 9.2 software. Availability of design and development assistance from KCGIS Center Enterprise Services staff.
Status	On hold, pending completion of higher-priority division projects.
Target	2007 – End of 4th Quarter
Activity	▪ Identify application requirements for the new versions of *Park Info*, *Park Locator*, and *ParkView*. ▪ Write the new versions of *Park Info*, *Park Locator*, and *ParkView*, addressing all identified application requirements.

	▪ Test each of the new applications using all of the Parks geodatabases, as well as other enterprise data layers typically of interest to Parks and FMD users. ▪ Install the new applications on the appropriate Parks or KCGIS Center server and provide any necessary training and technical support to users.

Name	**ArcGIS 9.2 Production Mapping Application**
Description	Development of a new mapping application within the ArcGIS 9.2 environment to replace existing AMLs used for generating standard and custom map products. This will enable quick, efficient production of the maps which are most often requested by staff from Parks and other county agencies, as well as quicker, more efficient design and production of custom maps.
Interdependencies	Reliable operation and availability of ArcGIS 9.2 and associated application development software.
Status	On hold, pending completion of higher-priority division projects.
Target	2007 – End of 3rd Quarter
Activity	▪ Identify all existing and anticipated standard and custom maps which will be generated using the new mapping application. ▪ Develop new mapping application, providing improved mapping capabilities and user flexibility, as compared to the existing AMLs. ▪ Test new application to ensure consistent, reliable operation. ▪ Install new application on the appropriate Parks or KCGIS Center server and remove all of the obsolete AMLs from all locations in which they were active. ▪ Train users on the new mapping application. Provide follow-on support and problem resolution as necessary.

4.9.5 Hardware, Software, Database, and Licensing Changes

- None planned.

4.9.6 Staffing Changes

- GIS matrixed staff support was increased from 1.0 FTE for 2006 to 1.25 FTE for 2007.

4.9.7 Other Changes

- None planned.

4.10 DNRP – Solid Waste Division

4.10.1 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 six operational units: the Engineering Services Section, the Finance and Administration Section, the Landfill/Shop Operations Section, the Planning Services Unit, the Recycling and Environmental Services Section, and the Transfer/Transport Operations 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. Work assignments are shared among two professional GIS analysts, who are part of the group of GIS analysts 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 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 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. A small but growing number of requests are also handled for managers and staff working at outlying 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 primary strategic initiative for Solid Waste GIS during 2007 is continued outreach to the division to ensure awareness of, and access to, GIS support for all staff and programs which can benefit from its use. This outreach effort is particularly focused on the managers and supervisors at the eight transfer stations and the Cedar Hills Regional Landfill, whose operational environment and project needs differ from those at the division’s administrative offices in Seattle.
- As a relatively small program, Solid Waste GIS must conduct 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 not currently the steward of any 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. As the products and services of Solid Waste GIS demand the use of increasingly 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 have historically been open, approachable, and very supportive of the needs of Solid Waste GIS. The dependency in this case is one of availability to 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 both newer and smaller than most other county GIS programs, and continues to focus primarily on growing its clientele and providing division managers and staff with effective, high-quality products and services. As a result, it has to date had a somewhat limited role in the overall KCGIS enterprise. There is a moderate amount of interaction with the other DNRP divisions, primarily through the work of the DNRP Matrixed Services Unit, but there is relatively little involvement in the activities of GIS programs in other departments. Solid Waste GIS also maintains active representation on the KCGIS Technical Committee and supports the initiatives and operations of that group.

4.10.2 Planned Project Activity and New Projects

Name	**Cedar Hills Landfill Complaint Tracking and Mapping**
Description	A new 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 set of new data entry screens 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 9.x software.
Status	On hold, pending completion of higher-priority Division projects.
Target	2007 – End of 4th Quarter
Activity	▪ Complete definition of system requirements. ▪ Design, test, refine, and deploy standard complaint data entry screens. ▪ Design, test, refine, and populate complaint tracking database. ▪ Train operators on use of data entry screens and update procedures. ▪ Develop set of standard maps and reports for data display and analysis.

Name	**Illegal Dumping and Abandoned Vehicle Tracking, Mapping, and Analysis**
Description	Development of an automated system for entering and processing illegal dumping complaints and reports of abandoned vehicles in a spatially-referenced database. Planned work includes database design and development, creation of a standard data entry interface, and automated processes for map creation and data analysis.
Interdependencies	Reliable operation and availability of the DNRP GIS data server and ArcGIS 9.x software.
Status	On hold, pending assessment of existing system elements and determination of remaining work necessary to develop missing elements and integrate all of the pieces into a complete system.
Target	2007 – End of 3rd Quarter

Activity	▪ Complete assessment of existing system elements and determination of remaining development and integration work necessary to complete the system. Assess additional requirements related to locating and disposing of abandoned vehicles. ▪ Design, test, and implement database refinements. ▪ Design, test, refine, and populate abandoned vehicle database. ▪ Design, test, refine, and implement standard data entry interface. ▪ Complete needs assessment and definition of system requirements for automated map creation and data analysis applications. ▪ Design, test, refine, and deploy automated map creation and data analysis applications. ▪ Provide training as necessary to division staff.

Name	**New Transfer Station Siting Analysis and Mapping**
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 will be 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 2007. 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 9.x software.
Status	On hold, pending direction to proceed from division management.
Target	2007 – End of 4th Quarter
Activity	▪ Conduct site analysis and selection, based on criteria established by division and project managers. ▪ Design and produce maps and reports illustrating and describing suitable candidate sites.

4.10.3 Data Enhancement and Development

Name	**Address Data Development for Targeted Mailings**
Description	Development of detailed address data for populated areas of King County based on US Postal Service mail carrier routes. An application will be developed to process monthly updates of tabular carrier route data and generate a spatial layer of the areas covered by each carrier route. This spatial layer will be maintained by SWD GIS staff on an ongoing basis, and will be linked to the KCGIS parcel layer and KCA-maintained parcel attribute data. These developments will enable address searches and compilation of mailing lists which focus on specific areas of the county

	which the division has targeted for distribution of mass mailings of educational and outreach materials, as well as legally-required notifications to property owners.
Interdependencies	Availability of US Postal Service monthly updates of tabular carrier route data. Reliable operation and availability of the KCGIS Spatial Data Warehouse, the DNRP GIS data server, and ArcGIS 9.x software. Coordination with, and assistance from, Client Services and Enterprise Services staff on development, testing, and data linkages.
Status	In progress.
Target	2007 – End of 1st Quarter, for development and testing of the data processing application, and for completion of the initial version of the carrier route spatial data layer. Subsequent data maintenance will be on an ongoing basis.
Activity	▪ Determine the process necessary to convert tabular carrier route data into a spatial data layer. Determine the preliminary design for the spatial data layer. ▪ Develop and test an application to automate this processing, using a sample set of carrier routes within specific zip codes. Refine the application as necessary to achieve consistent, reliable performance. ▪ Process tabular carrier route data covering the entire county to generate the initial version of the spatial data layer. Revise the design of the spatial data layer as necessary. Initiate ongoing maintenance of the spatial data layer on a to-be-determined update frequency. ▪ Establish all necessary links to the KCGIS parcel layer and KCA-maintained parcel attribute data to enable address searches and compilation of mailing lists focusing on specific areas. Test all links to ensure consistent, reliable operation. ▪ Provide training and technical support as necessary to SWD GIS Analysts.

Name	**HAZUS-Related Data Development**
Description	Identification, analysis, and mapping of HAZUS-related data layers for use in SWD disaster response planning. These data will be used to identify: 1) Areas of high, medium, and low risk for large volumes of debris generation from earthquakes, windstorms, and other major disasters; 2) Suitable sites for temporary disposition of disaster-generated debris; 3) Suitable sites for permanent disposition of disaster-generated debris; and 4) Availability of infrastructure (e.g., roads and bridges) in adequate post-disaster condition to be usable for transporting large volumes of debris to disposition 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; 3) Structure type and density; and 4) Forest species 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 9.x software.

Status	In progress.
Target	2007 – End of 4th Quarter
Activity	▪ Complete research into the adequacy of available data for calculating debris volumes and the applicability of the HAZUS modeling software. ▪ Acquire all suitable available data for: 1) Risk levels for damage and debris generation; 2) Structure type and density; and 3) Forest species and density. ▪ Conduct initial modeling of data for areas of highest anticipated risk of high-volume debris generation. Evaluate validity of results. Determine whether to proceed with additional modeling runs. ▪ Conduct additional modeling as appropriate for all areas for which adequate suitable data have been acquired. ▪ Estimate debris volumes likely to be generated for all areas modeled. ▪ Establish capacity criteria for sites needed for temporary and permanent disposition of disaster-generated debris, using these volume estimates. ▪ Conduct site analysis and selection, based on these capacity criteria. Refine criteria and re-run site analysis and selection as necessary. ▪ Design and produce maps and reports illustrating and describing suitable candidate sites.

4.10.4 Application Enhancement and Development

Name	**ArcGIS 9.2 Web Mapping Application Development**
Description	Design, develop, and implement ArcGIS 9.2-based Web mapping applications to replace existing SWD Web mapping services for garage/yard sales, reusable material exchange sites, and King County-operated transfer stations.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse, the DNRP GIS data server, and ArcGIS 9.2 software.
Status	On hold, pending review of the existing SWD Web mapping services and evaluation of ArcGIS 9.2's tools and capabilities for developing satisfactory replacements.
Target	2007 – End of 4th Quarter
Activity	▪ Review capabilities and limitations of the current Web mapping applications and develop a list of necessary and desirable improvements for each. ▪ Design and develop the suite of new mapping applications in the ArcGIS 9.2 environment, incorporating all possible improvements identified for each. ▪ Test, refine, and implement each of the new mapping applications. ▪ Provide training and technical support as necessary.

4.10.5 Hardware, Software, Database, and Licensing Changes

- None planned.

4.10.6 Staffing Changes

- None planned.

4.10.7 Other Changes

- None planned.

4.11 Department of Public Health

4.11.1 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. Three divisions are using GIS in support of their business: Environmental Health (EH), Epidemiology, Planning and Evaluation (EPE), and Emergency Medical Services (EMS). The department also does not have any person with full-time GIS responsibilities. Overall, there are three employees who are using GIS on almost an everyday basis (power users) and another nine people who have ArcGIS or ArcView installed on their desktops.
- Listed below are the business functions within the department that use or plan to use GIS:
    - ***Environmental Health (EH)*** has been using GIS software for several years. One staff member does the bulk of GIS tasks in EH at this time. Several staff use GIS on an occasional basis, and several more access information via the KCGIS Center Internet mapping sites (*iMAP* and *Parcel Viewer*). The division is using the KCGIS Spatial Data Warehouse to access geographic data.
    - Until recently, ***Epidemiology, Planning and Evaluation (EPE)*** has used GIS primarily for creating static thematic maps to display data on health events in King County and Washington State. EPE receives requests for these descriptive maps from other Health Department units that have no GIS capability of their own, and from community, research and health care organizations and the general public. EPE 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. In 2006 funding for GIS related activities was cut by 50%. The division is using the KCGIS Spatial Data Warehouse to access geographic data.
    - ***Emergency Medical Services (EMS)*** is utilizing GIS capabilities to produce timely thematic maps for the customers (fire departments, paramedic services) as well as to perform quality control, data analyses and planning. The requests for maps are generated by EMS staff, research organizations, hospitals and general public. 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 there is one person in EMS using GIS on a regular basis and another for occasional specific projects. The division is using the KCGIS Spatial Data Warehouse to access geographic data.

4.11.2 Planned Project Activity and New Projects

Name	**EH – OnSite System AsBuilt Image Connection**
Description	Provides for accessing AsBuilt Images through *iMAP* 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 AsBuilt Image available is

	ready. Could provide this list to *iMAP* now to provide this bit of information to the public.
Target	Some time in 2007
Activity	▪ Need to get the imaging system to provide the images outside their proprietary database. ▪ In the process of specifying the needs for the development of the connection system.

Name	**EH – Small Water Systems**
Description	EH provides services to Group B water systems (small systems with 2 to 15 connections). EH has a database that keeps well locations, connected parcels, system status, testing results, etc. EH would like to share this data with other KC agencies.
Interdependencies	EH database (Envision). KCGIS Spatial Date Warehouse (SDE and shapefile library).
Status	Currently well locations are getting their GPS coordinates updated. Most of EH database is up to date and ready for sharing.
Target	2007
Activity	▪ Create, update and maintain small water system data on KCGIS servers. ▪ Provide this information on *iMAP* and *Parcel Viewer*.

Name	**EH – Permitted Food Service Facility Locations Mapped**
Description	EH database (Envision) contains records of permitted food service facilities. Locations are not mapped.
Interdependencies	Internal EH process (at this time).
Status	As time allows locations to be updated by parcel number (at least), latitude and longitude of either parcel centroid, or building centroid using postal service building point shapefile.
Target	2007
Activity	▪ Work on the mapping of these sites over the next several months.

4.11.3 Data Enhancement and Development

- None planned.

4.11.4 Application Enhancement and Development

- None planned.

4.11.5 Hardware, Software, Database, and Licensing Changes

- None planned.

4.11.6 Staffing Changes

- None planned.

4.11.7 Other Changes

- None planned.

4.12 DOT – Road Services Division

4.12.1 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 and numerous administrative tasks necessary to support these core businesses. 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 for unincorporated King County. GIS staff distributed across several Road Services offices provide user support, technical application support, spatial analysis, data collection and management, and map making services. In 2007 RSD will take steps to catalog and update division data resources in order to improve maintenance, reduce redundancy, and move appropriate datasets to the enterprise Spatial Data Warehouse. The division is also taking steps to update the systems used to collect, manage, and report operations data including asset inventories. Presently a steering committee is working to investigate existing methods, assess needs, and investigate potential alternatives under the acronym RCAMM – Roads Comprehensive Asset Management and Maintenance System.
- The RSD staff has office space and field operations in multiple locations, including two floors of the King Street Center, multiple buildings at the Renton Maintenance Complex, and 12 satellite maintenance offices spread throughout King County. Each unit has unique and specific business needs, while working toward the common division goal of safe and efficient transportation and mobility. Consequently, staffs utilizing GIS are also spread throughout the division to better meet these specific business needs.

  The decentralized structure of Road Services' GIS work requires division-wide coordination. The continuing development and implementation of GIS-related activities is a crucial part in improving the division's efficiency. RSD staff is responsible for data maintenance and development, data analysis, applications support, and internal work requests that can originate outside of their work unit.
- RSD GIS professionals provide primary technical support to end-users and systems. They are well trained and highly knowledgeable in GIS and specific department and division-level databases, applications and business needs. In addition to supporting existing users, they are responsible for accommodating new users and business systems that require access to geographic information. The GIS professionals also identify potential future users that would benefit from access to such geographic data. GIS professionals are largely responsible for maintenance of agency data layers (e.g., County Road System Inventory), development of customized end user applications, production of sophisticated analysis and map products, and support of out-of-the-box client applications that provide access to data and simple analysis tools. GIS staff provide technical expertise, business expertise, low level training, user support, vendor software installation, and maintenance and business application support. GIS professionals are also end-users themselves, often being called upon for sophisticated data analyses or map products that are beyond the expertise of other end-users.

  The Division's GIS Technical Committee representation is a shared effort, coordinated between the Division Information Technology Coordinator and the Maintenance Section Technology Unit Supervisor.

  GIS coordination in the RSD is accomplished through committee structures led by the Division Information Technology Coordinator. The Division Information Technology Coordinator is a member of the RSD IT Coordination Team and reports to the division's Budget and Technology Manager. The Budget and Technology Manager reports to the Division Director. The mission of the IT Coordination Team is to facilitate division-wide IT coordination, development, and implementation in the areas of GIS, Web development, database management, infrastructure and

new technology in order to improve division efficiency and reduce unnecessary redundancy. A primary work item assigned to the Division Information Technology Coordinator is to coordinate work within the division's decentralized GIS network.

The RSD GIS committee meets monthly. Coordination activities currently underway include development of the annual division-wide GIS work program, metadata library improvements, data inventory, GIS resource identification, licensing standardization, and equipment standardization. The Roads GIS committee also coordinates hardware purchases, data development, application development resources, software support, software licensing compliance, and hardware support.

Section GIS staff support end-users with GIS software applications, data development, maintenance of GIS data, response to GIS-related work and map requests. Currently there are approximately 30 GIS end-users in the RSD.

Customers and potential customers obtain GIS services from RSD staff by phone, email, or in-person. Once a request is received the appropriate staff member reviews the request and either forwards it to the appropriate section GIS member, or fulfills the request based on their knowledge to complete the task, workload and priority.

New users in the division that are identified as potential GIS users are added to the Roads ArcView group. Network versions of ArcView are then installed on their desktop. Appropriate section staff provides an overview of available King County data and then ArcView training is set up with the KCGIS Center.

Existing users usually require ArcView application assistance, troubleshooting server connections, clarification on data usage, and plotting assistance. Most of these users occasionally use ArcView to accomplish their own unique project related tasks.

Non-GIS users in the division seldom need access to data or applications, but are often in need of map production or analysis to support requests from the council, department directors, managers, supervisors, project managers, field and office staff, and the public.

RSD managers are frequently supported by RSD GIS staff. They are usually in need of data analysis and/or project specific location maps. This work is done on a project-by-project basis.

Expertise in transportation and specific RSD programs and business systems enable the RSD transportation professionals in Administration, Traffic Engineering, Maintenance, Engineering Services (including Survey Services), and CIP and Planning sections to support and efficiently deliver quality GIS products and applications specific to RSD business. Listed below are some of the business functions within the Division that rely on Geographic Information.

- ***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 the King County 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. Includes snow and ice removal, removal of downed trees, landslide cleanup, flood response activities, and emergency road repair.
- ***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 geographical data regarding waterways habitat and storm water. Compliance with other federal environmental regulations, such as Army Corps of Engineer 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 geographical 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.
- ***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).
- ***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, guardrails, signs, and pavement markings; traffic impact (of development) 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.

4.12.2 Planned Project Activity and New Projects

Name	***iMAP*** **Transportation Needs Map Set**
Description	Build an interactive Transportation Needs Internet map portal. Citizens, council staff, WSDOT, cities and King County employees will be able to quickly see proposed improvements in unincorporated King County, proposed scope of projects and priority of these improvements. We will provide structured reports and queries, map

	views based on the TNR index and the availability to proportionately zoom in and out of the map set. Defined TNR attributes will be available by selecting the project or selecting a group of projects along a corridor.
Interdependencies	Reliable operation and availability of the KCGIS Spatial Data Warehouse.
Status	Nov 2006 - Initiation and planning have been completed. Functional specs and design are currently taking place.
Target	2007 – End of first quarter
Activity	▪ Continue to utilize the IT Project Management Framework throughout this project.

Name	**Road Services Division Web Mapping Tool**
Description	This is a project to allow RSD workers to map and retrieve incident locations over the Web.
Interdependencies	Undetermined at this time.
Status	Tentative.
Target	Year end 2007
Activity	▪ Planning.

4.12.3 Data Enhancement and Development

Name	**TNET Centerline Improvements**
Description	RSD has assumed responsibility for maintaining the road centerline geography in unincorporated King County and in cooperation with DOT Transit for those cities that do not actively participate in the TNET consortium. This includes improving the spatial accuracy of existing line work based upon 2002 higher accuracy imagery and adding new line work as new roads are developed.
Interdependencies	This work is dependent upon TNET being functional.
Status	Editing capabilities are currently restricted by necessary TNET development activities.
Target	This is a long-term improvement program. Principle improvements are expected to be completed about mid 2008 if editing can resume in January 2007 and division resources remain available.
Activity	▪ Editing and updating the centerlines for unincorporated King County with TNET extension using the best available aerial photography. ▪ Add new roads as they are identified

4.12.4 Application Enhancement and Development

- None planned for 2007.

4.12.5 Hardware, Software, Database, and Licensing Changes

- The division is planning on implementing SDE in 2007 depending on license availability from the KCGIS Center.
- The division purchased another copy of ArcEditor in late October 2006 and plans to purchase another early in 2007.
- Two additional ArcView 9.x floating licenses will be added for 2007.

4.12.6 Staffing Changes

- Plans for 2007 staff changes are unresolved at this time.

4.12.7 Other Changes

- None planned.

4.13 DOT – Transit Division

4.13.1 Agency GIS Overview, Priorities, and Goals

- The mission of the Transit Division is to provide the best possible public transit services that get people on the bus and improve regional mobility and quality of life in King County. Within the division, the Information Technology Section houses Transit GIS. This section is responsible for a set of core Transit functions that ensure the daily operation of business systems necessary to run the transit system and guarantee the integration of technology projects into Transit's business process and operating environment (http://dot.metrokc.gov/mitts/mitthome/default.htm). The workgroups within the section form a comprehensive team for supporting Transit's information systems infrastructure. Within the section, the Transit GIS workgroup is focused on the day-to-day operational needs to provide the county with bus service. These include the ongoing maintenance of GIS data and applications necessary to support division, department, and county business needs. The Transit GIS workgroup represents the Transit Division focal point for all spatial services, data, applications, and support requests originating from within and from outside the division.
- GIS is an *enabling* technology, and Transit GIS' responsibility is to provide GIS users a healthy, functioning system, ensuring that the necessary infrastructure is in place and accessible for staff throughout the division to incorporate GIS tools and data into their workflows as required. This workgroup has a clear understanding of all Transit business functions, the geographic elements of these functions, and the best delivery mechanisms necessary to support them. These mechanisms include publication of spatial information in Transit corporate databases with other business data; development of specialized extensions to GIS vendor off-the-shelf 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 Transit Division 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, transit business expertise, training, transit map and data products, 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 transportation planners in the Road Services Division and DOT Director's Office. Also, Transit information systems projects often have geographic components necessitating GIS staff expertise. For the next several years, the highly visible On-board Systems, Radio Replacement, and Regional Fare Card capital projects have priority for the agency, and will continue to require occasional consulting from Transit GIS. 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.
- Transit GIS developed a process to support Public Data Requests. These requests have come from businesses such as Google and Microsoft as well as from individual citizens. The data requested is made available on an external secure HTTP site for anyone to access after signing a required disclaimer. The transit data is specific in nature and is intended to use in trip planning or "real time" bus location systems on the Web.
- In addition to Transit geographic business needs, new relationships will continue to be forged as the new Transportation Network (TNET) GIS Data Maintenance Initiative is deployed. 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. Transit GIS plays three pivotal roles in the TNET program:

- Maintain Transit specific pathways. Transit GIS participates in the TNET Program as other consortium partners 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 busway. Transit GIS 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. Finally, to achieve complete geographic coverage, Transit GIS has assumed the responsibility of maintaining 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. Transit GIS is responsible for managing the entire infrastructure of the master repository including the database, the software, developed applications, and hardware (including a separate test/development environment). 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. Transit GIS will also provide assistance to all participating agencies in the support of their respective agency environments.
- Coordinate the TNET Consortium. Transit GIS will serve 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.

Transit GIS provides support to TNET Consortium members through a group email monitored by Transit GIS Staff (TNET@metrokc.gov), a GIS Community forum hosted by the Washington chapter of URISA (http://waurisa.org/phpBB2/index.php), and an informational website hosted by the King County GIS Center (http://www.metrokc.gov/gis/Projects/TNET/TNET_main.htm). The KCGIS Center is regularly informed of Transit GIS' TNET Consortium activity so that the enterprise might benefit from those relationships. The new transportation network will not only increase the number of users supported by Transit GIS, but it will add users from non-King County agencies who will be accessing an important and highly-visible system. It will be an ongoing challenge for Transit GIS to prioritize support required by Transportation Network Consortium members and Transit business personnel.

- Members of Transit GIS 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 goal is to both convey King County Metro Transit's requirements and minimize any impacts to the agency in adopting these standards. Also, Transit GIS is involved in the development of a transportation database of location-based transportation data to use in GIS across the state of Washington (http://www.wsdot.wa.gov/mapsdata/TransFramework/default.htm). As part of this framework effort, King County Transit GIS is working closely with Pierce County and Washington State DOT on a pilot advisory team to develop a seamless multimodal transportation network between the two counties. King County will benefit from this project in its alignment of transportation network features along the county boundary supporting 911 service provision and regional transportation planning.

4.13.2 Planned Project Activity and New Projects

Name	**Transit GIS Migration**
Description	Migrate all users, data, and applications off UNIX and on to Wintel platform.
Interdependencies	Migration from UNIX, legacy ArcInfo, and the coverage format necessitates the KCGIS Center accepts shapefiles or geodatabases for enterprise library. (Resolved)
Status	In progress – All users and data migrated. Major applications migrated.
Target	2007
Activity	▪ Complete development and production deployment of remaining applications. ▪ Retire legacy applications and UNIX server.

Name	**TNET**
Description	Development of a new high-accuracy, multi-modal, current transportation network data layer, data maintenance application, and model for cooperative, distributed data maintenance with county departments and local jurisdictions.
Interdependencies	Coordination with external transportation network data maintainers will include the KCGIS Center. The Road Services Division, DDES, and E-911 Program Office are expected to be data maintainers.
Status	In progress.
Target	2007
Activity	▪ Deploy system (data, maintenance application, and connectivity technology) to consortium members.

4.13.3 Data Enhancement and Development

Name	**Landmarks/Points of Interest**
Description	Develop a single data maintenance procedure and data layer combining the landmarks data layer maintained by Transit and points of interest data layer maintained by the KCGIS Center.
Interdependencies	Coordination with the KCGIS Center and any other workgroups interested in these two data layers.
Status	Not started.
Target	2007
Activity	▪ Design data layer structure.

	▪ Identify data owners, users, and methodology for data maintenance. ▪ Train data maintainers. ▪ Implement.

4.13.4 Application Enhancement and Development

Name	**MoEmitter**
Description	This project will replace an existing application. This application allows Transit staff to manage the location and attributes of vehicle location emitters. This application was developed using MapObjects 1.0 and an early release of Visual Basic. To improve support, it needs to be updated to the latest technology and incorporated as a module of the GIS Toolbox alongside other similar Transit object maintenance modules.
Interdependencies	None.
Status	Not started.
Target	2007
Activity	▪ All project management and application development activity is expected to be completed in 2007.

Name	**Service Quality**
Description	This project will develop a new application. This application will support Transit Service Quality section's spatial business needs. Service Quality's primary responsibility is to provide 24-hour daily support and on-street supervision of Transit services. This includes response to transit emergencies and service disruptions, customer and employee assistance requests, adverse weather service management, short/long term route planning, construction impact mitigation, operator comfort station program (restroom) management, special event planning and response, Metro tunnel service management, and other service-related investigations and activities. Staff within service quality use GIS tools and data to assist in many of these functions.
Interdependencies	None.
Status	Started.
Target	2007
Activity	▪ Application scoping completed in 2005. All other project management and application development activity is expected to be completed in 2007.

Name	**Service Planning**

Description	This project will develop a new application. This application will support Transit Service Planning section's spatial business needs. Service planning refers to the determination of changes to transit services including types of service, routing, time periods, and frequency of operation. This function is also responsible for developing technical and policy analyses supporting longer-range transit planning efforts. GIS analytical tools and data are used to assist this function and are essential to create proposed alternatives for presentation to elected officials and communities to build consensus and support for proposals to change or add service.
Interdependencies	None.
Status	Not started.
Target	2007
Activity	▪ Scoping, requirements development, system design.

Name	**Transportation Map Set**
Description	This project will develop a transportation map set for the Internet.
Interdependencies	Coordination with the KCGIS Center and any other workgroups interested in a transportation map set.
Status	Not started.
Target	2007/2008
Activity	▪ We will work with the KCGIS Center to scope out the functionality for this map set and potentially start work in 2007.

4.13.5 Hardware, Software, Database, and Licensing Changes

- As part of a Transit IT section wide effort, Transit GIS servers will migrate to high performance Blade server technology in 2006/2007.

4.13.6 Staffing Changes

- Mike Berman was promoted to an acting supervisor position in June 2006 and is the supervisor for the GIS Team. Tamara Davis was promoted to an acting GIS Program Manager position in July of 2006. The GIS Team plans to hire in 2007 to backfill the vacancy created by Mike's promotion.

4.13.7 Other Changes

- A new relationship will be initiated with the GIS Center to provide on-call backup database services during Transit GIS primary DBA vacations and sick leave. This relationship is expected to be temporary until the section undergoes a reorganization in part intended to provide this function internally.

4.14 DOT – King County International Airport

4.14.1 Agency GIS Overview, Priorities, and Goals

- King County International Airport (KCIA) is operated as a division of King County's Transportation Department. The mission of KCIA is to support the economic vitality of the county, support the national air transportation system, encourage advanced technology, provide safe and continuous general aviation airport services to King County businesses and residents, and serve as a gateway to the region. The Airport supports commercial, corporate, cargo and military aviation, as well as general aviation and aviation manufacturing. 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 GIS Analyst is on staff to perform GIS tasks on Airport's GIS related projects. The GIS Analyst performs all GIS related functions and serves as the division's liaison with KCGIS.
- Listed below are the business functions within the division that use or plan to use GIS:
    - ***Administration, Planning and Property Management*** --The Airport or their consultants use GIS for analysis in plan development, environmental evaluations, program tracking and production of graphic materials. Property Management will use the newly developed Airport Information System (AIS) database for monitoring all leasing activity at the Airport and assisting in facility-based costing. A goal is to integrate AIS and GIS to provide easily accessible data for comprehensive planning and management activities.
    - ***Engineering and Environmental Management*** --This program provides and/or oversees engineering-related planning, design and construction management, and assures that the Airport system operates in an environmentally safe, efficient manner. The Airport uses both CAD and GIS to map and coordinate environmental data, design, and construct documents.
    - ***Maintenance*** -- Airport Maintenance maintains and repairs all airport facilities, including runways, taxiways and ramps, utilities, and structures. The Airport recently implemented MAXIMO, a leading asset, maintenance and facility management system. This system can be integrated with the Airport's GIS to provide spatial information for maintenance service of facility, airside, and inventory functions. The integration of the two systems will be analyzed after the basic work order and management functions of MAXIMO are completed.
    - ***Operations and Compliance*** -- This program 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), law enforcement, which is contracted from the King County Sheriff's Office. The Airport uses CAD and GIS to identify and track safety or security related items, including hazardous materials and emergency response information.
    - ***Noise Office and Sound Insulation Program --*** As the Airport's noise mitigation program is implemented, the Airport uses GIS to track and maintain sound insulation program participant data. The KCGIS Center will develop a real-time interactive map based on the program's participant database for internal use as a repository of all relevant information about every property within KCIA's noise contours of 65 dB and above. This information will not contain confidential homeowner information, but rather describe current status and progress of the Sound Insulation Program.

4.14.2 Planned Project Activity and New Projects

- None planned for 2007.

4.14.3 Data Enhancement and Development

Name	**Property Survey Data Conversion**
Description	Convert KCIA's Property Survey CAD layers to GIS shapefiles and develop geodatabase for KCIA's Lease Properties.
Interdependencies	KCGIS Center and KCDOT Roads.
Status	In progress. KCIA is currently waiting for the survey to be completed and finalized.
Target	2007
Activity	▪ To be determined.

4.14.4 Application Enhancement and Development

Name	**Sound Insulation Program Real-Time Interactive Map**
Description	KCGIS Center will develop a real-time interactive map based on the program's participant database, on the Airport's intranet website, as a repository of all relevant information about every property within KCIA's noise contours of 65 dB DNL and above. KCGIS Center will also develop a separate interactive map on the Internet for residents to check on their eligibility and obtain program status information.
Interdependencies	KCGIS Center.
Status	In planning phase.
Target	End of first quarter of 2007
Activity	▪ To be determined with KCGIS Center.

Name	**Airport Information System (AIS)**
Description	The AIS will be used to monitor all leasing activity and assist in facility-based costing. The Airport will work with KCGIS Center to evaluate and enhance current AIS functions to better suit the Airport's business practices.
Interdependencies	KCGIS Center.
Status	In progress.
Target	2007
Activity	▪ Review and evaluate current AIS functions and business practices for final implementation of the system.

4.14.5 Hardware, Software, Database, and Licensing Changes

- The Airport will be purchasing the ArcGIS Publisher extension to support the Sound Insulation Program Projects.

4.14.6 Staffing Changes

- None planned for 2007.

4.14.7 Other Changes

- None planned for 2007.

4.15 King County Sheriff's Office

4.15.1 Agency GIS Overview, Priorities, and Goals

- Within the King County Sheriff's Office (KCSO), the Research, Planning & Information Services Unit (RP&IS) of the Technical Services Division has primary responsibility for providing GIS services. RP&IS is a multidisciplinary unit with crime analysis being a key responsibility. RP&IS' 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 an important 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 Research, Planning & Information Services Unit of the KCSO Technical Services Division has no personnel with full-time GIS responsibilities, however, 4.0 RP&IS FTE's are proficient with ArcView 3.2 and use it on a regular basis to support all agency GIS-related requests. During 2007 unit personnel will migrate to ArcGIS 9.1 (ArcView) and use it as the primary tool for creating and completing GIS-related projects.
- The RP&IS supervisor coordinates all GIS activity, as well as performing a significant 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 ArcView 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 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 data maintenance.
- ***Priorities*** – Research, Planning & Information Services/Crime Analysis Unit personnel continue to utilize ST_ADDRESS as the primary 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 911 dispatching. A primary concern of the Sheriff's Office (which is voiced regularly at GIS Technical Committee meetings) is the lack of a definitive address file and an accurate/up-to-date street file. (In fact, problems with the current street file have negatively impacted the Sheriff's Office installation of a new Computer Aided Dispatch system.) It is hoped that the addressing/street file initiatives currently in progress (E-911 GPS Addressing Project and TNET) will result in products/data that will be timely and accurate.

4.15.2 Planned Project Activity and New Projects

- None planned.

4.15.3 Data Enhancement and Development

- None planned.

4.15.4 Application Enhancement and Development

- None planned.

4.15.5 Hardware, Software, Database, and Licensing Changes

- During mid 2006 updated ArcView 3.2 licenses to ArcGIS (ArcView) 9.1.

4.15.6 Staffing Changes

- None anticipated.

4.15.7 Other Changes

- None anticipated.

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 councilmembers 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-2006, the Council contracted with the King County GIS Center to begin conducting a GIS needs assessment for the Council with a goal for completion in late 2006 or early 2007. The reasons for conducting the analysis are as follows:
    - The Council's GIS technology platform is out of date. The rest of the county is in the process of migrating from one ESRI software package to another (from ArcInfo 7.x and ArcView 3.x to ArcGIS 9.x), and in the near future the version the Council is using will no longer be supported.
    - 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 councilmembers would benefit by having more information at their disposal when making policy decisions. The councilmembers' 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 needs assessment will guide the Council's future GIS development in a logical, prioritized, and cost effective manner and will consider how the Council can better utilize GIS in the future.

- Anticipated training needs for 2007 include initial courses in the latest version of ArcGIS 9.x for the GIS Coordinator and for one or two additional staff. Similar training may be necessary for other council staff based on the recommendations of the ongoing GIS needs assessment. The council pays for GIS training with resources from its general training fund.

4.16.2 Planned Project Activity and New Projects

Name	**GIS Needs Assessment and Development Plan**
Description	The KCGIS Center assessment will include a high-level inventory and evaluation of the Council's computer hardware, software, network, business data, database design, applications, staffing, and organization. The purpose of this assessment process is to aid in the development of a GIS conceptual design that maximizes use of KCC systems, data, and staff resources already available.
Interdependencies	This effort is facilitated by the KCGIS Center staff. Progress on this effort is dependant on available time of Council staff and KCGIS Center staff.
Status	In progress.
Target	Late 2006 – early 2007
Activity	▪ Project management. ▪ Assess and document current KCC GIS capability and business needs. ▪ Develop KCC GIS assessment and development action plan.

4.16.3 Data Enhancement and Development

- None planned at this time. This could change based on recommendations made in the GIS needs assessment.

4.16.4 Application Enhancement and Development

- None planned at this time. This could change based on recommendations made in the GIS needs assessment.

4.16.5 Hardware, Software, Database, and Licensing Changes

- The most likely change would be migration from one ESRI software package (ArcView 3.x) to another (ArcGIS 9.x) because failure to upgrade in the same manner as the rest of the county will result in the current software being unsupportable by the KCGIS Center.
- Other changes would be as recommended by the GIS needs assessment and approved by the Council.

4.16.6 Staffing Changes

- As recommended by the GIS needs assessment and approved by the Council

4.16.7 Other Changes

- As recommended by the GIS needs assessment and approved by the Council

4.17 Office of Management and Budget

4.17.1 Agency GIS Overview, Priorities, and Goals

- The Office of Management and Budget (OMB), often referred to as the "Budget Office," is a branch of the King County Executive Office. The Budget Office mission is to develop, administer and monitor the annual operating budget and capital improvement program, and perform related tasks. The Budget Office, with approximately 40 FTEs, provides broad budget-related policy and fiscal direction analysis for King County government. OMB also monitors compliance with the adopted Budget and performs related information functions.
- OMB operations require organizational flexibility to support major countywide priorities during preparation of the County Executive's proposed budget. For example, a key focus of the adopted 2007 budget is the Annexation Initiative to accelerate municipal annexation and incorporation of all defined Potential Annexation Areas (PAA's) within the urban growth area. This initiative will have a potentially profound impact on the future geographic organization of municipal services within King County. OMB has formed a Regional Governance section, which relies on GIS to support this initiative.
- Budget Office GIS activity supports a subset of specialized business functions for which GIS based maps and analysis can improve agency effectiveness. Staff to handle ad-hoc requests for GIS services are concentrated in the Budget Office Growth Information Team, reporting directly to the OMB Director. The Budget Office economist is also a trained GIS user.
- Business functions of the Budget Office include the following:
    - Operating Budget
    - Capital Improvement Program
    - Performance Monitoring
    - Regional Governance / Annexation Initiative
    - Growth Information Team
    - Economic Forecasting
- OMB's GIS work program is integrated into the Growth Information Team (GIT) work plan as support to all ongoing OMB activity. GIS is centered in the GIT because of the variety of products (Annual Growth Report, Benchmark Report, annexation support documents) and research/analysis responsibilities (demographics, growth management, buildable lands) of GIT that have a strong geographic analysis/mapping component. None of GIT's 3 FTE's has full time GIS responsibility, although one spends a majority of her time doing GIS work.
- The GIT supervisor is responsible for section activity, but most GIS work goes directly to the GIS Analyst, who prepares ad hoc maps, analysis, or GIS projects upon request by internal OMB staff. Requests for more complex services are referred to the KCGIS Center. OMB also develops PAA profile data and maintains buildable lands data, AGR maps, and residential plat record geocoding.
- OMB'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 2007 will be a challenging one for GIS in OMB. The Office's primary GIS analyst will focus on GIS analysis of land supply for the first half of the year. Ongoing GIS requirements and requests will be delayed or on hold. Further, there are significant needs for geographic information during 2007 that the Growth Information Team will not be able to provide. OMB 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

Name	**Buildable Lands – Land Supply Inventory / Land Capacity Inventory**
Description	Detailed inventory of vacant and potentially re-developable land in Urban-designated portions of unincorporated King County and possibly some cities. Limited measurement and analysis of capacity in Rural-designated areas.
Interdependencies	Depends on data and participation from DDES, DOT-Roads and the KCGIS Center.
Status	Mandated by RCW 36.70A.215 and partially supported by State grant.
Target	Need for data by March 2007; completion by August 2007.
Activity	▪ No new activities framed at this time.

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

- No changes anticipated in 2007.

4.17.6 Staffing Changes

- GIS in OMB has been reduced in scale during 2007. Our primary GIS analyst / GIS coordinator will focus on Buildable Lands until midyear, then proceed with essential GIS products including ad-hoc map requests. Other GIT staff have GIS training but are not experienced GIS analysts.

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. 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 three primary goals:
    - Eliminate homelessness in King County in 10 years.
    - Create alternatives to incarceration for youth and adults.
    - Build employment opportunities for low-income people and those with special needs.

  To support its mission and its stated goals, the department administers a budget of approximately $ 309 million (2007 proposed) 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)
    - Development Disabilities Division (DDD)
    - Mental Health, Chemical Abuse and Dependency Services (MHCADS)
    - 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, two other groups off the formal DCHS organization chart coordinate their efforts with DCHS:
    - The King County office of the Washington State University Extension Service (located administratively in DNRP Solid Waste Division) – attends Community Services Division management team meetings.
    - Unincorporated Area Councils – independent but staffed by DCHS personnel.
- GIS Program Organization: There is no designated DCHS GIS unit or program. DCHS management has designated the CSD Affordable Housing, Planning & Development Coordinator as the Department's KCGIS Technical Committee representative. The DCHS Technical Committee representative also 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 Challenges: The key challenge for the DCHS GIS program has been the lack of a comprehensive assessment of the business needs for GIS and an implementation plan to develop priority GIS tools and resources within the department. Another 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 these challenges, there is a small motivated cadre of GIS users who are working to raise awareness of the potential uses of GIS within DCHS. The department has a modest budget for outside GIS services and training.

- GIS Strategic Initiatives: In 2006 DCHS staff worked with KCGIS Center staff on a Business Needs Assessment and Development Plan. Scheduled for completion in early 2007, this report will educate a much wider base of potential GIS users and layout a GIS implementation plan within the financial and organizational capabilities of the department.
- DCHS GIS Coordination within KCGIS: The department's coordination within KCGIS will likely be limited to continued participation on the GIS Technical Committee, use of KCGIS data and application resources, annual coordination with KCGIS Center Client Services for production of maps, and possible future cooperative projects similar to the development of *CensusViewer*.

4.18.2 Planned Project Activity and New Projects

Name	**GIS Business Needs Assessment and Development Plan**
Description	DCHS requested that the KCGIS Center assess its current GIS development and business needs, and recommend a budget and action plan for logical, incremental development of GIS capability and ongoing operation and business use within the department.
Interdependencies	Completion of the plan requires review from the DCHS Director (in progress), and a final meeting of the DCHS workgroup (made up of representatives from each division) and KCGIS Center staff.
Status	Director review in progress with final meeting to be completed in early 2007.
Target	Early 2007
Activity	▪ Project management. ▪ Final meeting with work groups to finish plan.

4.18.3 Data Enhancement and Development

Name	**HCD Program Consolidated Database**
Description	Database will roll current stand alone systems for data collection from the HCD sections into a single program-wide resource. Data includes individual owner housing repair clients/projects, capital affordable housing projects, and capital community development projects. This database will be beneficial for proposed department-wide data extraction for departmental reporting
Interdependencies	Cross-program collaboration within HCD to develop database.
Status	Pending.
Target	Complete in 2007
Activity	▪ Database development and integration.

Name	**DCHS Data Integration Project (DIP)**
Description	Create a limited view into existing division/program databases via a conceptual data dashboard for essential departmental data needs. System to be able to extract key data from existing division/program databases, such as MHCADS Informix database and the HCD Programs MS SQL Server consolidated database, within proscribed state and federal guidelines for client confidentiality.
Interdependencies	Following state and federal guidelines to ensure client confidentiality.
Status	Still in research phase.
Target	Late 2007 or 2008
Activity	▪ Implement next steps to determine data that can be integrated.

Name	**OPD Phase II Database Enhancement**
Description	OPD maintains an Informix database with client intake information and assignment to one of four contracted public defense law firms. The enhancement will help OPD track case resolution status and case backlogs and will improve connectivity with contracted agencies.
Interdependencies	Primarily between OPD and contracted agencies – must be analyzed for appropriate data sharing with DCHS integration project.
Status	In planning stage.
Target	2008
Activity	▪ Research, planning and development.

Name	**MHCADS Database Enhancement**
Description	MHCADS maintains an Informix database with client-level service data that is protected by HIPPA and is aggregated to levels above the client level for public distribution. MHCADS would like to be able to capture and manipulate other sources of data that could improve service delivery and help control costs, such as Seattle Police Department data on patrol activity concerning inebriated persons.
Interdependencies	Must be analyzed for appropriate data sharing with DCHS integration project.
Status	In planning stage.
Target	2008
Activity	▪ Research, planning and development.

4.18.4 Application Enhancement and Development

- None planned at this time but may change as the department works to implement the DCHS GIS Needs Assessment into the business plan.

4.18.5 Hardware, Software, Database, and Licensing Changes

- Will be evaluated as we integrate the DCHS GIS Needs Assessment into the business plan.

4.18.6 Staffing Changes

- Part-time GIS Specialist position in CSD/HCD was terminated in 2006 Budget.

4.18.7 Other Changes

- Will be evaluated as we integrate the DCHS GIS Needs Assessment into the business plan.

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 direction	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 inventory, assessment, and coordination	IT Project Mgr. II	FTE	100
GIS Application Developer	KingStat technical implementation and support	GIS Spec. – Master	FTE	100
GIS Application Developer	Web and front-end applications	GIS Spec. – Master	FTE	100
GIS Application Developer	Desktop applications, website management	GIS Spec. – Master	FTE	100
System Administrator	System administration, NT and UNIX	LAN Admin. – Master	FTE	100
GIS Database Administrator	Database administration Oracle, SQL Server, ArcSDE	GIS Spec. – Senior	FTE	100
GIS Programmer/Analyst	Cadastral tools development / Matrix support to Assessments	GIS Spec. – Senior	FTE	50#
GIS Analyst	Cadastral data coordination	GIS Spec. – Journey	FTE	100
Client Services Manager	Client Services program management	IT Supervisor I	FTE	100
Project Manager	Client Services project coordination	IT Project Mgr. I	FTE	100
GIS Analyst	Publication cartography, Web site design	GIS Spec. – Senior	FTE	100
GIS Training Coordinator	GIS training services	GIS Spec. – Journey	FTE	100
GIS Analyst	Client Services project support (filled as work load warrants)	TBD	FTE (Vacant)	100
GIS Analyst	Matrix support to Assessments / Client Services project support	GIS Spec. – Journey	FTE	50#
GIS Analyst	Matrix support to Transit	GIS Spec. – Journey	FTE	#
GIS Analyst	Matrix support to RSD	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 WTD	GIS Spec. – Journey	FTE	#
GIS Analyst	Matrix support to WTD / Client Services project support	GIS Spec. – Journey	FTE	70#
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 WLRD	GIS Spec. – Journey	FTE	#
GIS Analyst	Matrix support to PRD / Client Services project support	GIS Spec. – Journey	FTE	75#
GIS Analyst	Matrix support to PRD and SWD	GIS Spec. – Senior	FTE	#
GIS Analyst	Matrix support to PRD and SWD	GIS Spec. – Journey	FTE	#

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

5.1.2 Department of Assessments

Working Title	Focus	Class	Status	% GIS
GIS Specialist	GIS	GIS Spec. - Senior	FTE	95
Mapping Supervisor	Supervisor of mapping staff	Mapping Supervisor	FTE	75
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
Cartographer	Cadastral maintenance	GIS Spec. - Entry	FTE	95
Cartographer	Cadastral maintenance	GIS Spec. - Entry	FTE	95
Cartographer	Cadastral maintenance	GIS Spec. - Entry	FTE	95
GIS Analyst§	Cadastral QC, application programming	GIS Spec. - Senior		100#
Various – Appraisers, programmers	Analysis, implementation and application development	Various	FTE	⊗

§ Matrixed from KCGIS Center
# For matrixed positions, % GIS is proportioned to each affected agency's staffing table
⊗ Difficult to quantify

5.1.3 Department of Development and Environmental Services

Working Title	Focus	Class	Status	% GIS

Working Title	Focus	Class	Status	% GIS
IS Section Manager	Staff supervision, program management, GIS/IS integration	IT Manager	FTE	25
Lead GIS Analyst	Staff Coordination, data development, data documentation, county wide GIS coordination, data analysis	GIS Spec. – Master	FTE	100
GIS Analyst/Programmer	Application, development, SDE administration, data maintenance, data documentation, data analysis, map production	GIS Spec. – Senior	FTE	100
GIS Analyst/Programmer	Application design, application development, end user education, data analysis, map production	GIS Spec. – Senior	FTE	100
GIS Analyst/Cartographer	Map production, data analysis, data development, data maintenance, data documentation	GIS Spec. – Senior	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 13 PSAPs	GIS Spec. – Senior	FTE	100
E-911 PSAP Mapping Analyst	Support the E-911 GIS Mapping Administrator, E-911 Office, and 13 PSAPs	GIS Spec. – Journey	FTE	100

5.1.5 DES – Records, Elections, and Licensing Services Division

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

5.1.6 DES –Facilities Management Division

- No dedicated GIS staff.

5.1.7 DNRP – Wastewater Treatment Division

Working Title	Focus	Class	Status	% GIS
GIS Analyst§	Combined Sewer Overflows program, operations and maintenance, Web applications, database	GIS Spec. – Senior	FTE	100#

Working Title	Focus	Class	Status	% GIS
	development			
GIS Analyst§	Brightwater, Water Reuse program	GIS Spec. – Senior	FTE	100#
GIS Analyst§	Conveyance System Improvements program, Google map development	GIS Spec. – Journey	FTE	100#
GIS Analyst§	Inflow and Infiltration program / KCGIS Center client services	GIS Spec. – Journey	FTE	30#

§ Matrixed from KCGIS Center
# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

5.1.8 DNRP – Water and Land Resources Division

Working Title	Focus	Class	Status	% GIS
GIS Analyst§	Image processing, SMP & analysis, general WLR GIS analysis projects	GIS Spec. – Senior	FTE	100#
GIS Analyst§	ArcIMS (iMap) and GIS-related web applications, general WLR GIS analysis projects	GIS Spec. – Senior	FTE	100#
GIS Analyst§	Forestry, agriculture, land ownership, noxious weeds, current use assessment, open space and general WLR GIS analysis projects (Matrix support from KCGIS Center)	GIS Spec. – Senior	FTE	100#
GIS Analyst§	DNRP GIS intranet site maintenance. CARA, ASGWC04 and general WLR GIS analysis projects (Matrix support from KCGIS Center)	GIS Spec. – Journey	FTE	100#

§ Matrixed from KCGIS Center
# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

5.1.9 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	50#
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,	GIS Spec. - Journey	FTE	25#

Working Title	Focus	Class	Status	% GIS
	map design and production, and application development			

§ Matrixed from KCGIS Center
# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

5.1.10 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, 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

5.1.11 Department of Public Health

- No information submitted

5.1.12 DOT – Roads Services Division

Working Title	Focus	Class	Status	% GIS
Budget and Systems Manager (Administration)	Finance & Administration Manager	Manager	FTE	5
Division IT Technology Coordinator	Managing Information Systems in the Road Services Division	IT Supervisor I	FTE	15
GIS Technical Support TLT (Administration)	Map production and data analysis	Web Developer	TLT	10
Maintenance Section Technology Unit Supervisor	Coordinate Division GIS efforts and Maintenance Section lead	IT Supervisor I	FTE	10
Maintenance Section Data Handling	Maintenance Section production	Engineer 1	FTE	60
Maintenance Section Technology Unit Fieldwork Supervisor	Maintenance Section data collection	Engineer 4	FTE	25
Road Services Division Data Analyst§	Map production and data analysis	GIS Spec. - Senior	FTE	100#
Engineering Section Data Manager (Engineering)	Engineering section lead	Engineer 3	FTE	60
Engineering Section Data Analyst (Engineering)	Map production and data analysis	Engineer 2	FTE	40
Traffic Section Data Manager	Traffic section lead	IT Project Manager I	FTE	30

§ Matrixed from KCGIS Center

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

5.1.13 DOT – Transit Division

Working Title	Focus	Class	Status	% GIS
GIS Program Manager	Team lead, operations coordination, Transit Division liaison, training	IT Project Manager II	1 FTE	95
GIS Database Administrator	INFO, geodatabase, shape, ArcSDE administration, and GIS-to-Oracle interfacing	DBA - Senior	1 FTE (Vacant)	95
GIS Senior Application Developer	System architecture, application development, and coordination	App. Dev. - Senior	1 FTE	95
GIS Application Developer	Application development	App. Dev. - Senior	1 FTE	95
GIS Analyst	Data maintenance, map production, data analysis, software installation	GIS Spec - Journey	1 FTE	95
GIS Analyst§	Data maintenance, map production, data analysis, software installation	GIS Spec. - Journey	1 FTE	100#
IT Supervisor	GIS team supervisor, KCGIS Oversight representative	ISP V	1 FTE	15
IT Systems Analyst	Hardware and operating system support (NT, Web)	Sys. Eng. - Senior	1 FTE	10
IT Oracle DBA	Oracle database administration	DBA - Senior	1 FTE	15

§ Matrixed from KCGIS Center
# For matrixed positions, % GIS is proportioned to each affected agency's staffing table

5.1.14 DOT – King County International Airport

Working Title	Focus	Class	Status	% GIS
GIS Analyst	Map production, data analysis, data maintenance, and GIS coordination.	PPM II	TLT	40

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	10-15
Crime Analyst	Crime analysis and mapping	Project/Program Manager II	FTE	10-15

Working Title	Focus	Class	Status	% GIS
Crime Analyst	Crime analysis and mapping	Project/Program Manager II	FTE	10-15
Crime Analyst	Crime analysis and mapping	Project/Program Manager II	FTE	10-15

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	15

5.1.17 Office of Budget

Working Title	Focus	Class	Status	% GIS
Analyst / GIS Coordinator	Data analysis, project management	PPM II	FTE	70
Benchmark Program Coordinator	Report project management	PPM III	FTE	5
Economist	Economic research	Executive Assistant	FTE	10

5.1.18 Department of Community and Human Services

Working Title	Focus	Class	Status	% GIS
Affordable Housing, Planning and Development Coordinator	CSD/HCD Support. GIS role limited to GIS coordination within the CSD/HCD work area and with other divisions for the annual DCHS GIS work plan, DCHS PM for the GIS Needs Assessment, representing DCHS on the GIS Technical Committee	Housing PPM III	FTE	5
Epidemiologist	MHCADS support	Epidemiologist	FTE	5

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)	$1,948,448	$1,334,537	$3,282,985	
Hardware (acquisition and maintenance)	$86,580	$19,840	$106,420	Includes $35,000 allocated to a dedicated long term equipment replacement fund. An additional $89,768 represents KCGIS Center's portion of the new County Business Continuity infrastructure to be acquired in 2007.
Software (acquisition and maintenance)	$101,733	$20,869	$122,602	
Training costs	$25,150	$16,250	$41,400	
Discretionary (consultants, outside services, materials, etc.)	$311,807	$16,675	$328,482	$200,000 represents a new aerial imagery reserve fund. $36,497 represents appropriation authority for cost reimbursable client services expenses.

5.2.2 Department of Assessments

Item	Budget	Comments
Labor Costs (salary + benefits)	$829,232	Includes cost for 1.00 FTE plus allocated portion of KCGIS Center management & administrative labor costs ($103,310). Figure provided by KCGIS Center. KCA staff based on 2006 coordinator and mapping staff labor figures plus 2% cola ($725,922).
Hardware (acquisition and maintenance)	$1,581	As part of matrixed staff. Figures provided by KCGIS Center.
Software (acquisition and maintenance)	$14,496	As part of matrixed staff ($1,496). Figure provided by KCGIS Center. KCA software maintenance based on 2006 figures ($13,000).
Training costs	$1,295	As part of matrixed staff. Figure provided by KCGIS Center.
Discretionary (consultants, outside services, materials, etc.)	$ 63,493	Includes $62,164 for KCGIS Center client services support and $1,329 for miscellaneous supplies and services. Figures provided by KCGIS Center.

5.2.3 Department of Development and Environmental Services

Item	Budget	Comments
Labor Costs (salary + benefits)	$456,450	Average fully loaded FTE cost times 4.25.
Hardware (acquisition and maintenance)	$76,667	Based on 1/3 proportion of general IS hardware costs.
Software (acquisition and maintenance)	$48,000	Based on 1/3 proportion of general IS software costs plus GIS specific software.
Training costs	$6,667	Based on 1/3 proportion of IS training budget.
Discretionary (consultants, outside services, materials, etc.)	$22,213	Budgeted Client Services from the KCGIS Center, miscellaneous supplies, and GIS conference travel expense.

5.2.4 DES – Emergency Management Division

Item	Budget	Comments
Labor Costs (salary + benefits)	$180,556	One FTE GIS Administrator position and one FTE GIS Analyst position.
Hardware (acquisition and maintenance)	$20,000	Server and software for storage of GPS Address data.
Software (acquisition and maintenance)	$234,391	Software purchased to support E-911 GPS Address project and PSAP CAD maps.
Training costs	$3000	PSAP employee training for mapping.
Discretionary Items	$0	No discretionary items for 2007.

5.2.5 DES – Records, Elections, and Licensing Services Division

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

5.2.6 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.)	$54,616	$21,328 is funding for KCGIS Center Client Services. $33,288 is funding for REPMS development in 2007 only.

5.2.7 DNRP – Wastewater Treatment Division

Item	Budget	Comments
Matrix Labor Costs (salary + benefits)	$354,773	Includes cost for 3.30 FTE plus allocated portion of KCGIS Center management and administrative labor costs.
Hardware (acquisition and maintenance)	$5,217	
Software (acquisition and maintenance)	$3,721	
Training costs	$4,273	
Discretionary (consultants, outside services, materials, etc.)	$44,891	Includes $40,506 for KCGIS Center client services support and $4,385 for miscellaneous supplies and services.

5.2.8 DNRP – Water and Land Resources Division

Item	Budget	Comments
Matrix Labor Costs (salary + benefits)	$423,813	Includes cost for 4.00 FTE plus allocated portion of KCGIS Center management and administrative labor costs.
Hardware (acquisition and maintenance)	$6,324	
Software (acquisition and maintenance)	$9,603	
Training costs	$5,179	
Discretionary (consultants, outside services, materials, etc.)	$5,315	

5.2.9 DNRP – Parks and Recreation Division

Item	Budget	Comments
Labor Costs (salary + benefits)	$125,567	Includes cost for 1.25 FTE plus allocated portion of KCGIS Center management and administrative labor costs.
Hardware (acquisition and maintenance)	$1,976	
Software (acquisition and maintenance)	$1,559	
Training costs	$1,619	
Discretionary (consultants, outside services, materials, etc.)	$28,837	Includes $27,176 for KCGIS Center client services support and $1,661 for miscellaneous supplies and services.

5.2.10 DNRP – Solid Waste Division

Item	Budget	Comments
Labor Costs (salary + benefits)	$102,355	Includes cost for 1.00 FTE plus allocated portion of KCGIS Center management and administrative labor

Item	Budget	Comments
		costs.
Hardware (acquisition and maintenance)	$1,581	
Software (acquisition and maintenance)	$1,496	
Training costs	$1,295	
Discretionary (consultants, outside services, materials, etc.)	$1,329	Includes costs for miscellaneous supplies and services

5.2.11 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.)	$16,942	Budget for Client Services support from the KCGIS Center.

5.2.12 DOT – Roads Services Division

Item	Budget	Comments
Labor Costs (salary + benefits)	$333,157	Budget and Technology Manager salary not included. Includes cost for 1.00 FTE matrix staff from KCGIS Center.
Hardware (acquisition and maintenance)	$1,581	Represents costs associated with KCGIS Center matrix staff, otherwise none planned for 2007.
Software (acquisition and maintenance)	$11,496	$1,496 represents costs associated with KCGIS Center matrixed staff.
Training costs	$6,295	$1,295 represents costs associated with KCGIS Center matrixed staff training.
Discretionary (consultants, outside services, materials, etc.)	$4,329	$1,329 represents costs associated with KCGIS Center matrix staff.

5.2.13 DOT – Transit Division

Item	Budget	Comments
Labor Costs (salary + benefits)	$602,318	Operating (3.95 FTE) and Grant (.45 FTE) only; $39,600 estimated grant reimbursement from FTA.

Item	Budget	Comments
		$113,351 for KCGIS matrixed labor costs.
Hardware (acquisition and maintenance)	$1,581	$1,581 for KCGIS Matrixed hardware costs.
Software (acquisition and maintenance)	$19,496	Software maintenance on GIS licensing and license monitoring software. $1,496 for KCGIS Matrixed costs.
Training costs	$16,295	Includes GIS international and local conferences and other technical training. $1,295 for KCGIS Matrixed costs.
Discretionary (consultants, outside services, materials, etc.)	$4,329	Plotter supplies, training manuals, subscriptions, etc. $1,329 for KCGIS Matrixed costs.

5.2.14 DOT – King County International Airport

Item	Budget	Comments
Labor Costs (salary + benefits)	$28,920	Based on 40% of KCIA's PPM II salary + benefits.
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)	$2,400	ESRI Publisher Extension and maintenance cost for ArcGIS ArcView.
Training costs		
Discretionary (consultants, outside services, materials, etc.)	$25,000	Budget for Client Services support from the KCGIS Center.

5.2.15 King County Sheriff's Office

- No information submitted

5.2.16 Metropolitan King County Council

Item	Budget	Comments
Labor Costs (salary + benefits)		Because GIS represents such a small part of the Council's overall budget, resources are not allocated at the line item level. Rather, GIS labor, hardware, software and training costs are funded on an as-needed basis from the Council's overall budget. The exception to this is the dollar amount budgeted for KCGIS Center Client Services (see below).
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training costs		Council staff that currently utilizes GIS participate in training programs offered by the KCGIS Center, at low and sometimes no cost. There is currently no in-house training of GIS end-users.
Discretionary (consultants, outside services, materials, etc.)	$17,716	Budgeted Client Services from the KCGIS Center.

5.2.17 Office of Budget

Item	Budget	Comments
Labor Costs (salary + benefits)	$58,000	Approximate labor cost for dedicated 0.7 FTE GIS analyst.
Hardware (acquisition and maintenance)	$500	Assume half of GIT section office supplies budget for GIS maintenance supplies.
Software (acquisition and maintenance)	$0	No known software budget.
Training costs	$900	Approximate half of GIT's 2007 training budget for GIS.
Discretionary (consultants, outside services, materials, etc.)	$28,380	Discretionary budget for KCGIS Center client services.

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, and training costs are funded on an as-needed basis from individual DCHS work programs. The only exception is the separate GIS services budget for work to be done by KCGIS Center Client Services.
Hardware (acquisition and maintenance)		
Software (acquisition and maintenance)		
Training costs		
Discretionary (consultants, outside services, materials, etc.)	$21,328	Budgeted for client services from the KCGIS Center.

5.3 Licensing

Software Licensing (counts by agency)	KCGIS Center	Assessments	DDES	DES – EMD	DES – REALS	DES – FMD	DNRP – WTD	DNRP – WLRD	DNRP – PRD	DNRP – SWD	Public Health	DOT – Roads	DOT – Transit	DOT – Airport	KCSO	KC Council	OMB	DCHS
ArcGIS – ArcView	11	1	-	-	Plan is expected to be provided as an addendum in early 2007	1	3	15	-	-	5	1	9	1	5	-	3	-
ArcGIS – ArcEditor	-	-	-	1		-	-	-	-	-	-	1	-	-	-	-	-	-
ArcGIS – ArcInfo	17	9	4	1		-	2	4	-	-	-	4	5	-	-	-	-	-
ArcGIS – 3D Analyst	6	-	-	-		-	-	-	-	-	-	1	1	-	-	-	-	-
ArcGIS – Spatial Analyst	6	-	-	1		-	-	-	-	-	-	1	-	-	5	-	-	-
ArcGIS – Network Analyst	1	-	-	-		-	-	-	-	-	-	1	1	-	-	-	-	-
ArcGIS – Geostatistical Analyst	1	1	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Survey Analyst	1	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Tracking Analyst	1	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Image Analyst	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – ArcPress	2	-	-	-		-	-	4	-	-	-	-	-	-	-	-	-	-
ArcGIS – Data Interoperability	1	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Publisher	1	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Server	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcGIS – Engine	-	2	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcSDE	5	-	1	1		-	-	-	-	-	-	-	1	-	-	-	-	-
ArcIMS	1	-	1	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcPad	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcPad – Application Builder	-	-	-	-		-	-	-	-	-	-	1	-	-	-	-	-	-
Maplex for ArcGIS	1	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcInfo 7.x	14	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcInfo 7 – Cogo	9	-	-	-		-	-	-	-	-	-	1	-	-	-	-	-	-
ArcInfo 7 – Network	1	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
ArcView 3.x	22	22	20	2		-	~36	30	6	2	7	34	30	-	5	2	2	2
MapObjects – Developers Kits	1	1	1	-		-	-	-	-	-	-	-	4	-	-	-	-	-
MapObjects – Deployments	20	20	-	-		-	-	-	-	-	-	-	40	-	-	-	-	-

5.4 Maintained Data

5.4.1 KCGIS Center

Enterprise

Name	Description	Update Frequency
BIGWATER_CON	An older version of the WTRBDY derivative called BIGWATER where major waterbodies have been adjusted (conflated) to PARCEL edges. This adjustment is for improved cartographic display where parcel boundaries may otherwise be slightly mismatched with water boundaries.	As needed
BIGWATER	An extract of the master waterbody data set, WTRBDY_MAST. Includes Puget Sound, larger inland waterbodies and major double-banks streams for King County and adjacent areas. For King County area includes a high-tide and low-tide boundary that can be symbolized appropriately when using with different county-wide aerial photography. Also includes waterbody types that can be used to symbolize feature type including man-made features extending over major waterbodies. Waterbodies included in BIGWATER are selected from WTRBDY_MAST by coding of SUBSET value, allowing features to be removed or added for subsequent versions.	Irregular
BIKEMET	Bicycle and non-motorized vehicle routes, paved and unpaved, within King County.	None planned
BLKGRP00	US Census Bureau Block Groups conflated to cadastral base.	Decennially
BLOCKGRP	1990 Census Tract/Blocks with the same hundred level.	Irregular
BLOCKNET	1990 Census Blocks developed for KC TRC from Tigerline files.	Irregular
BLOCKS00	Census Bureau Blocks conflated to RECDNET.	Decennially
CANOPY	Forest Canopy.	Irregular
CONT100	Index contours at 20 foot (CONT20), 50 foot (CONT50) , and 100 foot (CONT100) intervals derived from USGS 10 meter Digital Elevation Model (DEM).	None planned
CONT20	Index contours at 20 foot (CONT20), 50 foot (CONT50) , and 100 foot (CONT100) intervals derived from USGS 10 meter Digital Elevation Model (DEM).	None planned
CONT50	Index contours at 20 foot (CONT20), 50 foot (CONT50) , and 100 foot (CONT100) intervals derived from USGS 10 meter Digital Elevation Model (DEM).	None planned
CONTOUR020C	LiDAR-derived index contours selected from the SDE Geodatabase 5-foot seamless contour base.	Irregular
CONTOUR020N	LiDAR-derived index contours selected from the SDE Geodatabase 5-foot seamless contour base.	Irregular
CONTOUR020S	LiDAR-derived index contours selected from the SDE Geodatabase 5-foot seamless contour base.	Irregular
CONTOUR040	LiDAR-derived index contours selected from the SDE Geodatabase 5-foot seamless contour base.	Irregular
CONTOUR050	LiDAR-derived index contours selected from the SDE Geodatabase 5-foot seamless contour base.	Irregular

Name	Description	Update Frequency
CONTOUR100	LiDAR-derived index contours selected from the SDE Geodatabase 5-foot seamless contour base.	Irregular
E911_ESN	Emergency Service Area.	Annually
FAZ	Population Forecast Analysis Zones for greater Puget Sound. Each unit is defined by a collection of census blocks and tracts.	Irregular
FIRESTN	Locations of King County fire stations.	Irregular
HOSPITALS	General location of hospitals in King County within ownership parcel, shown as point features.	Annually
INDEX	Index of RECDNET tiles.	None planned
INDEX_QT	Copy of the tiled index with twp range and 1/4 tile lines only.	None planned
INDEX_TR	Copy of the tiled index with township and range lines only.	None planned
KCP_DIST	King County Police Patrol Districts.	None planned
KCP_LOC	King County Police station locations as point features.	Irregular
KINGCO	King County Political Boundary.	Irregular
KINGSH	King County/Vashon Island shoreline boundary.	Irregular
KROLLIDX	Kroll Map Index for King County. Each polygon shows the page number corresponding to the Kroll map book.	As needed
MTPEAKS	Mountain Peaks.	Irregular
MUN_WSHD	Municipal watershed.	As needed
OPPIPES	Olympic Pipe Line Company right-of-way through King County.	Irregular
PH_CLINICS	General location of Public Health of Seattle and King County Medical and Dental Facilities within ownership parcel, shown as point features.	None planned
PLACE00	King County Place areas and names from 2000 Census.	As needed
PLACE	1990 Census Places.	None planned
PLSS	Public Land Survey System.	Irregular
PLSS_POINT		None planned
PLSS_QTR	Public land survey system (PLSS) for combined King and Snohomish County areas, at quarter section level where available. See also PLSS_SEC and PLSS_TWN for section grid and township grid, respectively, dissolved from PLSS_QTR.	None planned
PLSS_SEC	Public land survey system (PLSS) for combined King and Snohomish County areas, at section level. See also PLSS_TWN and PLSS_QTR for township/range and quarter-section grids, respectively.	None planned
PLSS_TWN	Public land survey system (PLSS) for combined King and Snohomish County areas, at township-range level. See also PLSS_SEC and PLSS_QTR for section grid and quarter-section grid, respectively.	None planned
POINOPUB	Points of Interest owned or operated by non-public agencies.	Irregular
POIPUB	Points of Interest owned or operated by public agency.	As needed
REFGRD16	Reference grid (1/16 sections).	None planned

Name	Description	Update Frequency
REG_PSCTR020	Generalized 20-foot contour isolines derived from Puget Sound lowlands combined bathymetry and elevation digital elevation model.	None planned
ROW	Street right of way with PIN.	
SCHSITE	King County School Sites and School Related Facilities.	As needed
ST_ADDRESS	KC streets derived from RECDNET with address ranges	Quarterly
TAZ00	Census Bureau TAZ conflated to RECDNET	None planned
TAZ	1990 Traffic Analysis Zones for Greater Puget Sound. One or more TAZ unit will reside completely within a Forecast Analysis Zone (FAZ).	Irregular
THOM_BROS	The Thomas Guide page index	None planned
THOM_BROS_RC	Row (1-7) and column (A-J) index, in addition to page number for Thomas Brothers Guide. Use in conjunction with page grid only, THOM_BROS.	None planned
TOPO_BASIN_KC	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TOPO_BASIN	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TOPO_ CATCHMENT_KC	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TOPO_ CATCHMENT	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TOPO_ WATERSHED_KC	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned

Name	Description	Update Frequency
TOPO_ WATERSHED	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TOPO_WRIA_KC	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TOPO_WRIA	DRNBASIN is replaced with a higher detail TOPO_CATCHMENT. The difference between the two is DRNBASIN was digitized from existing paper maps based on USGS quad maps in the early 1990s. While the TOPO_CATCHMENT was produced using Arc/Info GRID Watershed commands on 6 foot cell GRIDS built from LIDAR ASCII ground model data. Topo_Catchment is higher in accuracy then DRNBASIN	None planned
TRACTS00	Census Bureau Tracts for King County	Decennially
TRACT	1990 Census Tracts developed for KCTRC from Tigerline files.	Irregular
WASHCO	Political county boundaries for Washington state. Also as KINGCO for King County only.	Irregular
WASHSH	Washington county boundaries with shoreline, also as KINGSH for King County only	Irregular
WTRBDY_CON	A version of WTRBDY where major waterbodies have been adjusted (conflated) to PARCEL edges. This adjustment is for improved cartographic display where parcel boundaries may otherwise be slightly mismatched with water boundaries.	As needed
WTRBDY	Lakes and rivers of King County and surrounding area	As needed
WTRBDY_WET	Extract of wetland areas (wtr_type_c =111) from WTRBDY. WTRBDY shows only open water areas and double-banked streams. Wetland areas are shown in layers WETLD and WTRBDY_WET, reflecting different sources.	Irregular
WTRCRS	Streams of King County and surrounding area	Quarterly
ZIPCODE	King County Zip Code Boundaries	Annually

Agency

- None.

5.4.2 Department of Assessments

Enterprise

Name	Description	Update Frequency

Name	Description	Update Frequency
BOUNDARY	Countywide cadastral data line features. Includes streets and other features necessary for describing property boundaries. Based on the legal description of the property.	Daily*
PARCEL	Countywide parcel boundaries.	Daily*
ANNO_CA1 ANNO_CA2 ANNO_CA3	Countywide cadastral annotation. Includes street names, lot dimensions and other features necessary for describing property boundaries. Annotation is currently in three pieces reflecting the order the data was converted to the geodatabase. The data may be integrated into a single layer some time in the future.	Daily*
ENCUMBRANCE	Easements and sensitive area polygons as found in the boundary layer. This layer is under construction and may not be ready for enterprise access in 2007.	Daily*
CONVEYANCE	Boundaries of plats and/or major numbers. This layer is under construction and may not be ready for enterprise access in 2007.	Daily*
PLSS_AREA	PLSS boundaries as defined for cadastral maintenance.	As needed
PLSS_LINE	PLSS boundaries as defined for cadastral maintenance	As needed
PLSS_POINT	PLSS corners as defined for cadastral maintenance.	As needed
KCACODE	Levy Code boundaries.	As needed**

* As segregation and merger activities take place.
** To meet statutory requirements for maintenance of the data

Agency

Name	Description	Update Frequency
KCACITY	City boundaries for Assessments purpose. Will be migrated to a jointly maintained enterprise layer with DDES.	As needed.
COMAREAS	Commercial Areas	As needed
RESAREAS	Residential Areas	As needed
QSMAPINDEX	QSTR index for producing quarter-section maps.	As needed

5.4.3 Department of Development and Environmental Services

Enterprise

Name	Description	Update Frequency
AGRPDDST	Polygons representing the Agricultural Production District (APD) as defined by Chapter 3 of the King County Comprehensive Plan.	As needed
BASIN_ CONDITION	Polygons representing the drainage basin condition category assigned under the King County Critical Areas Ordinance.	None planned
CHINBUFF	Polygons representing 500-foot buffer from streams identified by Chinook distribution analysis.	None planned
CITY	Polygons representing current city boundaries. Layer CITY is a simplified derivative of CITYMAST.	As needed

Name	Description	Update Frequency
CITY_KC	Polygons representing current city boundaries, as well as polygons for the unincorporated areas of King County. Layer CITY_KC is a simplified derivative of CITYMAST.	As needed
CITYMAST	Polygons representing city annexation boundaries, including pending annexations. Includes current corporate boundaries and annexation and incorporation activity since mid 1980's. Key attributes include jurisdiction, annexation status and annexation effective date. The layer City is a derivative of CITYMAST.	As needed
CLEARING_ RESTRICTIONS	Polygons representing clearing and grading restrictions as defined by Title 16 Building and Construction Standards – 16.82.150 of King County Code.	As needed
COALMINE	Polygons representing Sensitive Area Ordinance coal mine hazards as defined in Title 21A Zoning – 21A.24 of King County Code.	Irregular
COLSITE	This coverage contains identified sites with current and/or grandfathered mineral extraction rights.	Irregular
COMMUNITY_ PLAN	Polygons representing Community Planning Areas as defined by various planning documents.	None planned
COMPLU COMPLUXX	Polygons representing King County Comprehensive Plan land use designations for unincorporated King County as well as portions of the County annexed or incorporated since 1993 (King County planned land use is no longer in effect in annexed areas, information is retained for historic purposes only). Archival versions of planned land use are retained on an annual basis (e.g., COMPLU00, COMPLU 99, etc.)	As needed
DEMONSTRATION _PROJECT	Polygons representing demonstration project areas as defined by Title 21A Zoning – 21A.55 of King County Code.	As needed
DRAINCAR	Polygons representing parcels with Citizen Action Requests for drainage problems recorded on them by DRNP/WLRD staff	Bi-annually
ERODE	Polygons representing Sensitive Area Ordinance erosion hazards as defined in Title 21A Zoning – 21A.24 of King County Code.	Irregular
FORPDDST	Polygons & Lines representing the Forest Production District (FPD) as defined by Chapter 3 of the King County Comprehensive Plan.	As needed
GRWTHPAT	Polygons representing King County generalized land use pattern, which is a simplification and grouping of the Comprehensive Plan land use designations.	As needed
HISTSITE	Points representing officially designated Historic Sites in King County as defined by the King County Historic Resource Inventory.	Irregular
HORSE_ COMMUNITY	Polygons representing Equestrian Communities as defined by Chapter 3 of the King County Comprehensive Plan.	As needed
INRMPAA	Polygons representing interim Potential Annexation Areas (PAA) for cities in King County. Also includes overlaps, and gaps in the Urban designated areas.	As needed
KCADDRGRID	Lines representing King County addressing grid as adopted by Resolution 16622.	None planned
MPS	Polygons representing road mitigation payment system zones, which are derived from Small Area Zones (SAZ).	As needed

Name	Description	Update Frequency
PSC	Polygons representing areas with property specific development standards (also known as P-suffix conditions) as defined by Title 21A Zoning – 21A.38 of King County Code.	As needed
SANT	Polygons representing parcel specific attributes for Sensitive Area Notice on Title (SANT) information.	Monthly
SAO_WETLAND	Polygons representing Sensitive Area Ordinance wetlands as defined in Title 21A Zoning – 21A.24 of King County Code. Attributes include wetland ID and wetland rating (also known as class). An Access database linked by wetland ID provides detailed wetland inventory data.	Irregular
SAOSTREAM	Lines representing the Sensitive Area Ordinance streams as defined in Title 21A Zoning – 21A.24 of King County Code.	Irregular
SDO	Polygons representing areas with special district overlay designations as defined by Title 21A Zoning – 21A.38 of King County Code.	As needed
SEISM	Polygons representing Sensitive Area Ordinance seismic hazards as defined in Title 21A Zoning – 21A.24 of King County Code.	Irregular
SHORELINE_ CONDITION	Lines representing the marine shoreline environmental condition category assigned under the King County Critical Areas Ordinance.	None planned
SHORELINEMMP	Polygons representing Shoreline Management Master Program designations as defined by Title 25 Shoreline Management of King County Code.	Irregular
SLIDE	Polygons representing Sensitive Area Ordinance landslide hazards as defined in Title 21A Zoning – 21A.24 of King County Code.	Irregular
SPEC_ DRAINAGE_REQ	Polygons representing areas with special drainage requirements as previously defined by Title 9 Surface Water Management – 9.04 of King County Code. These requirements have been repealed but the layer is retained for historical purposes.	None planned
SSAQUIF	Polygons representing areas that have underlying aquifers with only one source	None planned
TCMZONE	Polygons representing the KCDOT Transportation Concurrency Mitigation Zones and including their identifying number.	As needed
TRIBAL_LANDS	Polygons representing lands under native American jurisdiction	As needed
UAC	Polygons representing Unincorporated Area Councils (UAC).	As needed
UPLOWTRIBBAS	Polygons representing Upper and lower basin designations for tributary streams under the King County Critical Areas Ordinance.	None planned
URBAN_GROWTH URBAN_ GROWTHXX UGLINEXX	Polygons and Lines representing the King County Urban Growth Area (UGA) boundary. Archival versions of the UGA boundary are retained on an annual basis (e.g. URBANGROWTH05, UGLINE99, etc.)	As needed
WILDNET96	Wildlife Habitat Network as modified in 1996	None planned
ZONING	Polygons representing current zoning designations for unincorporated King County as well as portions of the County annexed or incorporated since 1993 (King County zoning is no longer in effect in annexed areas, information is retained for historic purposes only).	As needed

Agency

Name	Description	Update Frequency
APD95	Archival versions of the Agricultural Production District (APD) as defined by Chapter 3 of the King County Comprehensive Plan (e.g. APD95).	None planned
AQUATIC	Polygons representing maximum stream buffers of Aquatic Areas (primarily streams and water bodies) under the King County Critical Areas Ordinance	Irregular
BLDG_IA	Polygons representing building inspection areas.	Irregular
CAO_ DESIGNATION	Polygons representing properties with field checked critical area sketch maps on record.	Monthly
CARDROOM	Points representing operating card rooms in King County as of April 2000	None planned
CDA	Polygons representing Critical Drainage Areas	None planned
CIA	Polygons used as the basis for all the various XXXX_IA layers. When those layers are adjusted the CIA polygons are reallocated.	Irregular
CITYIMP	Polygons representing impact areas (areas of interest) as defined by various cities.	None planned
CLEAR_IA	Polygons representing clearing inspection areas.	Irregular
CODE_IA	Polygons representing code enforcement areas.	Irregular
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
CP_CENTER	Polygons and Points representing community centers designated under the KC Comp. Plan	As needed
ESA_IA	Polygons representing Environmental Species Act (ESA) inspection areas.	Irregular
ESC_IA	Polygons representing erosion and sediment control inspection areas.	Irregular
FLOODELEVCERT	Polygons representing parcels with a recorded flood elevation certificate.	Irregular
FPAXXXX	Archival versions of the parcels with Forest Practices Applications in the given year (e.g. FPA1996).	None planned
FPDXX	Archival versions of the Forest Production District in the given year (e.g. FPD95).	None planned
GRAD_IA	Polygons representing grading inspection areas.	Irregular
GWMAREA	Polygons representing ground water management areas.	None planned
HALEKATE	Points representing observed Bald Eagle Nest Points	None planned
HALEPAR	Polygons representing parcels containing observed Bald Eagle Nest Points.	None planned
INTERLOC	Polygons representing DDES interlocal agreements with various cities and agencies.	As needed
JPA	Polygons representing joint planning areas as defined by the King County Comprehensive Plan.	Irregular

Name	Description	Update Frequency
KCGOVFAC	Points representing government facilities that need to be shown on DDES maps. Notably the Black River facility that houses DDES.	Irregular
KINGADDR.MDB	Parcel specific database of situs addresses as recognized by DDES for properties in unincorporated King County.	Continually
LMP	Polygons representing Lake Management Plans	None planned
LPS	Polygons representing Lake Protection Standard Areas	None planned
LU_IA	Polygons representing land use inspection areas.	Irregular
LU_PROJECT_MGR	Polygons representing areas of responsibility for Project Managers	As needed
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
MDPA	Master Drainage Plans Areas as defined and regulated by the Surface Water Design Manual.	Irregular
MINE_SITES	Points representing mineral resource sites as defined by Chapter 3 of the King County Comprehensive Plan.	As needed
MINEXX	Archival versions of mineral resource sites as defined by Chapter 3 of the King County Comprehensive Plan in the given year (e.g. MINE95).	None planned
MRWATERS	Polygons representing major receiving water bodies as regulated by the Surface Water Design Manual.	Irregular
OPENENF	Points representing open code enforcement cases.	Monthly
OPENLUIS	Points representing open land use inspections.	Monthly
P_XXXXX	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
PARCELS.MDB	Parcel specific database for development conditions information.	As needed
PERMPAR	Polygons representing parcels associated with DDES permits. Includes historical parcels that no longer exist.	Monthly
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
RADXX	Archival versions of the Rural Agricultural District in the given year (e.g. RAD95).	None planned
RED_TAILED_HAWK	Points indicating observed Red-Tailed Hawk nests.	As needed
RFDXX	Archival versions of the Rural Forest District in the given year (e.g. RFD95).	None planned
RFFA	Polygons representing the KC Comp. Plan designated Rural Forest Focus Areas	As needed
SC-RSRA	Polygons representing Regionally Significant Resource Areas in the Rural portions of the Soos Creek Basin Plan	None planned

Name	Description	Update Frequency
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.	Irregular
SNOWLOAD	Polygons representing ground snow load zones.	Irregular
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
SUBDIV	Polygons representing each recorded plat. Generated by dissolving tax lots on major number.	Irregular
TDR	Polygons representing parcels receiving or sending Transfer of Development Rights (TDR).	As needed
TELECOMM	Points representing telecommunications related permits. Of special interest are cell phone tower permits.	Quarterly
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
URBCENTR	Polygons and Points representing urban centers designated under the KC Comp. Plan	As needed
WHCA_FLAG	Polygons representing buffer distances around species nests that are designated as Wildlife Habitat Conservation Areas under the KC Critical Areas Ordinance	As needed
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
ZONINGXX	Archival versions of the Zoning at the end of each given year (e.g. Zoning00).	None planned

5.4.4 DES – Emergency Management Division

Enterprise

Name	Description	Update Frequency
E-911AddressPoint	Countywide address point layer for every addressable building point in King County.	Daily*

* As address activities take place.

Agency

Name	Description	Update Frequency
ESN	Emergency Service Zone Numbers (ESN) boundaries used to route 911 emergency calls.	As needed
SITE ADDRESSES	Addressable building points in King County, including x,y locations	As needed

ROADS	New roads collected during site address verification process, will be passed on to the TNET.	As needed

5.4.5 DES – Records, Elections, and Licensing Services Division

Enterprise

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

Agency

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

5.4.6 DES –Facilities Management Division

Enterprise

Name	Description	Update Frequency
REPMS	Database containing information on county real property acquisitions, surplus sales, leases, permit status, and easements.	Daily

Agency

- No agency data layers maintained at this time.

5.4.7 DNRP – Wastewater Treatment Division

Enterprise

Name	Description	Update Frequency
FACILITY	Manholes, pump stations, regulator stations, treatment plants. The Facility point coverage is generated from coordinate locations in the Facility Information Retrieval System (FIRS). It represents all facilities in the King County Wastewater Treatment System.	As Needed
PLANT	Regional Wastewater Treatment plants. It contains the location of regional wastewater treatment plants, including King County owned plants and others in King, Pierce, and Snohomish Counties.	As Needed
PLANT_ANNO	Contains regional wastewater treatment plant names.	As Needed
SEWER	WTD's conveyance system. It is generated from the FIRS database populated by the WTD Facility Inspection Section. Arc segments represent sections of conveyance pipe between manholes or other facilities (see FACILITY point coverage).	As Needed
SITEPLAN	Building footprints of treatment plants or other facilities	As Needed
WTDBSN	WTD defined boundaries of sewer infrastructure flow basins with in the King County Wastewater Service Area. This coverage is used for modeling and planning wastewater flows (see WTDSERV).	As Needed
WTDFLOW	Depicts the division of wastewater treatment between the treatment plants within the King County Wastewater Service Area.	As Needed

Name	Description	Update Frequency
WTDSERV	Depicts the King County Wastewater Service Area. It represents the area from which local sewer agencies collect wastewater that is eventually conveyed and treated by King County. Additionally, its eastern edge is defined by the Urban Growth Boundary and encompasses potentially sewerable area for planning and flow projections.	As Needed
WTRSAMP	Water Sampling sites. Sampling locations from LIMS database. WTRSAMP is a point coverage representing the location of water quality sampling sites. The coverage is generated weekly from the LIMS oracle database maintained by the King County DNRP Environmental Lab. Each point has an attribute identifying its LIMS locator ID.	As Needed

Agency

Name	Description	Update Frequency
CSO	Combined Sewer Overflow discharge locations.	As needed
CSOBSN	Basins used for modeling CSOs and CSO Projects.	As needed
FLOWMNTR	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
LOCALLN	Contains depiction of local sewer pipes with available attribute information	As needed
LOCALMH	Contains depiction of local sewer facilities with available attribute information	As needed
MDLBSN	Basins developed for WTD modelers through the Inflow and Infiltration project based on 2001 data.	As needed
MDLBSN00	Basins developed for WTD modelers through the Inflow and Infiltration project based on 2000 data.	None Planned
MDLBSN02	Basins developed for WTD modelers through the Inflow and Infiltration project based on 2001 data with the proper depiction of the Redmond area basins.	As needed
MNIBSN00	Basins developed for flow monitoring efforts through the Inflow and Infiltration project based on 2000 data.	None Planned
MNIBSN	Basins developed for flow monitoring efforts through the Infiltration and Inflow project based on 2001 data.	As needed
MNIBSN01	Basins developed for flow monitoring efforts through the Infiltration and Inflow project based on 2001 data.	None Planned
MNIBSN02	Basins developed for flow monitoring efforts through the Infiltration and Inflow project based on 2001 data with the proper depiction of the Redmond Basins.	As needed
RWSPBSN	Basins used by WTD to plan and manage wastewater flow as used in the Regional Wastewater Service Plan until 2003. This has been superseded by WTDBASIN.	As needed
SERVAREA_DISS	WTD service area boundary.	As needed

Name	Description	Update Frequency
SWR_AGEN	A depiction of the sewer agencies that provide flow to WTD. This dataset 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
SWRLND	Areas of sewered land delineated using local line sewer information, Emerge imagery, and parcel lines based on 2001 data	As needed
SWRLND00	Areas of sewered land delineated using local line sewer information, Emerge imagery, and parcel lines based on 2000 data	None Planned
WTDBSN	WTD sewer basins- RWSP basins with revised boundaries to match the updated service area boundary.	As needed
RAINGAGE	Contains depictions of WTD and Water and Land Resources rain gages.	As needed
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
WTD_HCP	WTD Habitat Conservation Plan Boundary.	As needed
KCTILE	Parcel tile index extracted from data on WILDFIRE.	None Planned
CED_CON	Contours in 20-foot increments for southwest Snohomish County.	None Planned
CEDSLOPE	Steep Slopes by southwest Snohomish County contour area.	None Planned
CESLOPE	Steep Slopes by King County Cedar River contour area.	None Planned
CWSLOPE	Steep Slopes by King County Lake Washington contour area.	None Planned
GESLOPE	Steep Slopes by King County Soos Creek contour area.	None Planned
GWSLOPE	Steep Slopes by King County Duwamish/Green River contour area.	None Planned
LSKA_CON	Contours in 20-foot increments for northwest Snohomish County.	None Planned
LSKASLOPE	Steep Slopes by northwest Snohomish County contour area.	None Planned
NPSLOPE	Steep Slopes by northwest King County contour area.	None Planned
S1SLOPE	Steep Slopes by King County Duvall contour area.	None Planned
S2SLOPE	Steep Slopes by King County North Fork Tolt River contour area.	None Planned
S3SLOPE	Steep Slopes by King County Snoqualmie contour area.	None Planned
S4SLOPE	Steep Slopes by King County Middle Fork Snoqualmie River contour area.	None Planned

Name	Description	Update Frequency
SASLOPE	Steep Slopes by King County Sammamish contour area.	None Planned
SC_TOPOINDX	Snohomish County contour layer index.	None Planned
SLOPE_INDX	Steep slope layer index.	None Planned
SNBA_CON	Contours in 20-foot increments for central and southeast Snohomish County.	None Planned
SNBASLOPE	Steep Slopes by central and southeast Snohomish County contour area.	None Planned
SPSLOPE	Steep Slopes by King County Duwamish River West Bank contour area.	None Planned
STILL_CON	Contours in 20-foot increments for Snohomish County Stilliguamish River area.	None Planned
STILLSLOPE	Steep Slopes by Snohomish County Stilliguamish River contour area.	None Planned
USKA_CON	Contours in 20-foot increments for Snohomish County Glacier Peak area.	None Planned
USKASLOPE	Steep Slopes by Snohomish County Glacier Peak contour area.	None Planned
VASLOPE	Steep Slopes by King County Vashon Island contour area.	None Planned
WRSLOPE	Steep Slopes by King County White River contour area.	None Planned

5.4.8 DNRP – Water and Land Resources Division

Enterprise

Name	Description	Update Frequency
CITY_3CO_AREA	Incorporated Areas in King, Pierce, and Snohomish Counties	As needed*
ASGWC_AREA	Groundwater Contamination Susceptibility. Areas identified as susceptible to possible groundwater contamination.	As needed
CARA_AREA	Critical Aquifer Recharge Areas. The political categories approved by the council – based on ASGWC95 and KC_WHPA	As needed**
SWDM_FLOW_ AREA	2005 Surface Water Design Manual Flow Control Applications	None planned
SWDM_LH_DA_ AREA	2005 Surface Water Design Manual Landslide Hazard Drainage Areas	None planned
SWDM_WQ_AREA	2005 Surface Water Design Manual Water Quality Applications	None planned
SWM_DATA_ TABLE	Surface Water Management Data	Weekly
WEEDS_POINT_ AREA	Noxious Weeds Locations from Surveys	Annually

Name	Description	Update Frequency
CHNLMIGR_AREA	River channel migration hazards	As needed
FLDPLAIN_ AREA	A digital representation of the paper FEMA flood maps. This coverage details the locations of 100 year floodplains as defined by the Federal Emergency Management Agency.	As needed
FLOODWAY_ AREA	A digital representation of the paper FEMA flood maps. This coverage details the locations of floodways as defined by the Federal Emergency Management Agency	As needed
GWSOURCE_ POINT	Locations of groundwater sources	Quarterly
GW_* (GROUNDWATER DATABASE)	A Collection of tables with the GW_ prefix that describe groundwater sources in King County. Provides the source view for the creation of the GWSOURCE data layer	Quarterly
HYDROGAUGE_ POINT	King County Hydrological Gauges	Weekly
SALMONW_ BASINS_AREA	Salmon Watcher Program Basins	None planned
SNOQ_OBLIQUE_ POINT	Riparian Aerial Photo Location	As needed
FARMLAND_AREA	Farmland Preservation Properties	As needed
SALMON_ WATCHER_POINT	Salmon Watcher Program Monitoring Locations. This dataset shows the approximate monitoring locations for planning purposes only.	
WRIA9_ PROJECTS_ POINT	Locations of WLR projects in WRIA 9	Weekly
GWMA_AREA	Groundwater Management Areas. GWMA depicts the boundaries of areas that have undergone groundwater management planning according to a Washington state program	As needed
SMP_AREA	Shoreline Master Program Jurisdiction	
SWES_PROJ_ POINT	WLR SWES Section CIPs and SHRPs	As needed
PUBLIC_LANDS_ AREA	Publicly owned parcels derived from Assessor's data and PARCEL	Quarterly
DRNSTUDY_ POINT	SWES Engineering Studies	As needed
KC_WHPA_10YR_ AREA	Well Head Protection Areas are designed to show zones where contamination can flow into a well. Delineation of these zones is part of EPA's Source Water Protection Program. "Time-of-travel" zones define how long it would take contamination to reach the well at 10 year intervals.	
KC_WHPA_1YR_ AREA	Well Head Protection Areas are designed to show zones where contamination can flow into a well. Delineation of these zones is part of EPA's Source Water Protection Program. "Time-of-travel" zones define how long it would take contamination to reach the well at 1 year interval.	

Name	Description	Update Frequency
KC_WHPA_5YR_ AREA	Well Head Protection Areas are designed to show zones where contamination can flow into a well. Delineation of these zones is part of EPA's Source Water Protection Program. “Time-of-travel” zones define how long it would take contamination to reach the well at 5 year intervals.	
KC_WHPA_6MO_ AREA	Well Head Protection Areas are designed to show zones where contamination can flow into a well. Delineation of these zones is part of EPA's Source Water Protection Program. “Time-of-travel” zones define how long it would take contamination to reach the well at 6 month interval.	
NDA_POINT	Neighborhood drainage projects of Stormwater Services Section.	As needed
STORM_FAC_ POINT	Commercial and residential stormwater facilities.	Weekly
STORMREG_ POINT	Regional stormwater facilities for the control of stormwater or for water quality improvement	As needed
WTR_SERV_AREA	Water Service Areas	None planned

* Pierce and Snohomish: Annually, King: As needed.
** As required due to regulations.

Agency

Name	Description	Update Frequency
JURIS00	Incorporated Cities Year 2000	None planned
JURIS90	Incorporated Cities Year 1990	None planned
APD_RIPAR100	APD Riparian Condition Units - 100 ft stream buffers	None planned
APD_RIPAR25	APD Riparian Condition Units - 25 ft stream buffers	None planned
APDLU	APD General Landuse	None planned
CAO_AQUATIC	Critical Areas Ordinance Aquatic Buffer Zones	
CAO_BASINS	Critical Areas Ordinance	
BEAR_LOCS	Bear Sighting Locations	None planned
BUGS_MAA	Benthic Macroinvertebrate Sampling Sites	None planned
LNDCOV01	King County 2001 Landcover	None planned
LNDCOV95	King County 1995 Landcover	None planned
SWDM_BOGS	2005 Surface Water Design Manual Bog Wetlands	None planned
SWMDATA	Surface Water Management Parcels	None planned
GREEN_HIST	Historical Green River	None planned
MAJ_STRM	Major Streams and Rivers, a sub-set of WTRCRS	As needed
RIVER_MI	River Miles derived from WTRCRS	As needed
RIVERFAC	King County River Facilities	As needed
COSTSHARE	Cost-Share Parcels	As needed
CUT_AG	Current Use Taxation Program: Agricultural Properties	As needed

Name	Description	Update Frequency
CUT_FOREST	Current Use Taxation Program: Forestry Parcels	As needed
CUT_PBRS_TIM	Public Benefit Rating System and Timber Land Program Parcels	As needed
DAIRIES	Dairies and Commercial Agricultural Operations	As needed
FARMPLAN	Parcels with Farm Plans	As needed
FISH7	Fish distribution in WRIA 7	None planned
FISH7_PT	Fish distribution in WRIA 7, shapefile points	None planned
FISH7_SOURCE	Fish Distribution (WRIA 7) Source Table	None planned
FISH8	Salmon Distribution (WRIA 8)	None planned
FISH8_PT	Salmon Observation Locations (WRIA 8)	None planned
FISH8_PT_DAT	Salmon Observations Data Table (WRIA 8)	None planned
FISH9	Distribution of 7 salmon species in WRIA 9 streams	None planned
FISH9_PT	Point observations of 7 salmon species in WRIA9	None planned
FISHV	Distribution of 5 salmon species in Vashon streams	As needed
FISHV_PT	Point observations of 5 salmon species on Vashon.	None planned
FTA	Forestry Technical Assistance	As needed
LIVESTOCK_VFD	Verified Livestock Parcels	As needed
RFFA	Rural Forest Focus Areas (as adopted in 2001 Comp. Plan)	As needed
TAYLOR_STANDS	Forest Stands on Taylor Mountain	As needed
FCZD	Green River Flood Control Zone	None planned
MCGARVEY_OS	4:1 Parcels in the Cedar River Basin	As needed
POLYGON_OS	4:1 Parcels in the Cedar River Basin	As needed
RDP_BND	Rural Drainage Program Service Areas	As needed
DRAINAGE_PROP	King-County Owned Drainage Properties	As needed
FLOOD_PROP	Flood Hazard Reduction Section Flood Buyout Parcels	As needed
PARCEL_DATA	Enterprise PARCEL data layer with additional attributes	Quarterly
BATH_TOPO	Puget Sound Bathymetry	None planned
CONTOUR40	King County Contours - 40'	None planned
LKSAMBATH	Lake Sammamish Bathymetry	None planned
PS_BATH10	Puget Sound Bathymetry - 10 Foot Contours	None planned
PS_BATH20	Puget Sound Bathymetry - 20 Foot Contours	None planned
PS_BATH5	Puget Sound Bathymetry - 5 Foot Contour	None planned

5.4.9 DNRP – Parks and Recreation Division

Enterprise

Name	Description	Update Frequency

Name	Description	Update Frequency
PARK	Parks within King County, including those which are owned and/or maintained by other agencies and jurisdictions	As Needed
PARK_FAC	King County Park Facilities	As Needed
TRAIL	Trails in King County	As Needed

Agency

Name	Description	Update Frequency
ARMS_SERVICE	Parks Financial Zoning Areas	As Needed
ATLASANNO	Parks Atlas Annotation	As Needed
MAINTDIST	King County Park Maintenance District Boundaries	As Needed
PARK	All King County Parks	As Needed
PARKPLAN	King County Parks Planning Information	As Needed
PARKS_P	All King County Park Properties	As Needed
PROPTRAIL	King County Trails Plan	As Needed
PSAFI_POINT	King County Park Facilities - points	As Needed
PSAFI_POLY	King County Park Facilities - polygons	As Needed
RESOCOORD	King County Park Resource Coordinator District Boundaries	As Needed
SP_SITES	County-wide Active Sport Sites	As Needed
TRAIL	All King County Trails	As Needed
WTANNOAT	County-wide Water Annotation Coverage	As Needed

5.4.10 DNRP – Solid Waste Division

Enterprise

- No enterprise data are maintained at present by the Solid Waste GIS Program.

Agency

Name	Description	Update Frequency
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.	As needed
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.	Quarterly
CLCP_SITES	Sites of cleanup events conducted under the Community Litter Cleanup Program.	Quarterly
SW_FACILITIES	Locations of Transfer Stations, Drop Boxes, Landfills (both closed and active), and Recycling Facilities operated by SWD in King County.	As Needed

Name	Description	Update Frequency
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.	As needed
SW_FACILITIES_ PROP	Parcel-based information for locations of Transfer Stations, Drop Boxes, Landfills, and Recycling Facilities operated by SWD in King County.	As needed

5.4.11 Department of Public Health

Enterprise

- None for 2007.

Agency

Name	Description	Update Frequency
CLINICS	King County Public Health Clinics	As Needed
MEDIC UNITS	King County Medic Units	As Needed
HOSPITALS	King County Trauma Hospitals	As Needed
GEOCODES	King County EMS Geocode Grid	As Needed

5.4.12 DOT – Roads Services Division

Enterprise

Name	Description	Update Frequency
MONUMENT	Point shapes representing RSD/Survey Section surveyed monuments.	Annually
TRANS_NEED	Location of the 2006-2008 Council adopted Transportation Needs projects for King County including funded (Capital Improvement Program-CIP) and unfunded projects.	Annually
REFGRID	Quarter section, section and township reference grid for King County.	None Planned
VERTICAL	Vertical control for ortho photography.	

Agency

Name	Description	Update Frequency
ST_CRIS	Line shapes representing King County's County Road Inventory System (CRIS). Last year the Engineering Services Section completed a major data conversion project in collaboration with KCGIS Center associated with the CRIS.	Daily
KGCO_DS	Soils data for King County. Seamless soils shapefile for entire county.	None planned

Name	Description	Update Frequency
SIGNALS	Point shapes representing King County Countywide maintained signals.	Quarterly
STRIPING	Line shapes representing installation and maintenance of Traffic Section maintained roadway marking features.	Annually
HARS	Line shapes representing King County Countywide High Accident Roadways.	Annually
HALS	Point shapes representing King County Countywide High Accident Locations.	Annually
CIPPLINE	Line shapes representing King County Capital Improvement Projects.	Daily
CIPPATH	Line shapes representing King County Capital Improvement Sub-Projects.	Daily
CIPPOINT	Point shapes representing King County Capital Improvement Projects.	Daily
ADOPT	Line shapes representing the adopted sections of King County roadways countywide.	Annually
PATHWAY	Line shapes representing Countywide School Pathway Projects.	Monthly
LIFELINE	Line shapes representing Lifeline Routes; it is a cooperative venture between the Federal Emergency Management Agency (FEMA) and King, Pierce, Kitsap, and Snohomish Counties. Its goal is the identification and coordination of lifeline routes between and among state, County, and local emergency managers.	Annually
BRIDGE	Point shapes representing King County-maintained Bridges.	Annually
"BY BASIN" MANY THEMES	Point and line shapes that represent King County's drainage inventory National Pollution Discharge Elimination System (NPDES).	Monthly
3P	Line shapes showing King County Countywide proposed pedestrian improvement projects.	Monthly
NEP	Line shapes representing King County Countywide Neighborhood Enhancement Projects.	Monthly
COUNT_DATA	Point shapes representing Countywide year 2005-1995 Historical Count Locations w/data attached.	Annually
RD_EIS	Point shapes representing RSD Environmental Unit's impact statements.	Monthly
RD_BA	Point shapes representing RSD Environmental Unit's biological assessments.	Monthly
RD_PROP	Point shapes representing RSD-owned properties.	Monthly
FREIGHT_GOODS	Line shapes representing routes designated by the state as roadways that carry freight and goods.	Annually
GUARDRAIL	Line shapes representing the King County Inventory of Countywide guardrail.	Monthly
COUNT_ LOCATIONS	Point shapes representing RSD Traffic Section Historical Count Locations w/o data attached.	Annually
LAASETHNSP	Ethnographic place names for King County.	None planned
PREHIST_ARCH	Recorded prehistoric archaeological sites for King County.	Quarterly

Name	Description	Update Frequency
HIST_ARCH	Recorded historic archaeological sites for King County.	Quarterly
CLP	Recorded Cultural Resources managed by Seattle Public Utility (SPU)	As needed*
BURKEBLUEPOLY	Heretofore unrecorded archaeological sites for King County.	As needed*
BURKEGRAY POLY	Heretofore unrecorded archaeological sites for King County.	As needed*
LANDFORM	Paleo-landscape features (late Pleistocene and Holocene)	None planned
LAASTCPSP	Areas of traditional cultural and religious significance for Native American groups in King County	None planned
GLOETHNOTRAIL	Cultural features digitized from Government Land Office (GLO) maps for use as shape files (feature data sources).	None planned
GLOHISTRD	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned
GLOHISTPT	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned
GLOETHPOLY	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned
GLOHISTPOLY	Cultural features digitized from GLO maps for use as shape files (feature data sources)	None planned
CRREPORTS	Areas of previous cultural resource surveys	None planned

* When data are provided by agency.

5.4.13 DOT – Transit Division

Enterprise

Name	Description	Update Frequency
BENSON_LINE_ STATIONS	Point shapes representing The George Benson Waterfront Streetcar Line Stations.	As Needed
BUS_BASES	Point shapes representing bus base locations (also called depots or garages). BUSBASE attributes include name, on street, cross street, and address.	None planned
BUSSTOP	Point shapes representing Transit bus stops derived from TNET as a distance from an intersection along a link. BUSSTOP attributes include on street, cross street, stop type, accessibility, authorization, jurisdiction, date activated, date deactivated, bearing, distance from cross street, attributes pertaining to the stop sign and schedule holder and how they are affixed, usage by other transit properties, number of shelters, paint length, ride free area flag, side of the street, length of stop, fare zone, and zip code.	Daily
EMITTER	Point shapes representing Transit radio frequency emitters in support of Automatic Passenger Counter and Automatic Vehicle Location systems. EMITTER attributes include on street, cross street, associated link id, and associated bus stop id.	Daily

Name	Description	Update Frequency
FACILITY_ PLANNER_ DISTRICTS	Polygon shapes representing Transit Planning District as defined by Facility Planners.	Monthly
LANDMARK	Point shapes representing landmark locations. This layer directly supports Transit's trip planning system. LANDMARK attributes include name, abbreviated name, address, symbolization characteristics, classification, on street, cross street, and address. LANDMARK also has an associated alias table permitting a location to be referenced by multiple names.	As Needed
NEIGHBORHOOD	Polygon shapes representing neighborhoods. This layer directly supports Transit's trip planning system. NHOOD attributes include the name of the neighborhood.	None planned
NEIGHBORHOOD_ CENTERS	Point shapes representing the business centers for neighborhoods. This layer directly supports Transit's trip planning system. Neighborhood_Centers attributes include the name of the neighborhood and the address of the business center.	None planned
PARKRIDE	Point shapes representing park and ride lot locations. PARKRIDE attributes include name, on street, cross street, address, zip code, district, ownership (permanent or leased), and owner.	Quarterly
RIDE_FREE_AREA	A polygon shape representing the Transit ride-free-area bound by TNET features.	Annually
SIGNAL	Point shapes representing traffic signal locations derived from STREET (street nodes retired 2006) and traffic signal key.	Annually
SUB_STATIONS	Point shapes representing electrical distribution nodes for overhead wire trolley system. SUBSTATN attributes include name, address, type, supplier, label, and kilowatt-hours.	Annually
TIMEPOINT	Point shapes representing Transit timepoints derived from TNET (tpoints) and timepoint key. These are locations where expected bus arrival times are calculated.	Daily
TPIPATH_DHD_ CUR	Line shapes representing Transit non-revenue service route footprint derived from TNET as an ordered set of links.	Daily
TPIPATH_REV_ CUR	Line shapes representing Transit revenue service route footprint derived from TNET as an ordered set of links.	Daily
TRANS_ NETWORK	Line shapes representing the Countywide Transportation Network (TNET), including multi-modal features such as for vehicular, rail, ferry, pedestrian, and equestrian. The Transportation Network is key to the Division's business. TNET (line) attributes include name, two alias designations, address (theoretical & actual), zip code, King County road classification, census feature class codes, grade (> 6%).	Daily
TRANS_POINT	Point shapes representing intersections of line shapes. TRANS_POINT attributes include transit timepoint key and X/Y coordinates.	Daily
TRANSIT_ PLANNING_ AREAS	Polygon shapes representing Transit planning districts as defined by Service Planners.	None planned
TRANSIT_ CENTERS	Point shapes representing transit center locations. TRNSCNTR attributes include name, on street, cross street, and address.	Annually

Name	Description	Update Frequency
TRANSIT_ FACILITIES	Point shapes representing transit facilities other than P&R, bus bases, and transit centers. TRNSFACL attributes include name.	None planned
TROLLEY	Line shapes representing streets that have overhead trolley electrical lines derived from TNET. TROLLEY attributes include the TNET primary key TLINK.	Annually
TUNNEL	A polygon shape representing the Transit tunnel and Tunnel Stations.	None planned

Agency

Name	Description	Update Frequency
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
AIRPORTS	Polygon features representing local and regional airports.	Annually
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
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
"Bus Stops"	Although current bus stops are distributed to the enterprise, several derivative layers are created for internal business purposes: ▪ ZONES: Point shapes representing all active and inactive Transit bus stops derived from TNET as a distance from an intersection along a link. ▪ ACTIVESTOPS: Point shapes representing active Transit bus stops derived from TNET as a distance from an intersection along a link. ▪ INACTIVESTOPS: Point shapes representing inactive Transit bus stops derived from TNET as a distance from an intersection along a link. ▪ CLOSEDSTOPS: Point shapes representing closed Transit bus stops derived from TNET as a distance from an intersection along a link. ▪ PENDINGSTOPS: Point shapes representing pending Transit bus stops derived from TNET as a distance from an intersection along a link. ▪ PLANNEDSTOPS: Point shapes representing planned Transit bus stops derived from TNET as a distance from an intersection along a link.	Daily

Name	Description	Update Frequency
COMFORT_ STATIONS	Point shapes representing transit comfort stations (driver restroom facilities). COMFSTN attributes include owner and contact information, availability during the day, routes that have access on street, cross street, and address.	Monthly
DART	Polygon shapes representing Dial-a-Ride service area for Transit.	Quarterly
FAREZONE	Polygon shapes representing Transit fare zones for King County Metro, Community Transit, Pierce County Transit, and Sound Transit.	Annually
INCIDENT	Point shapes representing transit security incidents. INCIDENT attributes include date, route characteristics, on street, cross street, and items describing the incident type.	Daily
TRANSIT_POLICE _DISTRICTS	Polygon features representing King County Metro Police patrol districts.	As Needed
"Routes"	Although current revenue service and deadhead paths are distributed to the enterprise, several derivative layers are created for internal business purposes: ▪ TPIPATH_REV_NXT: Line shapes representing Transit revenue service route footprint for the following (next) transit service change. These shapes are derived from TNET as an ordered set of links. ▪ TPIPATH_DHD_NXT: Line shapes representing Transit non-revenue service route footprint for the following (next) transit service change. These shapes are derived from TNET as an ordered set of links. ▪ TPIPATH_REV_ALL: Line shapes representing Transit revenue service route footprint for all historical transit service changes. These shapes are derived from TNET as an ordered set of links. ▪ TPIPATH_DHD_ALL: Line shapes representing Transit non-revenue service route footprint for all historical transit service changes. These shapes are derived from TNET as an ordered set of links.	Daily
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
SERVICE_ QUALITY_ DISTRICTS	Polygon features representing King County Metro Service Quality dispatch districts.	As Needed
ST_LINK_LIGHT_ RAIL	Line features representing Sound Transit Link light rail routes obtained from Sound Transit.	Quarterly
ST_LINK_LIGHT_ RAIL_STATIONS	Polygon features representing Sound Transit Link light rail stations obtained from Sound Transit.	Quarterly
ST_REGIONAL_ EX_BUS_ROUTES	Line features representing Sound Transit regional express bus routes obtained from Sound Transit.	Quarterly
ST_SOUNDER_ COMMUTER_RAIL	Line features representing Sound Transit Sounder commuter rail routes obtained from Sound Transit.	Quarterly

Name	Description	Update Frequency
ST_SOUNDER_ COMMUTER_ RAIL_STATIONS	Point features representing Sound Transit Sounder commuter rail stations obtained from Sound Transit.	Quarterly
XFERZONE		Daily

5.4.14 DOT – King County International Airport

Enterprise

- None.

Agency

- None.

5.4.15 King County Sheriff's Office

Enterprise

- None.

Agency

Name	Description	Update Frequency
REPORTING DISTRICTS	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
PATROL DISTRICTS	A shape file that is based on the Reporting Districts file. A patrol district consists of one or more reporting districts. A patrol district is the primary level of geography defined/used by the reactive patrol portion of the Sheriff's Office.	As needed

* Starting in 2007.

5.4.16 Metropolitan King County Council

Enterprise

- The GIS program for the Metropolitan King County Council does not include activity in this area.

Agency

- The GIS program for the Metropolitan King County Council does not include activity in this area.

5.4.17 Office of Budget

Enterprise

Name	Description	Update Frequency
URB-V&R	Vacant and redevelopable land supply database to be reported under Growth Management Act Buildable Lands amendment. Prepared in coordination with DDES and Assessor database.	As needed*

Name	Description	Update Frequency
PAA MAJOR-PAA	Potential annexation areas and ten large PAA areas. Derived from Growth Management Act boundaries and city boundaries files.	As needed
REC-LOTS	Recorded number of formal plats and lots in King County, from Recorder's Office.	Annually

* Update due in 2007 for reporting in 2007.

Agency

- None.

5.4.18 Department of Community and Human Services

Enterprise

- No activity at this time.

Agency

Name	Description	Update Frequency
REPORTCARD	Report Card database contains contract and project level data with aggregated client demographics, service levels and outcomes. Maintained by CSD.	Bi-Annually
CAPITAL PROJECTS	Street addresses of capital projects. Maintained jointly by HCD/CSD.	Annual
LOW_MOD_ HOUSEHOLDS	HUD specially tabulated census data on location of low to moderate income households in King County by percentage. Maintained jointly by HCD/CSD.	Decennially
BED_NIGHTS	Data maintained on bed nights of homeless housing and client maintenance of permanent supportive housing. Maintained jointly by HCD/CSD.	Monthly
SERVICE_ CONTRACTS	Contract data on service delivery and program effectiveness. Maintained by DDD.	Annual
CLIENTS	Informix database maintains client level service data protected by HIPPA. Maintained by MHCADS.	Monthly
PUB_DEFENSE	Informix database maintains client intake data and assignment to contracted public defense firm. Maintained by MHCADS.	As needed

5.5 Maintained Applications

5.5.1 KCGIS Center

Name	Description	Language
AvLibShp and *AvLibImg*	These ArcView 3.x extensions provide users with streamlined methods to access and display layers in the KCGIS Spatial Data Warehouse (SDW). In 2004 the *AvLib* application was split into two separate but complimentary extensions in order to make potential future updates easier to distribute. *AvLibShp*, the KC Shapefile Library extension, enables users to: browse spatial data layers by subject and feature type, with data layers identifiable by alias, filename, or description; add themes to a map view and automatically set various theme properties, such as symbology; link data to metadata via an HTML browser; load a standard view from a library of user defined views; store a map view locally or submit a view to the KCGIS SDW so that other users may access it; and generate maps using standard layouts. *AvLibImg*, the KC Image Library extension, enables access to image data by providing the user with menu choices and tools for one click access to any image data on the system. These extensions are in a maintenance phase and will only by updated in 2007 as needed to keep the extensions operable.	Avenue
KC Parcel Tools	The *KC Parcel Tools* extension will become obsolete once RECDNET is no longer maintained or stored on \\wildfire. This ArcView 3.x extension provides users with an easy to use interface to selected Assessor's data in the KCGIS Spatial Data Warehouse. There are five main functions of this application, which include: queries based on a known PIN or taxpayer name; information lookups on previously selected parcels; access to the cadastral base framework LIBRARIAN tiles with tools for loading and managing arc and annotation features; generating quarter section maps of cadastral base framework data with minimal user input; and generating formatted mailing labels for selected parcels. This extension reads tabular data from the SQL Server database and accesses shapefiles from \\gisdw\kclib\plibrary2. RECDNET tiles (coverage format) are still accessed directly from \\wildfire. This extension will become obsolete in early 2007 when RECDNET is no longer maintained or stored on *WILDFIRE*.	Avenue
iMAP	*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. At the end of 2006 there are 9 map sets. *iMAP* includes a property search tool that is fully integrated with the basic application and thus accessible in all Map Sets. A variety of other data query tools are also part of the standard *iMAP* user toolbox, including buffering, geocoding, and more. When a parcel is selected, URL links are presented, which access a variety of tabular information maintained by several King County agencies. A map output function is also included. The URL for *iMAP* is http://www.metrokc.gov/gis/mapportal/iMAP_main.htm.	ArcIMS, HTML, JavaScript, XML

Name	Description	Language
Parcel Viewer	*Parcel Viewer* is a Web-based application targeting property searches. This application does not require a fast Internet connection. Users can navigate the map and select parcels, or search for properties using address, cross streets, or parcel number as input. Buffering and map output features are also included. Like *iMAP*, when a parcel is selected URL links are presented to access a variety of tabular reports. The URL for *Parcel Viewer* is http://www.metrokc.gov/gis/mapportal/PViewer_main.htm.	ArcIMS, HTML, ASP
Districts and Development Conditions Report	The *Districts and Development Conditions Report* provides information on a property's characteristics, such as: parcel number, school district, zoning designation, jurisdiction, water district, comprehensive plan designation, ZIP code, sewer district, agricultural production district, county council district, council member, and watershed. Written in ASP and utilizing ArcIMS, it allows anyone with a Web browser to access the page and enter either an address or a parcel number. If a matching record is found, the user is then given a full report of associated data for that property. This page will also take a parcel number as an argument in the URL, so other sites or applications can link into the report. *iMAP* and *Parcel Viewer* provide links to this report.	ArcIMS, ASP, HTML
KC Property Report	*KC Property Report* is an on-line query tool into the King County Assessor tabular data stored in the KCGIS SQL Server RDBMS. Written in ASP, it allows anyone with a Web browser to access the page and enter either an address or a parcel number. If a matching record is found, the user is given a full report of associated Assessor data for that property. This page will also take a parcel number as an argument in the URL, so other sites or applications can link into the report. *iMAP* and *Parcel Viewer* provide links to this report.	ArcIMS, ASP, HTML
Census Viewer	*Census Viewer* is web-based application using ArcIMS that allows the user to view maps and tables of more than 100 community census data indicators for 77 defined places throughout all of King County. Data are displayed at the tract or block group level within each place. *Census Viewer* is designed to be a resource for community organizations, government agencies, researchers and community residents working to strengthen families and neighborhoods. It provides easy access to current data about the population and housing characteristics of the various cities, towns, communities, and neighborhoods of King County.	ArcIMS, ASP, HTML, JavaScript
Inview	*Inview* will be retired with the deployment of KCAM (the King County Assessments Mapping cadastral geodatabase). *Inview* (INtegration VIEWer) is designed to allow users to view edits applied to the cadastral base framework (RECDNET) and cadastral base framework annotation (RECDANNO). Use of *Inview* increases the overall efficiency of the submittal and integration procedure by decreasing the time necessary to perform QA checks and replacing the need for QA plots. *Inview* facilitates communication between agency users and the KCGIS Center integration application maintenance staff by providing a consistent, onscreen, visual checking device to quickly identify and document problems with	AML

Name	Description	Language
	submittals.	
MaintRec	The *MaintRec* tools will be retired once RECDNET and RECDANNO are no longer maintained. *MaintRec* provides King County agencies with a set of tools to populate tiled edit coverages with new or updated features. The edit coverages provide the KCGIS Center and the KC Assessor with the necessary information to perform their shared duties of maintenance and integration for the RECDNET and RECDANNO layers. *MaintRec* includes the following interactive tools: extract RECDNET and RECDANNO features by user specified extents; import ArcInfo coverages, and translate DXF files and ArcInfo export files into coverages; display, select, add and edit arc and polygon labels and their associated attributes; display, select, add and edit subclass annotation and their associated symbol markers and leaders; execute quality assurance checks on edits, facilitate error detection and resolution, generate quality assurance check plots and error reports and generate finish plots; submit finalized edits to the proper submittal directory.	AML
Integrate	The *Integrate* routines will be retired once RECDNET and RECDANNO are no longer maintained. The *Integrate* routines provide multi-user editing capabilities in a LIBRARIAN environment. These routines test and incorporate the updates generated by King County agencies for their layers derived from the cadastral base framework RECDNET and RECDANNO layers. The routines are called from the cron_update script as a part of the nightly database update processing. During integration all RECDNET submittals for each tile are combined into a single coverage. Using the combined coverage all changes are made to a copy of RECDNET. Data integrity checks are made to the new RECDNET coverage and if it passes, it is positioned for the update cycle to post into the KCGIS Spatial Data Warehouse (SDW). Coverages that fail the QC checks are “hung” and examined and fixed by the Cadastral Base Coordinator. RECDANNO submittals are also processed by this AML program in a similar manner.	AML
Update	The *Update* routines will be retired once RECDNET and RECDANNO are no longer maintained. The *Update* routines are varied and perform many functions to update the KCGIS Spatial Data Warehouse. The routines are called from the cron_update script as a part of the nightly database update processing. The routines find submitted keyfiles (tiled and untiled), ArcInfo export files, and coverages (tiled and untiled) in the posting directories; perform validation tests on the files; and post them as coverages and corresponding shapefiles to the KCGIS Spatial Data Warehouse. Various lookup tables are also updated to reflect the posted changes.	AML, Avenue, UNIX script
PostRep	*PostRep* is the nightly posting and replication routine for the KCGIS Spatial Data Warehouse. It replaces the *Integrate* and *Update* cycle found on *WILDFIRE*. 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”	Python, Transact SQL, VB .net

Name	Description	Language
	to the public library and "Replicated" into an appropriate shapefile format. *PostRep* is written in Python scripting language to take advantage of the robust geoprocessing programming model specifically designed for use with Python by ESRI.	
SDE2Shp	*SDE2Shp* analyzes fail-over status between SDE databases (GISPROD and GISSQLDW) and synchrony with Plibrary2 shapefile derivatives.	AML, Python
Directory2XLSCrossCheck	*Directory2XLSCrossCheck* tracks all changes in the Non-KCGIS shapefile library relative to the master control table. Includes analysis of dynamic metadata linkages to maintain uninterrupted access to documentation.	AML, Python
MenuFindsLib	*MenuFindsLib* builds menu.dbf to support legacy AvLib ArcView 3.x application for both KC-maintained and Non-KCGIS data. Analyzes table for a range of layer consistency, synchronization and metadata quality issues.	AML, Python
Plib3Validate	*Plib3Validate* is customized to review and flag inconsistencies within the raster library of the SDW. Requires future updates to track changes to data across all tiling levels.	AML
MetaValidate	*MetaValidate* provides more in-depth analysis of state of layer and raster metadata. High-level issues are evaluated in the routines described above, while this routine standardizes error reporting generated by ArcCatalog metadata parser. An in-progress module will also cross-check item and coded-value domain consistency between a layer and its metadata.	AML, Python
StewardTool	*StewardTool* is the application used by data stewards to register new spatial and tabular datasets, update distribution requirements for new and existing layers, create, delete and update staff information, update agency information, and submit a dataset to the KCGIS Spatial Data Warehouse. *StewardTool* replaces the now-defunct *SiteTool* (see http://gisdw/Intranet/apps/StewardTool/). *StewardTool* will be updated as needed to provide the user front-end for the planned enhancements to the nightly Generate routines.	ASP .NET
Spatial Data Catalog Interface and Metadata Management	During 2006 all Oracle-based layer metadata was converted to XML- format files for incorporation into the SDE Geodatabase environment. These XML metadata files are also published to the extranet to support the Spatial Data Catalog (SDC). A new front-end application dynamically hosts a redesigned catalog interface and a new KCGIS metadata style sheet. Modifications to the style sheet include adoption of ArcGIS/SDE descriptive elements and a thumbnail image of the dataset, the latter assisting users in understanding the extent and detail of the data. Backend processes produce portable FGDC HTM documents that can be accessed from links within the style sheet. These processes also check for consistency across all metadata support files. After some additional testing, the data catalog will be extended to support table and SQL tabular and spatial view documentation.	XLST, ASP
GIS Data Locator Search Application	This application serves as a supplement to the enterprise Spatial Data Catalog (SDC). It provides a query interface to access information about all spatial data maintained or managed by the	ASP .NET, SQL Server

Name	Description	Language
	KCGIS Center, as well as those Agency data sets described in the preceding year's O&M Plan. Application functionality includes keyword/wildcard search capability and a link to the metadata for each layer. The database that supports the application catalogs all inventoried vector and raster data across all sources, regardless of whether it is loaded to the SDW or not. It also includes records for all table and SQL view fields (items) and for all attributes definitions and domains, extracted from enterprise metadata.	
Project Image Library Database and Query	The Project Image Library serves as an extension to the SDW enterprise orthoimagery and raster data library (i.e., Plibrary3). It is available via the SDW KCLIB share and provides access to all 'project-related' imagery data sets. Many of these data sets are of the same vintage and have equal or better resolution than the enterprise ortho data sets, but cover too limited an extent to justify comparable management in the enterprise database. These data sets are accessible via a suite of descriptively-named image catalogs that assist in locating a data set(s) of the correct vintage and extent. Due to the large number of data sets and their irregular and overlapping extents, an ArcGIS mxd or lyr file can be loaded which provides the spatial extent index for all data sets. The index is hyperlinked to metadata that provides additional details as well as a visual overview of the data quality and extent, assisting the user in further determining the appropriateness of the data set to their need. The Project Image Library inventory is also cataloged via the Intranet SDC portal at http://gisdw/intranet/DataTopics/ProjectImageData/htmserve/imageinventory.htm.	ArcGIS MXD and lyr file with embedded metadata hyperlinks
KCGIS Data Dictionaries	Sufficient enterprise metadata has been structured and populated to build a series of dictionaries containing descriptive data set elements beyond the basic information stored in the primary control table. These data dictionaries include information about all enterprise database objects: layers, tables and spatial and tabular views, extracted from the object's xml-formatted metadata. Additional value built into the metadata during updates by data stewards is automatically incorporated into the data dictionaries. Beyond a basic dictionary of key FGDC metadata elements, additional dictionaries document all entity attributes, enumerated attribute values, and place and theme keywords. Dictionary content exists as stand-alone spreadsheet-formatted tables and as records in the GIS DataLocator database. Statistics regarding the frequency of occurrence of common field names, field types and other information useful in new database design efforts can also be found on the Data Dictionary page at http://gisdw/intranet/DataTopics/DataDictionary/index.htm, accessible from the SDC intranet portal http://gisdw/intranet/sdc/index.htm.	Python, AML
Plibrary2Snapshot	A periodic (2-week to 1-month frequency) snapshot of the contents of Plibrary2 is captured as compressed zip files. This data snapshot stores only those shapefiles (and dbf tables) that have changed since the last snapshot. Approximately every 6 months the entire Plibrary2 database is captured, and then incremental additions are stored until the full baseline capture is made again. The purpose of	AML, WINZIP

Name	Description	Language
	this snapshot is not to replace or supplement standard system backup policy or procedures. It was initially begun to make recoverable images of the database during the Software Migration project when extensive changes were being made. Now it serves primarily as a database for retrieving earlier versions of datasets. This may be to view data that has been retired or for the purposes of comparing an earlier version of a data set to the current 'live' version on Plibrary2. The archived shapefiles are stored offline on DVD, and can be obtained by contacting the KCGIS Center Data Coordinator. An online catalog of all full and incremental snapshots records can be viewed at: http://gisdw/intranet/DataTopics/Plibrary2Snapshot/Plibrary2SnapshotIndex.xls.	
ArcSDE scripts	The ArcSDE operating system command line scripts load data into ArcSDE. The parcel and parcel address layers, PARCEL and PIN_ADDRESS respectively, are loaded to the KCGIS Center Spatial Data Warehouse via ArcSDE scripts as well as spatially enabled views. Spatially enabled views are tabular data joined to vector data to create storage efficient server-side read only views that can be accessed by ArcGIS clients.	SDE (OS Command Line)
DTS Scripts	Data Transformation Services (DTS) is a scripting environment embedded in SQL Server for batch data loading. There are currently four enterprise DTS scripts that run on a regular or as needed basis. Assessor Tables – Runs weekly. Assessments' DTS package pushes tabular data from the Assessors database server to GISPROD.PLIBRARY and the KCGIS Center's DTS package replicates them to GISSQLDW.PLIBRARY and to the file based DBASE tables. Address Tables – Runs Weekly. DTS packages on GISPROD load and merge address data from Assessments and DDES address tables. GIS Data Locator – Runs as needed, when updates occur to enterprise data and data received from non-King County sources. REALS data – Runs as needed, when updates occur to Records and Elections voting districts data.	SQL Server DTS
KcamEditExtension	The *KcamEditExtension* is a toolset extension for ESRI's ArcMap. It contains several editing tools for King County Assessor's drafting group to help maintain the cadastral database. It contains the following: Userid and Date Stamper: For every change or addition to the cadastral database, when the extension is enabled, it will populate the userid of the editor and the date of the addition or change in the appropriate database fields. ZoomerTool: This is a dockable window that allows the editor to zoom to a particular PIN or PLSS quarter section within King County. Misc Warnings: Window popup warnings are embedded within the extension. For example, whenever an .mxd document is opened, a	VB .NET

Name	Description	Language
	popup window will warn the user to change their version from the Edit version to one of their own versions. It will then switch the Table of Contents tab from Display to Source so they can easily change versions.	
KCGisDateStamper	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.	VB .NET
Get Map Series Page Numbers	A toolbox script that allows KCA to identify the pages of their QS Parcel Map Book that contain parcels which have been updated within a certain time frame.	Python
Check Fields	A toolbox script that allows King County GIS database stewards to check their data for reserved words.	Python

5.5.2 Department of Assessments

Name	Description	Language
QSMap	Produces official Assessor QS map and generated PDF file for web display. Under reconstruction.	Python
KCAppraiser	ArcView3 tools for accessing GIS data	Avenue
KingView	This application was developed by Assessments' Information Services Division for appraisers to use in valuing property and defending appeals. Additionally, it can be used by other staff as a tool for running quality assurance checks against the spatial and tabular data.	VB, MapObjects
RealProp	This is the primary data viewing tool used by Assessments. It was developed by Assessments' Information Services Division. It has been spatially enabled by giving users access to shapefile and digital orthophoto data as well a link to ParcelViewer. Users can generate shapefiles using this application.	VB, MapObjects
ParcelActivity	This application is used to view and query parcel maintenance items and events. It was developed by Assessments' Information Services Division. It has been spatially enabled by giving users access to shapefile and digital orthophoto data as well as providing a means for generating shapefiles.	VB/ MapObjects
ViewControl	This application was designed for the data administrator to set up and control the display of layers available to the KC Appraiser extension. This application was written by the KCGIS Center with Client/Services funding.	Avenue
LotSqft	Used for updating lot size information in the SQL server tables from annotation placed during the cadastral maintenance. Functionality to be replaced in 2007.	Aml

5.5.3 Department of Development and Environmental Services

Name	Description	Language
GISMO	A Front End Application. In release 1.0 GISMO implements three reports: Parcel Information Report; Permit Information Report; and Legal Information Report. These features are provided as web services from our Intranet web application server. They are called from within our aging ArcView 3.x application Base2. When Base2 is retired they will be called from modules that compose future releases of GISMO. The reports are written using VB.Net and hit against ArcIMS, INFORMIX, and MS SQL Server data to provide reports with the current data and reduce data redundancy.	VB.Net
Base2	A Front End Application. "Base2" is a customized ArcView project used by staff at DDES to locate and determine the characteristics of a parcel and its vicinity. "Base2" has been the primary tool available to GIS end-users at DDES for the last several years. Lagging performance has always been an issue with "Base2" as response times to queries can be frustratingly slow. To reduce end-users reliance on "Base2" much of its functionality and information content has been ported to quicker browser-based applications such as iMAP. The adoption of ArcSDE for GIS data storage at DDES gives further incentive to replace "Base2" and the underlying ArcView 3.1 software, which can not access data from ArcSDE. This application is planned to be retired after complete implementation of GISMO.	Avenue
Autoplot	A Front End Application. "Autoplot" is a customized ArcView project that provides a quick and easy method for printing a series of maps that are used during field or site plan review. Each map in the series depicts a different set of environmental or regulatory features that may affect site development. While based on the same code as "Base2", "Autoplot" produces complex maps that would be difficult to implement in ArcIMS. As a result "Autoplot" will be retained longer. This application is planned to be retired after a replacement application has been developed. Currently ArcServer is being evaluated as a possible development solution.	Avenue
Development Conditions Search Engine	A Front End Application. The "Development Conditions Search Engine" is an Internet application using Cold Fusion and Microsoft Access. It provides parcel specific development condition information for unincorporated King County in tabular format with access to scanned and indexed map images.	Cold Fusion
iMAP Sensitive Areas	A Front End Application. Sensitive Areas is a map set incorporated into iMAP, King County's ArcIMS Internet application. It is primarily used to obtain information on various types of sensitive areas and environmental layers in unincorporated King County. The map sets are designed to provide King County staff and its customers with quick and easy access to environmental information. The map set was developed in collaboration with multiple Departments headed by the KCGIS Center.	XML

Name	Description	Language
iMAP Property Information	A Front End Application. Property Information is a map set incorporated into iMAP, King County's ArcIMS Internet application. It is primarily used to obtain information on properties, including their zoning classifications and land use designations for unincorporated King County. The map set provides King County staff and its customers with quick and easy access to this basic planning information. The map set was developed in collaboration with multiple Departments headed by the KCGIS Center.	XML
Districts Report	A Front End Application. Districts Report is a web application linked to iMAP that uses ArcIMS to return a detailed text report for a specific property based on overlay of many GIS layers. It was developed in collaboration with multiple Departments headed by the KCGIS Center.	XML
DDES_FC_and_Table_Update	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.	Python
DDESDTS	A Utility to transfer enterprise tabular data from the KC Spatial Data Warehouse to the DDES SQL Server using MS SQL Server 2000 Data Transformation Services (DTS).	Transact SQL
Update	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.	VB Script/DOS Batch File

5.5.4 DES – Emergency Management Division

- None.

5.5.5 DES – Records, Elections, and Licensing Services Division

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

5.5.6 DES – Facilities Management Division

- None.

5.5.7 DNRP – Wastewater Treatment Division

Name	Description	Language
Wtrsamp	Wtrsamp creates sample site locators from the DNRP Environmental Laboratory LIMS (Oracle) database with associated water sampling summary information. Updated weekly for access from the corporate library.	AML
CSOLocator	IMS and .asp intranet site that provides access to an MSAccess DB and IMS map set that are integrated and searchable.	ASP, IMS
WTD_Address	IMS applet that allows for a search of the KC WTD by address. Target audience is O&M group for call response.	IMS

Name	Description	Language
WTD Google Map	Google Map integrated with WTD facilities data providing the public with search capabilities of basic facilities information.	XML, GoogleMap

5.5.8 DNRP – Water and Land Resources Division

Name	Description	Language
Greenprint for King County	Greenprint for King County is a map set incorporated into a development version of *iMAP*, King County's ArcIMS Internet application, and so is only available on the intranet. The map set shows the result of the GIS analyses conducted to inform an open space and resource lands conservation and acquisition strategy.	XML, Javascript
Groundwater	Groundwater is a map set incorporated into *iMAP*, King County's ArcIMS Internet application. This map set provides information about groundwater and water supply in King County, as maintained by the Groundwater Program of WLR. Example data available includes wells, well head protection areas, groundwater contamination risk areas, and groundwater quality sampling sites	XML, Javascript
Groundwater Data Search	Groundwater Data Search is a database access application. It provides a Web interface for users to search the Groundwater Protection Program's database. The application is closely tied to the Groundwater *iMAP* map set.	ASP.NET (VB.NET)
Hydrographic Information	Hydrographic Information is a map set incorporated into *iMAP*, King County's ArcIMS Internet application. In addition to providing basic Hydrological information such as floodplains, floodways, or channel migration zones, it provides a link to the real time information from the WLR water quality buoys on Lake Washington and Lake Sammamish. It also includes the hydrogauge layer which offers links to the WLR Hydrologic Information Center.	XML, Javascript
Noxious Weeds Locations	Noxious Weeds Locations is a map set incorporated into *iMAP*, King County's ArcIMS Internet application, launched in the spring of 2004. This map set displays information about noxious weed locations as determined by the 2004 Noxious Weeds Survey. In the map set, weeds are loosely classified into 4 habitat categories, and each weed location is linked to the WLR Noxious Weed website with further information about the specific species at that location.	XML, Javascript
Salmon Watcher Program Interactive Map	Salmon Watcher Program Interactive Map is a "lightweight" ArcIMS application. The application provides a method for the volunteers in the program to locate, print maps, and obtain information about their particular salmon monitoring sites.	ASP.NET (VB.NET), XML, Javascript
Stormwater	Stormwater is a map set incorporated into *iMAP*, King County's ArcIMS Internet application. This map set provides information about KC stormwater facilities, studies, and drainage projects managed by WLR's Stormwater Services Section. This section relies heavily on this map set to help respond to citizen requests for information and to report drainage problems.	XML, Javascript
WRIA 9 Habitat Projects	WRIA 9 Habitat Projects is a map set incorporated into *iMAP*, King County's ArcIMS Internet application. This map set depicts the	XML, Javascript,

Name	Description	Language
	locations of potential and funded salmon habitat restoration and protection projects in the Green/Duwamish and Central Puget Sound Watershed. The projects shown on the map are from the WRIA 9 project database which is updated by KC, local jurisdictions, and partners through a Cold Fusion web interface. A routine, developed by the KC GIS Center, pulls selected information from this database, including PINs to locate the projects, and creates a new SDE layer for iMAP on a weekly basis.	Cold Fusion

5.5.9 DNRP – Parks and Recreation Division

Name	Description	Language
iMAP - Parks Map Set	A KCGIS Map Portal map set that provides an overview of the County's park system. A front-end application, maintained on an as-needed basis, intended for use by Parks and Recreation Division staff, other King County staff, and the general public. Training and technical assistance are available upon request.	ArcIMS
Parks Info	A web-based, menu-driven tool for accessing general information on King County parks, trails, and facilities. A front-end application, maintained on an as-needed basis, intended for use by Parks and Recreation Division staff, other King County staff, and the general public. Training and technical assistance are available upon request.	ASP, HTML, SQL Server
Park Locator	A web-based system for locating, mapping, and accessing general information on King County parks, trails, and facilities. A front-end application, maintained on an as-needed basis, intended for use by Parks and Recreation Division staff, other King County staff, and the general public. Training and technical assistance are available upon request.	ArcIMS, ASP, HTML, SQL Server
ParkView	An ArcView-based look-up tool for accessing and mapping general information on King County parks, trails, facilities, and programs. A front-end application, maintained on an as-needed basis, intended for use by Parks and Recreation Division staff and other King County staff, primarily Parks CIP managers within DES - Facilities Management Division. Training and technical assistance are available upon request.	Avenue

5.5.10 DNRP – Solid Waste Division

Name	Description	Language
Garage/Yard Sale Online Mapping Utility	Internet application which enables internal and external users to list and display locations of garage, yard, and estate sales using interactive maps.	ArcIMS, ASP, HTML, SQL Server
CLCP Data Entry Interface	Data entry interface which enables SWD project staff to enter and update information concerning sites and cleanup events which are administered by the Community Litter Cleanup Program.	Visual Basic, SQL Server, MS

Name	Description	Language
		Access
Brownfields Data Entry Interface	Data entry interface which enables SWD project staff to enter and update information concerning sites for which assessment and cleanup assistance are provided by the Brownfields Program.	Visual Basic, SQL Server, MS Access
Illegal Dumping Jurisdiction Verifier	Data entry interface and map display system which enables SWD project staff to enter reported locations of illegal dumping and verify the jurisdiction of each location.	ArcIMS, ASP

5.5.11 Department of Public Health

- None.

5.5.12 DOT – Roads Services Division

Name	Description	Language
Streettool	Streettool was a cooperative project between King County Department of Transportation – RSD and KCGIS Center. This application provides an environment for editing, maintaining, quality controlling, and plotting spatial data for the County Road Inventory System (CRIS).	

5.5.13 DOT – Transit Division

Name	Description	Language
Aspmail4	This application is a remote mailing application used to notify clients and support analysts of data issues and nightly process status.	ASP
AVL	This application provides the Transit Emergency Coordinators an easy-to-use interface for tracking busses and accessing geographic data available in Transit's GIS and corporate data available in Transit's enterprise database.	VB
Avlschedbuild	This application creates transfer files for the interface application used by Automatic Vehicle Location (AVL) Coordinators. These files are necessary for the AVL application to track bus locations on a daily basis.	VB, SQL
Avmaps	This application is an ArcView 3.x extension. It provides all ArcView end-users with a simple easy-to-use menu interface for adding layers to a view from the Transit public library. It also provides end-users with a simple easy-to-use interface for creating a layout with title, north arrow, disclaimer, scale bar, date, legend, and view that adhere to the King County GIS Cartographic Standards.	Avenue
Avtabs	This application is an ArcView 3.x extension. It provides customer information analysts with a simple easy-to-use	Avenue

Name	Description	Language
	menu interface for graphically showing bus stop signage installation routes.	
BackupLibrary	This application creates a backup of the data library on *KCMMATHIAS*.	DOS Batch Script
Btreport	This application provides Customer Information analysts with reports identifying data integrity and missing data issues. These reports are typically reviewed prior to an extract of data from the corporate database to downstream information systems.	ASP
CopyTabs Extract	This application copies data from the TABS server to *KCMOLYMPUS* necessary for the AvTabs application.	DOS Batch Script
CreateMOGeocodeIndexes	Creates MapObject geocode indexes to aid field querying	VB
DataConn	This is a COM object that provides a centralized ODBC data connection for use by various applications that connect to the Transit Oracle database.	VB
EmitterChange	This application compares emitters from the previous day and reports on any changes (inserts, updates or deletes) made by Radio Maintenance staff to APC staff.	VB
EmitterLinks	Creates a table of streets within 250 feet of a transit emitter to support AVL applications	VB
Gis2atis	This application converts data from the GIS production library for use in the Automated Traveler Information System or Trip Planning application by customer information analysts. This application will be replaced in 2005/2006 as part of the Wintel Migration.	Model Builder
LicenseManagerRestart	Restarts the ArcGIS License Manager to eliminate hung licenses	DOS Batch Script
MapCutter	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.	DOS Script, Avenue
MITT_VSS_Analyze	Performs an analyze of the Visual Source Safe (VSS) database to maintain consistent daily database performance levels. The VSS database stores all application source code.	DOS Batch Script
MMI	This application provides the Transit Emergency Coordinators an easy-to-use interface for connecting and managing communications with Transit coaches.	VB
MoEmitter	This application provides Radio Maintenance staff with an easy-to-use menu interface for maintaining vehicle location emitters. These emitters are used within the Automatic Passenger Counter (APC) system and the Automatic Vehicle Location (AVL) system. This application may be integrated into the GIS Toolbox in	VB

Name	Description	Language
	2007.	
Plib2prd	This application transfers data from the KCGIS Spatial Data Warehouse to the Transit GIS library.	VB
PostDW	This application transfers Transit and street network related shape files to the KCGIS Spatial Data Warehouse.	VB
ProcessMonitor	This application reports on the status of nightly batch processes that have been executed within the last 24 hours.	VB
Public Data Requests	This application executes a number of stored procedures to extract specific transit data into comma delimited format and placed on an external FTP site for organizations to use in trip planning systems.	Python, SQL Script, PL/SQL
Publish_Mnt2prd	This application transfers transit objects and TNET derived data layers, to the production library for access by end-users. It also publishes geodatabase data to other Transit enterprise databases through called stored procedures.	Python, PL/SQL
Recnpost_compress	Used to reconcile and post each TNET SDE named version to the parent version then compresses the state tree.	Batch Script
Route_Footprint_Generator (formerly AS)	This application provides Accessible Services staff with a simple easy-to-use menu interface for creating transit fixed route service footprints based on time of day.	Avenue
Safety Accident Tracking	This application provides safety and operations staff with a tool for entering accident information, tracking accidents through the legal process and reporting on accidents.	HTML, ASP, VB Script, Java Script
Security Incident Tracking	This application provides security and operations staff with a tool for entering security incident information, tracking incidents through the legal process, and reporting on incidents.	HTML, ASP, VB Script, Java Script
SecurityIncidentQuery	This application extracts and displays Security Incidents that occurred during a user specified time period for any combination of user specified incident categories.	Avenue
StopShapeExport	Updates Oracle database tables and creates production shapefiles directly from those tables for stop related data.	VB, ArcObjects
TNET Editor	This application is the primary tool used by Transit GIS to maintain the new transportation network edges and attributes. In addition to the end-user interface tool, it includes GO! Sync software necessary to authenticate users, process those changes against the Master TNET database, and communicate changes between agencies.	VB, ArcObjects
TOE	Transit Object Editor. This application is the primary tool used by customer information analysts for maintaining	VB

Name	Description	Language
	route paths and time point locations.	
TPMaps	This application is an ArcView 3.x extension. It generates a single map for every timepoint in jpg image format for display on the MetroKC website. AVL staff periodically run this application to create and refresh the images.	Avenue
Transit GIS Toolbox	This application provides users an easy-to-use menu interface for accessing the vast array of geographic data available in Transit's GIS and corporate data available in Transit's Oracle distribution database. Together, these databases store the agency's spatial and non-spatial information for future, current, and past service changes. Although designed for all Transit staff, the *Transit GIS Toolbox* has several modules with functionality designed for specific work groups. These include: • Ridership – Calculates Transit ridership at user specified locations. • Stop Information System – Bus stop maintenance tool. • TOE -- Maintaining route paths and time point locations. • Emitter – Maintaining emitter locations (may be implemented in 2007).	VB

5.5.14 DOT – King County International Airport

- None.

5.5.15 King County Sheriff's Office

- None.

5.5.16 Metropolitan King County Council

- The GIS program for the Metropolitan King County Council does not include activity in this area.

5.5.17 Office of Budget

- No activity in this area.

5.5.18 Department of Community and Human Services

- No activity in this area.

5.6 Servers

5.6.1 KCGIS Center

Name	Make/Model	Operating System	Purpose
WILDFIRE	HP/Compaq/Digital ES/40	Digital Tru64 Unix 5.0a	KCGIS Center legacy database server. To be retired in 2007.
ORCA	Dell PowerEdge 750	Windows Server 2003	KCGIS Center file and print server; ESRI license manager.
HERCULES	Dell PowerEdge 2650	Windows Server 2003	Front-end Web server for ArcIMS applications.
GISDW	Dell PowerEdge 2650, Dell Powervault 220S Drive Array, Dell/EMC AX150i iSCSI SAN Array	Windows Server 2003	GIS distributed file system root server; Plibrary3 data repository, DNRP GIS data.
GISSQLDW	Dell PowerEdge 2650, Dell Powervault 220S Drive Array, Dell/EMC AX150i iSCSI Array	Windows Server 2003	Back-end SQL server for GIS applications.
MAPPER1 and *MAPPER2*	Dell PowerEdge 2650	Windows Server 2003	Load balanced spatial servers for ArcIMS application.
GISWEBTEST	Gateway E4600	Windows Server 2000	Development Web server.
KCGIS-SS1 and *KCGIS-SS2*	Gateway E4600	Windows Server 2000	Development spatial servers for ArcIMS.
KCGIS-DEV	Dell PowerEdge 850	Windows Server 2003	SQL test server.
KCGIS-SQLMIGRATION	Compaq ML320	Windows Server 2003	Server setup to test migration from SQL2000 to SQL2005. *Server will be retired after testing is completed.*
DNRP1	Dell Powervault 715N	Windows Server 2000, NAS	DNRP matrixed GIS file server. To be retired in 2007.
GISNAS1	Adaptec Snap Server 4100	Snap OS (Linux)	KCGIS Center file storage; projects2 NFS mount to *WILDFIRE.*
GISNAS2	Adaptec Snap Server 12000	Snap OS (Linux)	Provides direct-to-disk backup for *WILDFIRE.*
KCGIS-EOC	Adaptec Snap Server 2200	Snap OS (Linux)	System contains a replication of shapefiles and some imagery to support RCECC activation.
GISPROD	Dell PowerEdge 6650, Dell Powervault 220S	Windows Server 2003	Primary KCGIS Center database server; KCGIS Center Time Recording System (TRS) application server.

Name	Make/Model	Operating System	Purpose
	Drive Arrays (2)		
GISIMAGE	Dell PowerEdge 1800, Dell Powervault 220S Drive Arrays (2)	Windows Server 2003	KCGIS Center imagery development workspace.

5.6.2 Department of Assessments

Name	Make/Model	Operating System	Purpose
SHADOW	HP Proliant ML570	Windows Server 2003	Image Storage, ArcGIS License Manager, ArcView server, GIS data storage.

5.6.3 Department of Development and Environmental Services

Name	Make/Model	Operating System	Purpose
DDES707	HP tc3100	Windows 2003	A production data server, it runs, ESRI ArcSDE, and MS SQL Server2000. It provides file based and ArcSDE Geodatabase GIS data for mapping and analysis projects. It provides ArcSDE Geodatabase GIS data for ArcIMS applications running on *DDES710*.
DDES-727	HP tc3100	Windows 2003	A development and test server for ESRI ArcSDE and MS SQL Server 2000.
DDES710	HP tc3100	Windows 2003	A production Intranet server, it runs MS IIS and ESRI ArcIMS. It will hosts web based ArcIMS applications such as GISMO Phase I. It also hosts the ArcINFO license manager.
DDES-720	HP tc3100	Windows 2003	A development and test server for MS IIS and ESRI ArcIMS.
DDES-BATCH2	Dell Optiplex GX620	Windows XP	A production batch server that runs ArcGIS models and python scripts to synchronize data between the KCGIS Spatial Data Warehouse and the DDES ArcSDE database.

5.6.4 DES – Emergency Management Division

Name	Make/Model	Operating System	Purpose
XSTORE SERVER	DELL Power Edge Server	Windows 2003	PSAP GIS data host. Installed at the PSAP to host GIS data and send calls to the map.

Name	Make/Model	Operating System	Purpose
XSTORE SDE	DELL Power Edge Server	Windows 2003	E-911 GIS data base server. Installed at the E-911 Office for GIS data hosting and upkeep.

5.6.5 DES – Records, Elections, and Licensing Services Division

- Plan not submitted in time for first publication. Plan is expected to be provided as an addendum in early 2007.

5.6.6 DES –Facilities Management Division

- None.

5.6.7 DNRP – Wastewater Treatment Division

- None.

5.6.8 DNRP – Water and Land Resources Division

- None.

5.6.9 DNRP – Parks and Recreation Division

Name	Make/Model	Operating System	Purpose
PARKS-01	Dell PowerEdge 2650	Windows 2003 with SQL Server 2000	Server for ArcView licenses, the ParkView application, the Park Site and Facilities database (PSAFI), the Park Properties database (ParkProp) and several non-GIS Access databases which are used for administrative functions.

5.6.10 DNRP – Solid Waste Division

Name	Make/Model	Operating System	Purpose
SW-KSC-016	Custom Build	Windows Server 2003 with SQL Server 2000	SQL database server (MS SQL 2000).
SW-KSC-026	Custom Build	Windows Server 2003	Application server.

5.6.11 Department of Public Health

- None.

5.6.12 DOT – Roads Services Division

Name	Make/Model	Operating System	Purpose
JABBA	ALR 9200	Win2000 Server	Data development and storage server.

Name	Make/Model	Operating System	Purpose
			This server houses the Division's GIS datasets and is a storage area for the Division's GIS-related working data. When data is complete, it is moved up to the KCGIS Center enterprise data server. This server also allows a single place for users to store project files.
RED-DWARF2	ALR&7200	Win2000 Server	Data development and storage server. This server houses all data developed, enhanced and maintained as part of the King County Cultural Resources Protection Project. Due to the sensitive nature of the data, this server is only accessible by 4 employees in King County.

5.6.13 DOT – Transit Division

Name	Make/Model	Operating System	Purpose
KCMOLYMPUS	Compaq Proliant 8000	Win2003 Server	Production platform for Transit GIS production data and applications, core GIS software, license management, data access tools, batch processing applications, and the spatial production data warehouse and TNET database.
KCMMATHIAS	Compaq Proliant 8000	Win2003 Server	Development and test platform for applications and data prior to deployment on *KCMOLYMPUS*.
KCMTRANS PORT	Pentium IV	Win2000 Server	Production platform that serves as the focal point for incoming changes to the transportation network from all TNET clients. These changes are processed in ArcGIS on this server against the master TNET database.
KCMRAINIER	Compaq Proliant DL380 G2	Win2000 Server	Production intranet web application server for two applications; Safety Accident Tracking and the Security Data Management System. (This server is shared with other Transit information systems.)
KCMSTHELENS	Compaq Proliant DL380 G2	Win2000 Server	Development and test platform for applications prior to deployment on *KCMRAINIER*.
ORASERV1	Compaq ES 40	UNIX (5.1A)	Production platform for Transit's corporate data warehouse and the GIS Oracle database including geographic data stored as coordinates. Most information systems publishing data for

Name	Make/Model	Operating System	Purpose
			the Division post to this server, and many of Transit's information systems use these databases, including GIS desktop data access applications querying spatial and non-spatial attribute data.
ORATWO	Compaq ES 40	UNIX (5.1A)	Test platform for Transit's corporate data warehouse and the GIS Oracle database. It is used to test applications against new or changed data structures/content prior to deployment to *ORASERV1*.
PHOENIX	Compaq ES 40	UNIX (5.1A)	Development platform for Transit's corporate data warehouse and the GIS Oracle database. It is used to develop new or changed data structures/content prior to testing on *ORATWO*.

5.6.14 DOT – King County International Airport

- None.

5.6.15 King County Sheriff's Office

- None.

5.6.16 Metropolitan King County Council

- None.

5.6.17 Office of Budget

- No activity in this area – OMB does not maintain its own servers.

5.6.18 Department of Community and Human Services

- None.

6 Appendix B: KCGIS Center Services

The KCGIS Center serves the county's GIS users and programs. This is accomplished through three lines of business, which include the centralized services provided by Enterprise Operations, the on-demand and customized 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 seven 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 2007 and beyond.

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 ArcGIS Editors, the GIS Application Developers, and the Digital Imagery Workgroup. 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 broad based and targeted communications about the benefits and services of KCGIS. 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, the Knowledge Base, and the Map Portal, as well as Web pages describing significant projects, the KCGIS training program, and client 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, and Maintenance – The KCGIS Center has several responsibilities in regards to management of GIS data. Broadly these include: a cross agency data 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 framework); a data acquisition program to obtain (or exchange when possible) and organize GIS data from local, regional, state, and federal agencies; and a data stewardship program to maintain by agreement with the KCGIS Technical Committee a limited set of data layers as an enterprise service.

Contract Management – Manage vendor contracts for GIS software licensing and maintenance and consultant contracts for GIS services.

GIS Education and Outreach – Provide GIS education and outreach opportunities through briefings, seminars, help desk support to internal and external GIS users, GIS Day, and KCGIS User Group meetings.

Client Services

The KCGIS Center Client Services Unit meets the custom needs of individual clients. Clients 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 2007 Client Services is adopting a tiered billing structure ranging from $85 - $110 per hour. These rates apply to trained, experienced, multi-skilled GIS professional 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.

2007 Standard GIS Client Services Hourly Billing Rates

GIS Analyst (GIS Specialist):	$85.00
GIS Programmer (GIS Specialist Master):	$90.00
Senior Cartographer:	$90.00
GIS Production Coordinator:	$90.00
GIS Project Manager:	$95.00
GIS Consultant:	$95.00
GIS Center Manager:	$110.00

A special GIS Technician billing rate is available for long term multi-month data development or data maintenance project work. This special billing rate assumes 139 billable hours per month per GIS Technician (GIS Specialist - Journey only). This rate applies to trained GIS technicians for standard repetitive GIS data development or maintenance work only (e.g. digitizing, COGO, geocoding, etc.). It is also limited only to projects with a minimum duration of three months, and which involve ongoing production-level data development via established methodology. This special billing rate is set at $72.50 per hour in 2007.

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 is described below.

Ad-Hoc Map Requests – KCGIS Center Client Services annually produces hundreds of display maps for meetings and maps made for insertion into documents. 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. KCGIS Center Client Services has extensive experience performing a wide variety of complex analyses and incorporating the results into reports or presentations.

High-Quality Cartography – Combining the flexibility of GIS with the artistry of graphic design is a unique capability of Client Services. Several Client Services map products have won national and international awards in recent years. Examples of products created include brochures, booklets, graphics for outdoor signage, and posters.

KCGIS Data Sales – Standard datasets are published four times per year and are available by mail order or through the King County DOT Road Services Map Counter, located in the lobby of the King Street Center. Two CD's comprise the standard datasets. For 2007 the unit cost for a standard data CD is $110. A data DVD containing all datasets on one disc is also available at a cost of $220. Further information about the KCGIS data sales program can be found at www.metrokc.gov/gis/services/sales_main.htm on the Web.

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 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 important applications for a variety of clients.

GIS Training – Client Services offers a variety 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 a certified ESRI trainer). Tuition varies based on cost factors but is generally extremely cost-effective when compared to software training offered by other vendors. The training curriculum and calendar are more fully described at www.metrokc.gov/gis/services/training_course_outline.htm on the KCGIS Center website.

GIS Help Desk – Help desk support is available from Client Services, through its Training Coordinator and other support personnel. Free help desk 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 conversion, an e-mail exchange, or a brief meeting. More comprehensive support programs that cover ongoing or significant needs can be arranged with the KCGIS Center at the standard Client Services rate.

GIS Services Express – Client Services offers a package called "GIS Services Express" which includes eight hours of free consulting time, discounts for King County data and training, and other amenities, in exchange for a commitment to a block of 100 hours of service. This service is available to any agency seeking help with their GIS program. It provides a scheme for 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

2007 GIS Oversight Committee Representatives

Agency	Sub-Agency	Representative	Term
Dept. of Assessments	--	John Sweetman	Jan-Dec
Dept. of Development and Environmental Services	--	Tom McBroom	Jan-Dec
Dept. of Executive Services**	--	Jim Buck	Jan-Dec
Dept. of Natural Resources & Parks	--	Gary Hocking*	Jan-Dec
Dept. of Transportation	Road Services	Greg Scharrer	Jan-Dec
Dept. of Transportation	Transit	Mike Berman	Jan-Dec

* Chair
** Rotating Agency

2006 GIS Oversight Committee Representatives

Agency	Sub-Agency	Representative	Term
Dept. of Assessments	--	John Sweetman	Jan-Dec
Dept. of Development and Environmental Services	--	Michael Pahl Jim Schaber Tom McBroom	Jan-Jun Jul-Nov Dec
Dept. of Executive Services**	--	Jim Buck	Jan-Dec
Dept. of Natural Resources & Parks	--	Gary Hocking*	Jan-Dec
Dept. of Transportation	Road Services	Greg Scharrer	Jan-Dec
Dept. of Transportation	Transit	Wayne Watanabe Mike Berman	Jan-Jun Jul-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 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

2007 GIS Technical Committee Representatives

Agency	Sub-Agency	Representative	Term
Budget Office	--	Chandler Felt	Jan-Dec
Dept. of Assessments	--	Christie Most	Jan-Dec
Dept. of Community and Human Services	--	Cheryl Markham	Jan-Dec
Dept. of Development and Environmental Services	--	Paul McCombs	Jan-Dec
Dept. of Executive Services	Office of Emergency Management	Khalid Khan	Jan-Dec
Dept. of Executive Services	Records, Elections and Licensing	Harry Sanders	Jan-Dec
Dept. of Executive Services	Facilities Management	Larry Wright	Jan-Dec
Dept. of Natural Resources & Parks	KCGIS Center	George Horning	Jan-Dec
Dept. of Natural Resources & Parks	Parks	Greg Stought	Jan-Dec
Dept. of Natural Resources & Parks	Solid Waste	Greg Stought	Jan-Dec
Dept. of Natural Resources & Parks	Wastewater	Bob Swarner*	Jan-Dec
Dept. of Natural Resources & Parks	Water and Land Resources	Ruoxi Zhang	Jan-Dec
Dept. of Public Health	--	Dmitry Sharkov	Jan-Dec
Dept. of Transportation	Road Services	Michael Kulish	Jan-Dec
Dept. of Transportation	Transit	Tamara Davis**	Jan-Dec
Dept. of Transportation	Airport	Vanessa Ng	Jan-Dec
King County Council	--	Ricardo Bautista	Jan-Dec
Sheriff's Office	--	Jim Hilmar	Jan-Dec

* Chair
** Vice-Chair

2006 GIS Technical Committee Representatives

Agency	Sub-Agency	Representative	Term
Budget Office	--	Chandler Felt	Jan-Dec
Dept. of Assessments	--	Christie Most	Jan-Dec
Dept. of Community and Human Services	--	Cheryl Markham	May-Dec
Dept. of Development and Environmental Services	--	Paul McCombs*	Jan-Dec
Dept. of Executive Services	Office of Emergency Management	Khalid Khan	Jan-Dec
Dept. of Executive Services	Records, Elections and Licensing	Harry Sanders	Jan-Dec
Dept. of Executive Services	Facilities Management	Larry Wright	Jan-Dec
Dept. of Natural Resources & Parks	KCGIS Center	George Horning	Jan-Dec
Dept. of Natural Resources & Parks	Parks	Greg Stought	Jan-Dec
Dept. of Natural Resources & Parks	Solid Waste	Greg Stought	Jan-Dec
Dept. of Natural Resources & Parks	Wastewater	Bob Swarner**	Jan-Dec
Dept. of Natural Resources & Parks	Water and Land Resources	Ruoxi Zhang	Jan-Dec
Dept. of Public Health	--	Dmitry Sharkov	Jan-Dec
Dept. of Transportation	Road Services	Michael Kulish	Jan-Dec
Dept. of Transportation	Transit	Mike Berman Tamara Davis	Jan-Jun Jul-Dec
Dept. of Transportation	Airport	Vanessa Ng	Jan-Dec
King County Council	--	Lauren Smith Ricardo Bautista	Jan Feb-Dec
Sheriff's Office	--	Jim Hilmar	Jan-Dec

* Chair
** Vice-Chair

7.2.2 Charter

King County

GIS TECHNICAL COMMITTEE

Charter

Revised - 6/8/2004

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
Budget Office	DES-REALS	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-Transit

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 active work groups (Digital Imagery, and GIS Operations and Maintenance). Work groups are given clear objectives by the KCGIS Technical Committee, in order to focus and guide the group's efforts.

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 "2007 King County GIS Production Operations and Maintenance Plan") the work group has fulfilled its responsibilities for 2006. In the later half of 2007 the

work group will begin efforts to draft the 2008 GIS operations and maintenance plan. See www.metrokc.gov/gis/kb/Content/OandM.htm on the KCGIS Center website for the most recent version of the operations and maintenance plan.

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 where 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.

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 where introduced between ArcView 7.x and ArcView 8.x.

Versions before 8.0 are a 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 Heath Department.

EMS

Emergency Medical Services

A division of the Seattle & King County Public Heath 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 Heath 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 version8.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.

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.

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.

RECDNET

Record Network

Abbreviation for the King County cadastral base GIS layer.

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.

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.