

King County Election Improvements
Supplemental Appropriation Request
May 20, 2003

The Executive requested that the Office of the Secretary of State (OSOS) perform an audit of the elections process for the 2002 Primary Election. They again performed a required audit for a mandatory recount in the 47th Legislative District. The OSOS performed a third audit after the late mailing of absentee ballots for the 2002 General Election.

The OSOS published its audit findings and made a number of findings and recommendations. Elections staff, in conjunction with Information and Telecommunications Services Division staff, have worked over the last several months to identify areas in Elections that need to be improved. Some of these improvements have been implemented or are being worked on and can be done within existing resources. Others, however, require additional expenditure authority.

The Division is requesting additional expenditure authority to implement a number of changes in 2003. They are in the areas of:

- Improving election processes
- Improving the technical infrastructure
- Improving information to the public
- Implementing improved system applications

Also included is a request for a project manager to coordinate and manage the various projects to ensure that events are happening in the right order and delays of critical activities that may jeopardize meeting critical deadlines are avoided.

The spreadsheet included with this proposal itemizes the various projects and identifies the specific OSOS recommendation being addressed. Funding this request will position Elections to be ready for the 2004 presidential election year and to be prepared for the implementation of a new voter registration system by 2006, as required by the federal Help America Vote Act (HAVA).

**Elections Infrastructure Upgrade
Management Summary**

5/19/2003

Improvement Requests	KC Ref # to Sec State Recomm (see p. 3)	2003 Supplemental						Ongoing Costs 2004+				
		Capital		Operating		Total 2003	Operating		Total Ongoing			
		Hardware	Software	Staff/Temp	Other		Staff/Temp	Other				
1. Improve Election Processes												
1.1 Absentee ballot processing efficiencies	3, 12, 22	\$138,548		\$75,754	\$106,360	\$320,662	\$75,754	\$29,760	\$105,514			\$0
1.2 Elections business process documentation	1, 3, 4, 5, 18, 19, 21, 22	\$1,195	\$330	\$36,300	\$9,801	\$47,626						\$0
1.3 Business area analysis	1, 3, 4, 5, 18, 19, 21, 22			\$90,000		\$90,000			\$0			\$0
1.4 Expedited Mail Ballot Request Processing	19, 22	\$37,000		\$220,500	\$28,000	\$285,500	\$220,500	\$20,000	\$240,500			\$0
2. Improve Technical Infrastructure												
2.1 Standardize/stabilize election server environment	3, 12, 22	\$12,371	\$488	\$20,025		\$32,884	\$20,025	\$1,481	\$21,506			\$0
2.2 Upgrade network infrastructure	3, 22	\$61,358		\$9,103	\$6,098	\$76,559	\$9,103	\$9,148	\$18,251			\$0
2.3 Replace elections workstations	1, 3, 10, 12, 22	\$63,316	\$24,876	\$35,495		\$123,687						\$0
3. Improve Information to the Public												
3.1 Compliance with DOJ Chinese language req't	7				\$205,000	\$205,000			\$95,000			\$0
3.2 Increase voter outreach efforts	13	\$3,267	\$871	\$29,784	\$18,435	\$52,357	\$29,784	\$18,435	\$48,219			\$0
3.3 Increase phone bank	10, 21	\$21,998		\$68,679	\$12,205	\$102,882	\$68,679	\$4,500	\$73,179			\$0
3.4 Create Interactive Voice Response System	10, 21	\$26,952		\$14,434	\$436	\$41,822	\$14,434		\$14,434			\$0
4. System Applications												
4.1 Upgrade GEMS application (absentee tabulation)	3, 18	\$26,136		\$75,086	\$16,320	\$42,456			\$5,000			\$0
4.2 Implement mainframe work requests	3, 8, 10, 12, 22					\$75,086						\$0
5. Project Management for Elections Projects												
5.1 Project manager	1, 3, 4, 5, 8, 10, 12, 18, 19, 21, 22			\$70,717		\$70,717						\$0
Total		\$392,141	\$26,565	\$745,877	\$402,655	\$1,567,238	\$438,279	\$183,324	\$621,603			

Elections Infrastructure Upgrade Management Summary

5/19/2003

Office of the Secretary of State's Recommendations and Suggestions Cross-Reference

<u>KC#</u>		<u>Report Citation</u>
1	Acquire or build a voter registration system	Section 2 Rec'm #1
2	Absentee ballots	Section 2 Rec'm #2
3	current system	Section 2 Rec'm #3
4	Ballot cage security - add seals, logs, and/or 24hr camera & tape	Section 2 Rec'm #4
5	Ballot enhancement - procedures, adequate staffing	Section 2 Rec'm #5
6	Minority language services - Chinese-speaking community	Section 2 Rec'm #6
7	Accessibility reports - completed for 2002 and in even years	Section 2 Rec'm #7
8	Tech. support - staff dev't/training, systems & elections	Section 3 Sugg. #1
9	Consolidation of precincts and polling places	Section 3 Sugg. #2
10	Increase phone bank and Web site	Section 3 Sugg. #3
11	Procedures manual/staff communication	Section 3 Sugg. #4
12	Mail ballot elections - build capacity for Countywide vote by mail	Section 3 Sugg. #5
13	Increase voter outreach	Section 3 Sugg. #6
14	Local voters pamphlet - polling place/election notices	Section 3 Sugg. #7
15	Ballot cage security - add seals, logs, and/or 24hr camera & tape	Section 4 Rec'm #1
16	Ballot security - storage box security seals	Section 4 Rec'm #2
17	Ballot tabulation system documentation	Section 5 Rec'm #1
18	Ballot tabulation programming	Section 5 Rec'm #2
19	Mailing absentee ballots	Section 5 Rec'm #3
20	Internal communication	Section 5 Rec'm #4
21	Crisis management	Section 5 Rec'm #5
22	Absentee ballot processing - increase capacity & staffing	Section 5 Rec'm #6

Projects undertaken within existing resources in 2003

1) Replace candidate filing system	4, 15, 16
2) Increase ballot security	5
3) Ballot enhancement	6
4) Minority language services	8
5) Technical support	9
6) Consolidation of precincts and polling places	10
7) Web site	11
8) Procedures manual	17
9) Ballot tabulation systems documentation	19
10) Mailing absentee ballots	22
11) Upgrade server infrastructure (domain controllers)	

1. Improve Election Processes

1.1. Absentee ballot processing efficiencies

Issue

The number of absentee voters has increased over the years so that it is now almost 45% of the active registered voters or 462,331 permanent absentee ballot voters. That number is expected to increase to 600,000 by the Presidential Election in November 2004. Further, King County needs to be prepared for the potential of an all-mail ballot election for the Presidential Preference Primary to be conducted in February or March 2004.

RCW 29.62.020 requires that absentee ballots received by Elections be processed and tabulated within three days of receipt following the election and prior to certification. Absentee ballots need to be moved through the process more efficiently to comply with RCW 29.62.020.

Recommendation

There are a number of improvements that need to be implemented in order to process absentee ballots more efficiently, increase the turnaround time from receipt to readiness to tabulate, and ensure that the maximum number of ballots are opened, verified and tabulated on Election Day and subsequent tabulation days. These include:

- Increase capacity for verifying signatures of incoming mail ballots;
- Increase capacity for opening incoming mail ballots; and,
- Increase capacity for counting ballots on Election Day and thereafter.

In order for these improvements to happen, Elections needs to:

- Install more signature verification workstations
- Acquire additional mail envelopers (mail opening machines)
- Acquire and install more Accu-Feed devices to tabulate absentee ballots
- Provide an adequate infrastructure to support the operations and communications between the Mail Ballot Operations Satellite (MBOS) and the downtown central count office
- Hire additional staff to perform these functions
- Provide additional warehouse space to house increased equipment and FTE's

The additional equipment and processes identified are dependent upon installing the added infrastructure needs documented in the spreadsheet under Improvement Requests Nos. 2.1 and 2.2.

Resources Required

Resources	Request
Hardware/software (Accu-Feed devices, signature verification work stations, mail openers, desks, tables)	\$138,548
Temporary staff	\$75,754
Expanded warehouse space plus tenant improvements*	\$106,360
Total	\$320,662

* Additional space and tenant improvements depend on a variety of issues and options available. There is available space within the industrial park now housing the MBOS facility. Depending on the County's long-term interests, available funding, and ultimately a negotiated agreement with the landlord, this project could be scaled to meet the needs of King County.

1.2 Elections business process documentation

Issue

Some of the systems and processes in the Elections area are not fully documented, and some are out of date. A redraft of the Elections Section policies and procedures manual was done in 2002; however, the manual needs to be reviewed and edited. Additionally, a mechanism for routine reviews needs to be put into place. Processes that are not covered in the Section policies and procedures manual need to be identified and operations manuals need to be drafted, reviewed, edited and distributed.

Recommendation

Hire a TLT with technical writing and process management skills to update the existing policies and procedures manual, in conjunction with appropriate Elections staff, to identify those areas that require an operations manual, and develop a manual format and process and draft such manuals with Election staff support. This includes all facets of elections operations, voter registration, GIS processes, and tabulation processes.

Resources Required

Resources	Request
Hardware/software	\$1,525
Temporary staff	\$36,300
Printing, office supplies	\$9,801
Total	\$47,626

1.3 Business area analysis

Issue

The systems supporting Elections range from mainframe-based voter registration to small platform systems developed by outside vendors to desktop (PC) programs. There is minimal communication between the systems and minimal documentation of the inter-relationship between these systems and processes.

The current review of policies and procedures and the effort to document existing practices has highlighted several areas where immediate changes can be made with minimal expenditures.

The County desires to replace the voter registration system; however, that should be done in coordination/conjunction with the newly mandated State "centralized" voter registration database required by the 2002 federal Help America Vote Act (HAVA). The State is required to have the system in place no later than 2006. Acquisition, implementation could occur prior to '06 but no later than that date.

Recommendation

The Elections Section needs to supplement its long-range and short-range goal planning with the development of an integrated plan at the individual work center levels to improve its operations and to address short- and long-term goals. Key Elections staff and selected ITS staff will participate in an analysis of the business needs of the section to build an efficient and effective election operation and supporting systems and:

1. Provide a clear description of the current business functions and processes.
2. Recommend process and system improvements and changes based on the Election Section's long-term and short-term goals.
3. Provide detail for identifying requirements and development of an RFP for a new voter registration system.

Resources Required

Resources	Request
Consulting Services*	\$90,000

* Consultant Costs: \$150/hr for 4 months

1.4 Expedited mail ballot request processing.

Issue

The 2003 State Legislature established new restrictions on the timing of mailing absentee ballots in all public elections. SSB 5218 created a new 24 hour turn around requirement for all ballots requested within 19 days of an election. King County currently does not have the capacity to process ballots with a 24 hour turnaround when conducting a major countywide election. The ballot-on-demand service was designed to provide ballots of a limited quantity over-the-counter upon request. Ballot-on-demand was not designed for large scale production of ballots. What is possible during a small limited participation special election would likely be a more significant challenge during a larger countywide Primary or General election and will be extremely difficult during a high volume, County-wide and/or Presidential election. Since the volume of requests can only be estimated, the capacity would have to be sufficiently high to meet a reasonable yet possible worse case scenario for a given election and that would require space, equipment, and people.

Recommendation

Ballot printing and processing will be moved in-house and processed manually for all but the first two or three printed envelope orders. Staff will need to process one-time requests for absentees as well as changes of address, and other similar changes on the day they are received, and the precoded envelopes will need to be printed in the evening or the following morning in order to be inserted with the ballot and other material, sorted, and mailed. This would add an estimated \$73,500 in labor costs per county-wide election (10 staff x 10 hours day x 35 workdays x \$21 hour (includes payroll taxes) = \$73,500). There are up to three county wide elections per year. Annual fixed costs for facilities rent, phone lines, setup, etc. would add an estimated \$20,000. Capital costs would add approximately \$25,000 (PC's, furniture, phones) plus the cost of a ballot envelope printer (approximately \$20,000). The estimate to establish and maintain the capacity to meet the newly mandated requirements is \$285,500 per year and \$45,000 every five years for equipment and furniture replacement.

Resources Required

Resources	Request
Seasonal Labor	\$220,500
Additional fixed costs (rent, phone lines, setup, etc.)	\$20,000
PC's, production envelope printer, furniture, phones	\$45,000
Total	\$285,500

2. Improve Technical Infrastructure

2.1 Standardize/stabilize election server environment

Issue

Elections has two SQL servers dedicated to signature verification, one at the Mail Ballot Operations Satellite Office (MBOS) and one at the Elections Office in the Administration Building. Due to an inadequate network connection, replication is not possible. In addition, the SQL servers are running on servers that have other functions, such as domain controller, application server, etc. SQL servers run most efficiently when they are running on their own servers that are under regular maintenance and have warranty or hardware support agreements.

Elections has several applications running on individual desktop machines. Applications should run on a separate server that has rigid security standards and system administration practices in place.

The potential for failure is increased and the ability to recover quickly is greatly diminished due to inadequate system redundancy and older architecture.

Recommendation

SQL Server

With the introduction of a high bandwidth connection between the Administration Building and the MBOS site, purchasing a new SQL server (replacing the two existing servers) to house the signature verification application would provide Elections with up-to-date architecture and functionality which would accommodate future growth and expansion. It would also ensure that the hardware was under a hardware maintenance program and that the signature verification database would be housed in a robust server. In the event of an outage of the server, ITS has SQL servers in the Key Tower that could be used to temporarily house the Elections database.

Application Server

The individual Elections applications need to reside on a separate, single server that is expandable, reliable, backed up and efficient. The recommendation is to purchase a new up-to-date server complete with warranty and/or hardware maintenance.

Using new hardware will provide Elections with a reliable, efficient and scalable environment. The hardware will be covered by warranty and hardware support that provides a four-hour, on-site response to an incident call. This is especially desirable for the SQL server which requires high availability during the signature verification process.

Resources Required

Resources	Request
ITS/T&O system administration	\$20,025
Servers, software and maintenance	\$12,859
Total	\$32,884

2.2 Upgrade network infrastructureIssue

Elections systems are currently running at several sites: Elections Warehouse, MBOS and the Elections LAN in the Administration Building. The network infrastructure at these sites and between these sites needs to be upgraded and standardized. The existing equipment barely supports the current process and practices. There is little or no room for growth or flexibility. The recommendations made elsewhere relating to election improvements cannot be implemented without upgrading the network infrastructure.

Improved communication is needed with the MBOS site in order to provide realistic backup, to facilitate transfer of data (now limited to using a car), and to reduce the number of servers required to support the election operation. The current network infrastructure is older architecture. Parts are difficult to locate and equipment is difficult to maintain.

Recommendation

New switches are needed in the Administration Building to support more workstations. The Elections Warehouse LAN is currently running on an old, outdated hub that needs to be upgraded to a Cisco Switch. This will allow remote monitoring, a choice of port settings, remote administration, and greater reliability.

The WAN link to the MBOS site is currently a frame relay, a slow and narrow bandwidth connection that needs to be upgraded to a fast INET link. The bandwidth of the WAN link to the MBOS site is so small that on a daily basis, the large elections data file located at the Administration Building has to be copied to a tape and then hand-delivered to the MBOS site. Upgrading the WAN link will better support the increased number of workstations at MBOS and allow for timely and efficient updating of the signature file to support signature verification for processing absentee ballots. Further, results of processing absentee ballots can be transmitted more efficiently, thus affording additional time to count ballots.

The Elections LAN in the Administration Building is at capacity. It is recommended that one large switch be installed to replace the four switches that are currently tied together. A new high-performance switch provides wire-speed performance and future-proof bandwidth protection because it is easily upgradeable to Gigabit.

Resources Required

Resources	Request
ITS/T&O system administration	\$9,103
Equipment	\$15,000
INET	39,368
Maintenance	\$2,675
Total	\$66,146

2.3 Replace elections workstations

Issue

The current Elections workstations were purchased in May of 1998. The warranty for these workstations expired in May 2001. The current hardware and software is no longer supported by the manufacturers, Dell and Microsoft. The current computers do not meet Microsoft's current minimum hardware requirements for Windows XP. There are four different versions of operating systems, and the current hardware and software on these computers is very unstable and at a high risk of failure.

The current machines are not under warranty nor on any maintenance contract and must be repaired or replaced by County staff. The machines are old and replacement parts may be hard to find. It is a certainty that having multiple hardware configurations and multiple software configurations substantially increases the time and effort needed to diagnose and resolve problems. This means that not only is the cost to resolve a problem greater but also the impact of the machine being out of service longer is greater. Repeated studies as well as recommendations of ITS and the OIRM all emphasize the need for standardization of hardware and software.

In addition to equipment, the Election Section's desktop and small platform support for day-to-day section activities needs to be enhanced to meet current demands for service and to minimize staff down time when processing time sensitive material. Replacement of the old equipment will help reduce some of the lower priority challenges that currently exist; however, there will continue to be issues that require immediate attention and

resolution. The demand for desktop support in Elections is equivalent to approximately 1.6 FTE, and the current resources are at 1.0 FTE.

Recommendation

Replace 51 workstations and purchase two workstations as spares. Having spares immediately available is necessary when Elections staff is in full production mode during any Countywide election to ensure no down time. Upgrading the workstations will increase stability, provide efficiencies, and allow the accomplishment of the day-to-day work throughout the year. Workstations need to be under warranty for ease of replacing failed hardware.

Purchase additional desktop support services through ITS in an amount equivalent to a half-time position for six months. This will allow the roll out of replacement desktop equipment to be coordinated effectively, will help eliminate the backlog of system/application issues that need to be addressed, and will provide the necessary follow-up support that is prudent following a major systems and software replacement effort. Following the six-month period the level of desktop support service required is anticipated to reduce down to a level manageable within a single FTE model.

Resources Required

Resources	Request
LAN Desktop support	\$35,495
Workstations	\$63,316
Software	\$24,876
Total	\$123,687

3. Improve Information to the Public

3.1 Compliance with DOJ Chinese language requirement

Issue

In 2002, the federal Department of Justice (DOJ) advised that King County is required to comply with federal regulations (Federal Voting Rights Act Section 203) for providing election materials in Chinese. This was due to the 2000 census that revealed some areas that surpassed a benchmark number for foreign language speakers and triggered the requirement to provide election materials and assistance to Cantonese-speaking Chinese voters.

Recommendation

Obtain new version of tabulation software (“ballot building”) which has capability to produce ballots in Chinese (see 4.1). Hire at least one permanent staff person with Cantonese language abilities and have other temporary workers on-call or on-staff during elections (this will be done within existing resources). Secure ongoing funds to have election materials translated into Chinese, including translation on the Web site.

Resources Required

Resources	Request
Translation Services (Including Software Ballot data)	\$145,000
Printing	\$45,000
Chinese Web version	\$15,000
Total	\$205,000

3.2 Increase voter outreach efforts

Issue

Voter outreach includes publications, presentations and an effective presence in the community as a resource for information. Currently, we respond to requests for information but have not taken a proactive approach to getting information to the voter. With more and more demands from the public for information, we must respond accordingly. Our phones are currently overwhelmed during an election with calls from an electorate that has no idea if they are registered or where they go to vote. A comprehensive voter outreach program will build a relationship between this office and the public. It will proactively get information to an electorate that requires information to vote. A voter outreach program will also help this office process requests more efficiently.

Recommendation

Develop an ongoing, supportable voter outreach program that includes:

1. Regular training sessions for volunteers or campaigns who conduct voter registration drives to ensure basic knowledge of process and time lines.
2. Division staff participation in “roving” presence at malls, large stores, community events, among others, on a regular basis in order to provide voter registration information and register voters. Mailings or publications can be done before to let residents know of the events.
3. Training of Community Service Center staff to provide additional election information such as absentee ballot requests (they already provide voter registration information).
4. Conducting presentations and increase the information at high schools and colleges.

Resources Required

Resources	Request
Increase Pollworker Coord. position to full time and add outreach responsibilities (+.2 FTE)	\$10,584
Temporary staff	\$19,200
Equipment (work station, phone, supplies, booth)	\$5,183
Motor pool services	\$1,500
Printing and binding	\$10,890
Advertising	\$5,000
Total	\$52,357

3.3 Increase phone bankIssue

The Elections Section maintains a phone bank during election periods, which includes a number of employees who answer routine questions from the public (e.g., voter registration where to vote) transferring more complex calls to regular Election staff. The phone bank staff also perform data entry, filing and other clerical duties associated with voter registration or election operations. Phone bank staffing will fluctuate depending on the election (small specials, low-turnout primaries or generals, high-turnout elections, Presidential year elections). The phone bank staff was reduced (a reduction of approximately \$93K was taken in 2002). The Office of the Secretary of State, in its recent audit of King County Elections, indicated that the phone bank was seriously understaffed.

Recommendation

The volume of calls received by Elections dramatically increases during election time. Current staffing is not adequate to meet the targeted level of customer service (ability to field 5,000 phone calls per day). These resources supplement the IVR phone application requested (see 3.4, Create Interactive Voice Response System) and Web page enhancements that will allow voters to locate their polling place via a Web-based application. Ensure infrastructure and equipment is in place to support this level of staffing.

Current funding provides for approximately 10–12 seasonal staff in the phone bank for the primary and general election time period. Increase staff to 20 seasonal staff for the general election, 2003. Provide staff of 25 seasonal staff for handling call volume and data entry requirements in December for the 2004 Presidential Preference Primary.

Resources Required

Resources	Request
Temporary staff	\$79,512
Equipment (dumb PC's)	\$21,998
Data/Voice Wiring	\$8,304
Phone lines (install and monthly charge)	\$3,901
Total	\$113,715

3.4 Create Interactive Voice Response System**Issue**

Voters contact the Elections Section to get a variety of information about elections and voting. Automated information can provide generic information; however, voters often and routinely request personalized information (am I registered to vote? Where is my polling place?). There is a huge spike of phone calls leading up to, and especially on, Election Day. It is not possible to staff up to a level that can handle the volume of phone calls on Election Day (over 100,000 phone call attempts on Presidential Election Day, November 2000; 5,000-10,000 on other general election dates).

Recommendation

Expand the existing AVT CallXpress system (applied voice technology automated phone information) in the Division (now supporting Licensing and Animal Control) to include an IVR (Interactive Voice Response) application and additional phone capacity. The IVR program would allow voters to look up their individual polling places. Callers not wishing to use the system or callers where no information is found (perhaps also indicating they are not currently registered to vote) would be transferred to an operator for in-person assistance. During the election cycle (just prior to election and on Election Day), Elections receives many calls from voters wanting to know their polling place. Call volume is exceedingly high during this time, and an automated system would allow callers to receive the information they require while at the same time freeing up Elections staff to answer other calls requiring individual attention.

Resources Required

Resources	Request
ITS/T&O staff	\$14,434
IVR application and server	\$26,952
Systems training	\$436
Total	\$41,822

4. System Applications

4.1 Upgrade GEMS application (absentee tabulation)

Issue

The version of the election tabulation software has not been upgraded since initially installed in 1998 due to protracted contact issues with the vendor. A contract settlement agreement will allow the County to acquire a software upgrade.

Recommendation

The new version of the software will allow for efficiencies, including the ability to create Chinese language ballots and streamline and automate several processes including ballot order and a new report writer for canvassing reports. By updating to the current version, we will be able to eliminate several stand-alone programs that are currently used to interface with the GEMS software and are needed to run the elections processes. Thus, these processes become much more efficient and user-friendly. To run the latest version, two new servers are needed.

Resources Required

Resources	Request
2 GEMS servers and software	\$26,136
Training and Testing	\$16,320
Total	\$42,456

4.2 Implement mainframe work request

Issue

There is a significant backlog of projects to enhance the mainframe voter registration capabilities and implement an automated process to create efficiencies in work processes. These include: Web-based pollsite lookup, automate jury notification returns to inactivate voters, add bar code functionality on voter registration cards to automate database updates, and adding bar coding to poll books to automate voter crediting, among others.

Recommendation

There are a number of critical enhancements that must be completed prior to the 2004 Presidential election. Addition of the requested resources will ensure that the requested projects are completed, thus allowing Elections to meet its deadlines for statutory requirements as well as providing for efficiencies in the election process.

Resources Required

Resources	Request
ITS/ADSS staff	\$75,086
Total	\$75,086

5. Project Management for Elections Projects

5.1 Project manager

Issue

There are a large number of ongoing systems and process enhancements in addition to those sought by this supplemental request. These will need to be managed in a coordinated fashion to ensure timeliness and success.

Recommendation

There is significant work spanning multiple divisions and sections within the Department of Executive Services, including Elections, ITS and Facilities Management. There are approximately 25 different projects that must be well-coordinated and managed to ensure that events are happening in the right order. Putting a project manager in place will avoid delays of critical activities which could cause delays to multiple projects, potentially jeopardizing critical deadlines.

Once the project plan has been created and approved and work on specific projects has begun, this project manager will begin work on the requirements and selection of a replacement voter registration system.

Resources Required

Resources	Request
Project manager	\$70,717
Total	\$70,717