DATE: January 28, 2016

TO: Joint Powers Authority Board

FROM: Nancy Howe, County Librarian

SUBJECT: THREE-YEAR TECHNOLOGY REPLACEMENT AND IMPROVEMENT PLAN, FISCAL YEARS 2016/17 - 2018/19

RECOMMENDED ACTION

It is recommended the JPA Board adopt the Three-Year Technology Replacement and Improvement Plan and direct that $7,316,695 be transferred from fund balance to the designated Technology Reserve to finance the plan for Fiscal Years 2016/17 – 2018/19.

BACKGROUND

The JPA adopts a Technology Plan every three years which provides a budgetary framework for the Library’s acquisition of hardware and software, implementation of new technology, as well as wireless and network support. The last plan covered Fiscal Years 2013/14 - 2015/16. The purpose of this report is to provide a final synopsis of work completed in the 2013-2016 Plan and present the proposed Fiscal Year 2016/17 - 2018/19 Plan.

2013-2016 Technology Plan Review

Of the $5,631,69 allocated for the 2013-16 Technology Plan, nearly all projects were or will be completed. $150,000 was returned to the fund balance for the technology intern position which was contingent upon a grant which was not awarded. Any remaining unspent balances will be returned to the library fund balance at the end of this fiscal year.

Updated technology includes the replacement of self-check machines, self-service library payment stations, book scanners, updated microfilm readers and group work stations for collaboration. Innovative tools include maker boxes for teen use which support STEAM (Science, Technology, Engineering, Arts and Math). Various maker boxes include movie maker kits, robots and drones, and digital sound recording kits. Each library received a Tech ToolBar with eDevices (iPads, Kindles, Galaxy Nexus Readers) to promote eResources and educate patrons on their own devices.
With the elimination of the non-resident fee, the Library was able to rejoin the Pacific Library System consortium in Fiscal Year 2015/16. This is significant because the Library is now eligible to participate in CENIC, a state-wide broadband initiative program. As a result, by Spring 2016, the network bandwidth will have increased from 20 Mbps to 1 GB at each library. Internet connections will increase from 250 MB to 10 GB, vastly improving networking abilities. This will result in better computer and WiFi experiences for patrons and staff, as well as the ability to offer more streaming programs in future years.

The Library has also completed the multi-year project of migrating to a new integrated library software system, and work will continue in the next plan.

The replacement of the 10 years old Automated Materials Handling System (AMHS) may not be completed by the end of the fiscal year and funds may be encumbered. In addition, the self-vending 24 hour library unit to dispense holds and collections is an innovative idea which may have merit for certain areas of the county. The Library is undertaking a review of unincorporated areas, and may carry these funds over into the next fiscal year to continue this exploration.

As the 2015/16 Fiscal Year concludes, the library will continue the work of the existing plan, including replacing early literacy stations which support reading readiness for kindergarten, as well as laptops for staff in order to offer mobile labs for patron learning.

2016-2019 Technology Replacement and Improvement Plan

The Technology Reserve Fund was established as a designated budgeted reserve by the Joint Powers Authority Board to accrue financing for large, costly network and system upgrades, as well as equipment replacement identified in the Plan. Every three years the JPA is presented with a Technology Replacement and Improvement Plan which outlines major initiatives during the next fiscal years.

Proposed technology is evaluated using the following criteria to ensure that the Library acts in a fiscally responsible manner:

- Public benefit
- Enable public and staff self-service
- Enhance staff interaction with the public
- Accommodate service equity
- Training impact for both staff and the public
- Implementation costs in dollars and staff time
- Cost of equipment, software and ongoing maintenance
- Security
- Support efficiency
- Standards based architecture
• Space in existing buildings
• Remodeling and expansion projects
• “Must be done” (i.e., when a critical piece of hardware fails, equipment or software no longer being maintained, or current hardware cannot handle increased workload)
• Network stability and recovery

Network and System Infrastructure

The Library requires a fast, dependable network link between each library and library administration, which houses the servers and the Internet connection. The Internet connection must be fast and reliable. Servers and the Internet connection must be available 24 hour a day, seven days a week for access to the Library’s website, catalog and subscription databases and include reasonable failover servers, appropriate security and recovery capabilities.

In the next three years, the increased network capacity resulting from CENIC will be evaluated, and the Plan allocates funds for network enhancements, including wireless networks and routers.

Technology Replacement and Improvement

Security gates at each location have reached their end of life, and will be replaced during the first year of the new plan. In Year 3, money has been allocated for self-check replacements.

Technology in all community rooms will be reviewed, and equipment will be updated or replaced, such as projectors, sound systems, and microphones. This will create a better user experience and utilize the increased network capacity for initiatives such as streaming programs.

Although the website has been continually enhanced, a full website redesign has not been done in four years. Enhancements to user experience, access, and responsive web design for mobile devices will be addressed.

In Fiscal Year 2015/16, the Library migrated to a new integrated library software system. The Plan allocates funds for continued customization and optimization of the product, as well as a one-year review by a consultant. Should the review result in a recommendation to change the system, funds have been allocated to support this. The funds will return to fund balance should they not be needed.

During the next three years, money has been set aside for mobile devices for staff for roaming and outreach. Additional devices allocated to each library will also increase staff ability to issue library cards at schools and community events.
Technology to Enhance Patron Experience

Support of patron digital literacy remains a priority for the Library. Line items in the Plan include technology to support literacy, tech learning for the public, and displaying and/or loaning devices for the public. The categories are broad enough for responsiveness to changing needs. Identified initiatives include mobile devices for the Reading Program, so that adult learners and tutors will have devices pre-loaded with apps to support grammar, pronunciation, reading and appropriate tools; adding additional software to public computers, and investigation of loaning additional devices to respond to patron needs.

Staff and Public Computers

Existing equipment needs to be replaced on a regular basis. Cost of maintenance increases with age, while the capacity, speed and functionality of equipment increases with each development generation. The replacement cycle for public and staff computers is 4 years. Demand for public computers remains consistent. In Fiscal Year 2014/15, there were 668,748 public computer sessions on our 521 computers, with an average session lasting 53 minutes. The 2016-2019 Technology Plan includes new computers and updated software for staff and public computers.

Budget

The total three-year budget of $7,316,695 includes network improvements, hardware replacement and innovation. Costs are spread throughout the three years, with the bulk of expenditures in Year 1.

Summary

The Library must be prepared to take advantage of new products and technologies which will enable the Library to better serve the information needs of our clientele, run an efficient workplace, and take advantage of self-service components for both staff and the public. The Santa Clara County Library District must continue to meet the high expectations of the residents of Silicon Valley by using the opportunities for improved service offered by new technology. The Plan will be reviewed annually by the JPA.

FISCAL IMPLICATIONS

Adoption of this plan does not commit the Board to the expenditures or timing outlined herein. Each fiscal year, the proposed technology expenditures will be presented in the Budget document for the Board’s decision to appropriate funding.
<table>
<thead>
<tr>
<th>No.</th>
<th>Item Description</th>
<th>FY 2016/17</th>
<th>FY 2017/18</th>
<th>FY 2018/19</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Replacement of public computers, ADA stations, and updated software</td>
<td>$1,550,000</td>
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<td>2</td>
<td>Replacement of staff computers and updated software</td>
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<td>3</td>
<td>Updated audiovisual equipment, wireless microphones for each community room, including the Services and Support Center</td>
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<td>$650,000</td>
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<td>4</td>
<td>Displaying and/or loaning smart devices for the public</td>
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<td>$148,017</td>
<td>$30,000</td>
<td>$276,695</td>
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<td>Tech learning for the public including instruction, hardware and software</td>
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<td>$100,000</td>
<td>$100,000</td>
<td>$300,000</td>
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<td>6</td>
<td>Mobile devices for staff outreach and in-library activities</td>
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<td>$25,000</td>
<td>$115,000</td>
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<td>Technology to support literacy</td>
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<td>Phone system upgrade</td>
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<td>Security gates replacement</td>
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<td>Self-check machines replacement</td>
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<td>WiFi network upgrade to provide more coverage</td>
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<td>Network enhancements</td>
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<td>13</td>
<td>Website redesign, user testing, and enhancements</td>
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<td>14</td>
<td>Servers and Data Storage needs, UPS replacement</td>
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<td>Integrated Library System (ILS) review, customization and enhancements</td>
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<td>Integrated Library System (ILS) update, contingent upon review of current system</td>
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<td><strong>Total All Priorities</strong></td>
<td><strong>$4,823,678</strong></td>
<td><strong>$1,343,017</strong></td>
<td><strong>$1,150,000</strong></td>
<td><strong>$7,316,695</strong></td>
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