

## Library Service Analysis and Recommendations

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### Executive Summary

The Butte County Library (BCL) serves the residents of Butte County through six library branches, supported primarily from the General Fund of Butte County. The branch libraries are located in the communities of Biggs, Chico, Durham, Gridley, Oroville and Paradise.

In past, the Chico branch received additional funding from the City of Chico. When that funding was eliminated for Fiscal Year (FY) 2015-16, staff and service hours were reduced in Chico, causing a compression of services that has been unpopular with Chico library users. In response, the Chief Administrative Officer asked the Library Department to do a thorough analysis of library operations throughout the County.

The investigation, which has taken the form of a countywide service analysis, is intended to address the needs in Chico while also looking holistically at library services throughout the County. Conducted in July and August 2015, the service analysis collected information about library usage, staff schedules/duties, comparable library metrics and suggestions from staff and the public.

Subsequent to the initiation of this project, the Library was the beneficiary of a \$330,000 donation. This generous donation was a bequest from the estate of Martha Dunbar and provides the opportunity to make some strategic one-time investments in the Butte County Library to improve efficiencies and service to the public on an ongoing basis.

**The results of the analysis show that, while use of the library is very high, service hours, staff duties and use of automation could be adjusted to better serve Butte County residents and create greater efficiencies.**

The service analysis revealed four major service impediments and inefficiencies:

- **Need for additional high-impact library services.** Most communities would benefit from additional story times, programming, outreach and other high-impact library services.
- **Lack of technological efficiencies.** Some of the Library's technological solutions need modernization, such as patron self-service technology and automated patron notifications. Modern libraries utilize such technological efficiencies to serve the public while focusing staff resources on high-impact activities.
- **Library hours not aligned with community needs.** Branch library hours are not meeting the needs of the communities served.
- **Insufficient regular help staff; high usage of extra help staff.** The library lacks sufficient regular help staff to cover open hours, relying on extra help to maintain service hours. Individual branch librarians spend significant time scheduling limited extra help staff, which are shared by all branches. Further concerns include the ongoing training,

recruitment, schedule limitations and customer service challenges associated with extra help staff.

Staff identified several recommendations that could increase the impact of library services while strategically investing in technology to create efficiencies and maximize public service within limited resources.

#### **Recommendation One.**

- Restructure branch staff schedules so that regular help staff are scheduled for all open hours of operation at Chico, Durham, Gridley, Oroville and Paradise branches.
- Switch Chico's longest hours from Thursday to Tuesday, the busiest day of the week.
- Add two hours per week in Gridley, Oroville and Paradise by redistributing current staff at those branches and moving a 0.5 FTE from Durham to Gridley.

**Community Impact.** Improve community access to the library through adjusted library hours.

**Budgetary Impact.** None.

#### **Recommendation Two.**

- Implement cloud-based staff scheduling software for more efficient, centralized scheduling of extra help.
- Increase hours for a Limited Term Office Specialist to perform substitute scheduling duties.
- Implement other miscellaneous minor efficiency improvements, such as SMS/Text Message patron notifications, coin-op printing, and software enhancements.

**Community Impact.** Increase branch librarian capacity to provide day-to-day leadership and longer-term strategy in branch communities, in lieu of time spent on extra help scheduling.

**Budgetary Impact.** \$14,080 FY 2015-16 (\$4,500 staffing); \$13,530 ongoing (\$9,000 staffing).

#### **Recommendation Three.**

- Add modern automation, sorting and patron self-service technology to the Chico branch, which has the largest circulation and whose staff is most impacted by the volume of routine circulation-related duties.
- Use up-to-date RFID (radio frequency identification) technology, standard in many modern libraries. (The full RFID system includes tags for materials, self-service check-out and check-in, security detection, and automated materials handling and sorting.)

**Community Impact.** As RFID is successfully implemented, add high-impact services and programs in Chico, such as storytime and computer classes, by reducing staff time previously spent on routine circulation and materials handling. Increased efficiencies would potentially allow for extending library hours and/or some fiscal savings when implementation is complete.

**Budgetary Impact.** \$414,803 FY 2015-16; \$23,361 ongoing.

#### **Recommendation Four.**

- Add modern automation and patron self-service RFID technology to Gridley, Oroville and Paradise branches, and limited RFID upgrades to Biggs and Durham branches.

**Community Impact.** As RFID is successfully implemented, add high-impact services and programs in these communities by reducing staff time previously spent on circulation duties. Increased efficiencies would potentially allow for extending library hours and/or some fiscal savings when implementation is complete.

**Budgetary Impact.** \$238,445 FY 2015-16; \$20,237.

**Recommendation Five.**

- Increase service hours at the Chico branch now by hiring two half-time (1.0 FTE) limited term Library Assistants through December 2016.
- If RFID is successfully implemented (as above), efficiencies may allow for the limited term positions to be ended without loss of additional hours.

**Community Impact.** Restore popular weekday morning hours; adjust children's storytime schedules to include weekday morning programs, the preferred schedule.

**Budgetary Impact.** \$47,344 (for 12 month period, January-December 2016).

## Preliminary Budget Estimates - Recommended Library Services Changes

Revision: 10/15/2015

Recommendation	First Year	Annual Cost
<b>Recommendation Two: Centralized scheduling and minor efficiency improvements</b>		
Office Specialist move to 38 hours per week	\$ 4,500.00	\$ 9,000.00
When-to-Work Staff scheduling	\$ 580.00	\$ 580.00
SMS/Text notifications	\$ 3,500.00	\$ 450.00
ILS (library system software) enhancements	\$ 3,000.00	\$ 3,000.00
Coin-op print release for Oroville	\$ 2,500.00	\$ 500.00
<b>Total Costs, Recommendation 2</b>	<b>\$ 14,080.00</b>	<b>\$ 13,530.00</b>
<b>Recommendation Three: Chico full RFID automation</b>		
Automated handling machine	\$ 215,500.00	\$ 8,476.00
RFID components and installation	\$ 96,100.00	\$ 8,476.00
Credit/debit self check (2 units @ \$1799/unit)	\$ 3,598.00	\$ 362.00
Annual cost of tags	\$ -	\$ 3,000.00
Site work	\$ 45,500.00	\$ -
Permitting General Services/design costs	\$ 77,697.20	\$ -
Travel and education costs	\$ 1,000.00	\$ -
Publicity and customer training	\$ 2,500.00	\$ -
<b>Chico subtotal</b>	<b>\$ 360,698.00</b>	<b>\$ 20,314.00</b>
<i>Contingency</i>	<i>\$ 54,104.70</i>	<i>\$ 3,047.10</i>
<b>Total Costs, Recommendation 3</b>	<b>\$ 414,802.70</b>	<b>\$ 23,361.10</b>
<b>Recommendation Four: Oroville, Paradise, Gridley RFID automation</b>		
Oroville	\$ 32,680.00	\$ 3,594.00
Site work	\$ 19,000.00	\$ -
Paradise	\$ 55,443.40	\$ 3,594.00
Site work	\$ 19,000.00	\$ -
Gridley	\$ 47,440.60	\$ 3,324.00
Site work	\$ 19,000.00	\$ 3,324.00
Handheld RFID scanner (shared)	\$ 3,999.00	\$ 399.00
Credit/debit self check (2 units @ \$1799/unit)	\$ 3,598.00	\$ 362.00
Annual cost of tags	\$ -	\$ 3,000.00
Permitting General Services/design costs	\$ 3,682.64	\$ -
Travel and education costs	\$ 1,000.00	\$ -
Publicity and customer training	\$ 2,500.00	\$ -
<b>Oroville, Paradise, Gridley subtotal</b>	<b>\$ 207,343.64</b>	<b>\$ 17,597.00</b>
<i>Contingency</i>	<i>\$ 31,101.55</i>	<i>\$ 2,639.55</i>
<b>Total Costs, Recommendation 4</b>	<b>\$ 238,445.19</b>	<b>\$ 20,236.55</b>
<b>Recommendation Five: Increase Chico service hours now</b>		
2 half-time Library Assistants (total 1.0 FTE) for 12 months @ 23,672 each	\$ 47,344.00	\$ -
<b>Total Costs, Recommendation 5</b>	<b>\$ 47,344.00</b>	<b>\$ -</b>
<b>Total Costs for RFID Automation</b>	<b>First Year</b>	<b>Annual Cost</b>
<b>Recommendations 3 and 4</b>	<b>\$ 653,247.89</b>	<b>\$ 43,597.65</b>

## Background

Butte County Library has served the residents and visitors of Butte County for over 100 years. Currently, the library has six branches located in the communities of Biggs, Chico, Durham, Gridley, Oroville and Paradise. The service hours and staffing at each branch differ based on the population and needs of the particular community served.

Located in the largest community in the county, the Chico branch has the longest service hours, the most staff and the largest number of visitors. In the past, the City of Chico has funded additional funds which supported staff costs and funded an extra day and additional open hours. When the City of Chico eliminated the funding for FY 2015-16, 2 FTE Chico branch staff and 14 corresponding open hours were eliminated effective July 1, 2015.

After July 1, residents' use of the Chico branch did not diminish appreciably; the branch became considerably busier during its remaining open hours and staff received many complaints from the public regarding the reduction in hours and long lines at the circulation desk. Library storytimes were particularly impacted. In response, the Chief Administrative Officer asked the Library Department to do a thorough analysis of library operations throughout the County. The analysis is intended to address the needs in Chico while also looking holistically at library services throughout the County.

The analysis has provided valuable information about the library services in Butte County as well as strategic recommendations to improve services. The big-picture view shows a desire for increased service, staff and hours in most branches. The close look has also revealed that artifacts of earlier downsizing, restructuring, and incremental changes have built some inefficiency into the library system, some of which can be addressed through general management practices. However, the analysis also indicates that the library could best increase overall efficiency through improved implementation of modern automation systems.

Subsequent to the initiation of the service analysis, the Library was the beneficiary of a \$330,000 donation. This generous donation was as a bequest from the estate of Martha Dunbar and provides the opportunity to make some strategic one-time investments in the Butte County Library.

The following data were collected and analyzed for the service analysis.

- Review of current branch hours and staff schedules.
- Review of library staffing over past ten years.
- Library use metrics at each branch library.
- Library use metrics for the Butte County Library system and peer libraries.
- Information about peer library funding sources.
- Number of visitors coming and leaving per hour at each branch.
- Number of users of each branch during each hour of the day.

- Staff “desk audit,” tracking work duties of every branch staff member.
- Service population and community demographics for each branch, including zip code and US census data.
- Circulation statistics, including number of items checked in and out per hour.
- Number and type of customer questions received by each staff member.
- Library program attendance.
- Use of extra help staff.
- Survey of all staff, including extra help staff.
- Spring 2015 community survey comments.

Because of a short turnaround, the analysis was conducted during July, August and September 2015 only. Late summer months have a history of a mixed level of use and busyness for libraries. These months do not reflect the level of service needed during the school year. Staff believes a more complete picture will be drawn by conducting a quarterly collection of library usage data by hour, incorporating these data collections into a final assessment. When moving forward with any Board recommendation, the library will continue to collect and monitor metrics to note progress and make course corrections as necessary.

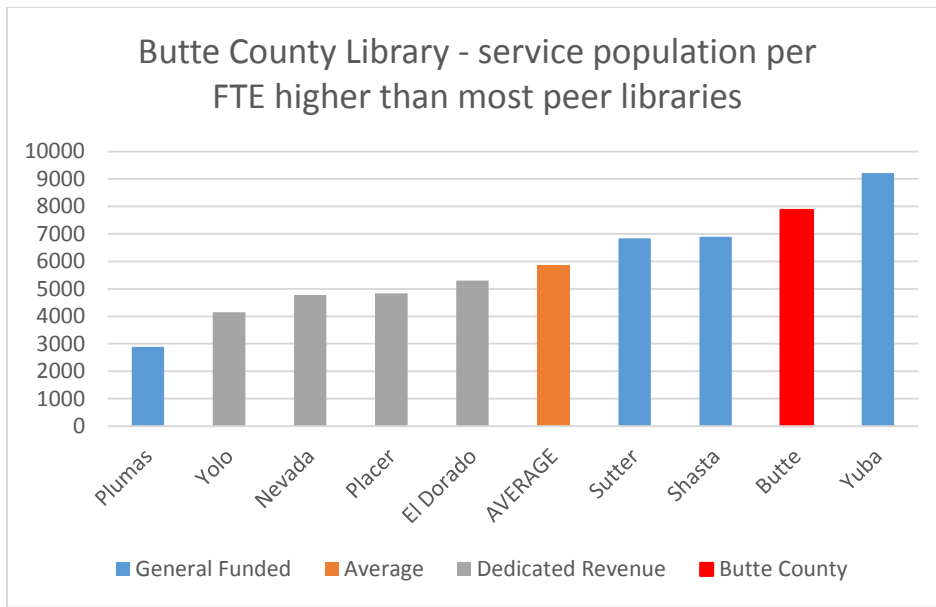
## **Butte County Library System**

Butte County Library is committed to supporting Butte County residents with free access to books and other media, e-resources, technology, programs and services to assist in lifelong learning. The six branch libraries also serve as community gathering places, while Library Literacy Services responds to needs throughout the entire county. A robust virtual library provides 24-hour access to online e-materials and information.

Library visits, circulation of materials, program attendance and digital resource usage continue to remain strong every year, showing that the public library remains an integral part of life in Butte County. The number of active library users has climbed steadily, increasing 35% in three years from 80,135 in June 2012 to a record high of 108,119 in October 2015. In FY 2014-15, library users borrowed nearly one million materials, including many thousands of digital items. And in the last year alone, library program turnout increased by nearly 9000 as attendees enjoyed storytimes, computer classes, health workshops, book clubs and many other activities for all ages.

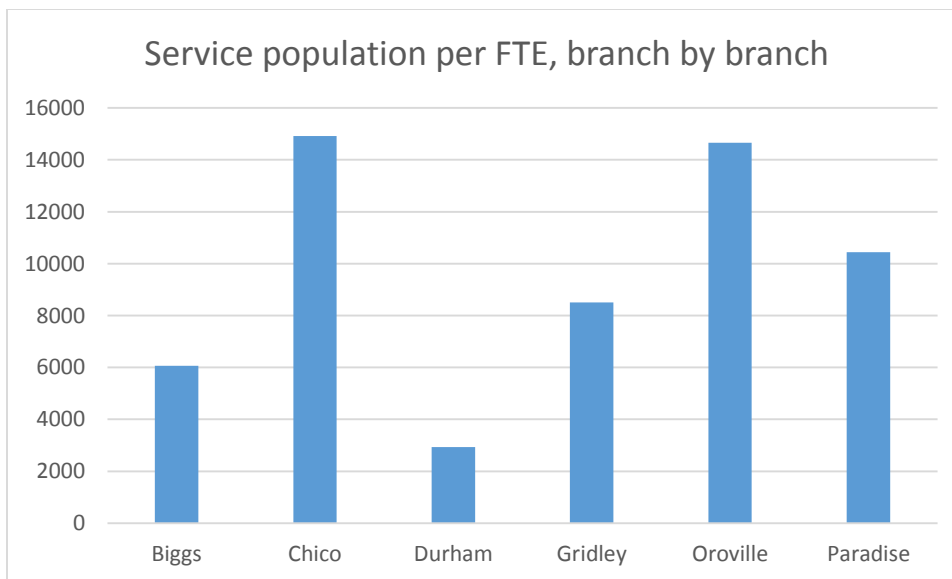
The library has borne these increases in use without a corresponding increase in library staff. Over the last five years, the branch staffing levels have averaged around 19.5 full-time library employees; the current branch staffing for FY 15-16 is 19.25 FTE regular help staff. Extra help staff are also necessary in order to provide coverage for employee leaves, some programs/outreach and also for basic operations in several branches. Overall, the staff works very hard to respond to community needs, provide modern library service and deliver a high level of customer satisfaction in all the library offers.

However, the staffing levels can still make it challenging to meet service demands and needs of the public. In comparison with other similar Northern California county library systems, Butte County has a relatively low level of staffing for its large population served. Exhibit 1 below shows that the ratio of Butte County service population to full-time regular help staff is higher than all but one of the peer library systems. Note that many of the other comparable libraries have some additional dedicated tax funding. Only Plumas, Sutter, Shasta and Yuba (in blue) are primarily General-Funded, as is BCL (shown in red).



**Exhibit 1. Butte County Library has a relatively low level of staffing. Butte shown in red; other General-Funded libraries shown in blue; average shown in orange. Data from FY 2013-14.**

Butte County Library's limited staff resources are particularly problematic in the three largest branches. Exhibit 2 below shows that Chico and Oroville branches are strikingly understaffed compared to other BCL branches. No other comparable library system, as a whole, has a ratio greater than 10,000 population per FTE staff (Exhibit 1 above shows an average ratio under 6000).

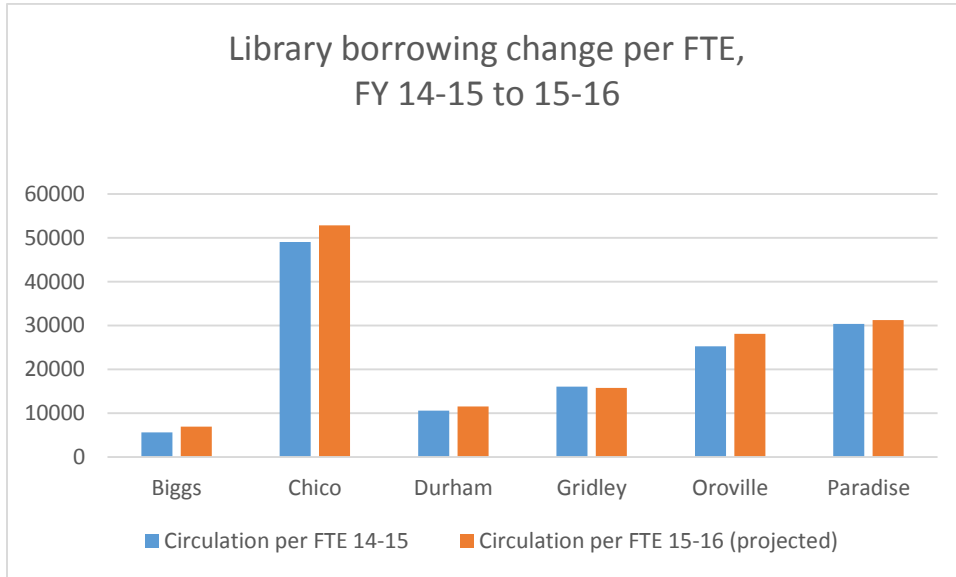


**Exhibit 2. Butte County Library branches vary in population served per FTE, with Chico and Oroville highest. Data from FY 2015-16.**

The data is also striking when looking at library circulation (the number of materials borrowed by library users) per FTE. This is one way to measure the usage of a library branch in relation to its



staff. Compared with the peer libraries, Butte County has a circulation rate higher than all but two, similar to the service population ratio. The Chico branch has always had significantly high circulation use in Butte County, and all branches are seeing an increase in borrowing per FTE this fiscal year. Exhibit 3 below shows the relative increase between all the library branches.

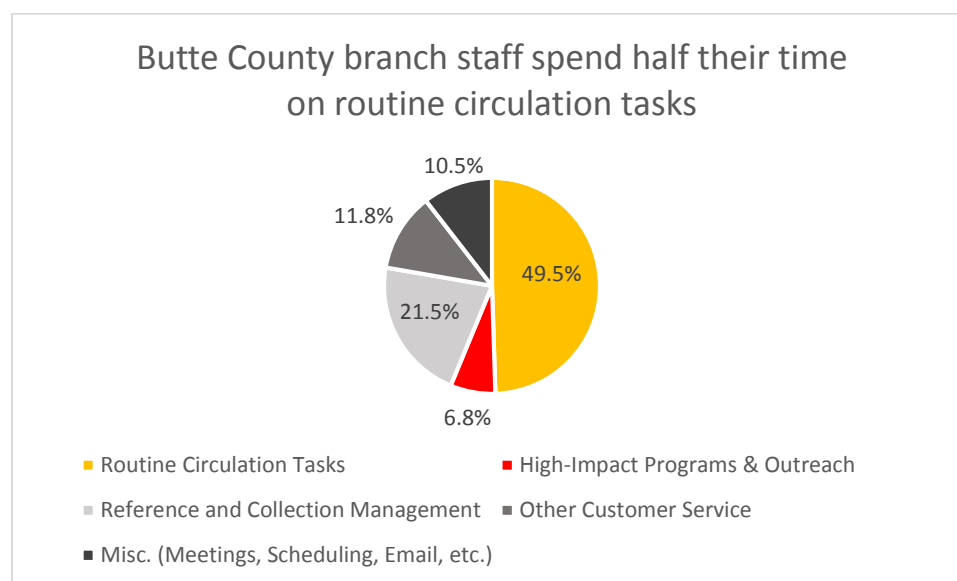


**Exhibit 3. Circulation per FTE by branch. Data from FY 2014-15 and projected FY 2015-16 (based on July-September).**

## Automation Solutions

Although circulation of library materials is vital to library service, and clearly important to Butte County residents, it need not be the primary focus of all staff, given how well automated solutions can assist library patrons with such needs. The impact of circulation on staff could be significantly reduced with automated materials handling. A staff “desk audit” during August 2015 showed that approximately 50% of all staff time was spent on routine circulation tasks which could be effectively automated through new, up-to-date technology. In contrast, the same audit showed that less than 7% of all staff time was spent on activities such as planning and leading programs or outreach.

Automation has the potential to flip these two percentages, significantly increasing library staff capacity to offer high-impact library services to Butte County residents, for which there is demand. A spring 2015 survey of the general public throughout the County, including both library users and non-users, captured almost 2000 responses requesting more library programming, including technology training, resume or job-searching classes, citizenship classes and other additional adult or children’s activities throughout the county. Exhibit 4 below graphically shows the disproportionate amount of staff time spent on tasks that could be done almost completely through automated materials handling.



**Exhibit 4. Breakdown of branch staff time by general task type. Data from staff desk audit, August 2015.**

Current BCL procedures involve library staff in almost every aspect of materials circulation, hence the large proportion of staff time involved with such tasks. The Library now offers limited automation through patron self-check-out at the Chico, Oroville and Paradise branches. However, the technology used is outdated, can be difficult for patrons to use and still requires a high level of staff intervention. As a result, it is not truly self-service. In contrast, the current, long-standing automation standard in public libraries is Radio Frequency Identification (RFID), which allows for patron self-service check-out *and* check-in. It is simpler to learn and use, and

also reduces staff involvement in other parts of the materials handling process, such as sorting of items. The RFID technology reduces errors and theft, thereby providing better customer service and also more effectively maintaining the library's resources. As shown by Exhibit 3 above, automation could prove particularly critical in the Chico branch with its strikingly high circulation figures. (At least half of Butte County's peer library systems, as named in Exhibit 1 above, use RFID automation.)

Based on experiences of the many other libraries that have implemented RFID automation, the library anticipates that successful implementation will allow staff to reallocate their time away from routine circulation procedures and toward high quality services that cannot be done by automated methods. For example, when RFID was installed at the Roseville Public Library in the last two years, Roseville was able to broaden the library's outreach efforts and implement the use of a bookmobile to further serve the community in a new way. In addition, patron self-service increased to 98% of all circulation transactions; both customer and staff satisfaction were extremely high.

To take a broader view of RFID use in libraries, staff also consulted a 2006 study of California libraries, funded by the US Institute of Museum and Library Services. The study found that 78% of libraries using RFID realized a cost stabilization or reduction of staffing costs. 70% of the libraries saw improvement in patron satisfaction and 90% saw an increase of customer self-service. (Review <http://www.kcoyle.net/RFIDCostsBenefits.pdf> for more information.)

Fully implementing RFID technology in the Butte County Library would involve several steps and would be a process of 6-12 months if implementation took place at all branches simultaneously. Library items would be tagged with RFID transmitters and workstations would be installed. (See appendix 1 for more information.) Due to differing circulation needs between branches, the automation would be employed as follows:

- Chico: fully automated patron self-service technology and automated sorting.
- Gridley, Oroville and Paradise: fully automated patron self-service technology.
- Biggs and Durham: RFID tagging only.

In addition to the installation and preparation time, some period of patron adjustment would be expected as library staff help users to adapt to the new technology. As the process continues, and RFID adds circulation efficiencies, staff would be able to begin focusing more time and effort on higher-impact tasks. It is possible that RFID would also create efficiencies significant enough to allow the same number of staff to open the library branches for additional hours. This potential will be carefully gauged throughout the process. In the meantime, library service will increase based on the ability of staff to provide fundamentally more robust programs and outreach.

## Branch Library Staffing

Library services provided at each of the six BCL branches vary depending on community needs. The following chart shows various metrics demonstrating that service population, library card holders, hours, staffing and number of visits vary somewhat from branch to branch.

	<b>Biggs</b>	<b>Chico</b>	<b>Durham</b>	<b>Gridley</b>	<b>Oroville</b>	<b>Paradise</b>
Service population	3,336	119,388	4,015	13,517	52,226	41,776
Library card holders	440	55,720	1201	6,306	24,514	18,018
FTE staff	0.55	8	1.37	1.7775	3.5625	4
Days open weekly	2	6	5	6	6	6
Hours open weekly	12	44	30	34	39	39
Visits per month	229	26,986	1047	3879	11,568	10,397

Exhibit 5. Branch library metrics, fiscal year 2015-16. Visits are an average of July-September 2015.

Hours of service increased at most branches in 2013 when the Board of Supervisors voted to add Sunday afternoon hours to Chico, Gridley, Oroville and Paradise, and Saturday hours to Biggs. 1.0 FTE staff were added to the Chico branch to help cover these new hours, while other branches' additional hours were covered by extra help staff. As the new Sunday hours have become more popular in the larger branches, adequate staffing has also become a concern.

While the use of extra-help staff allows for some flexibility, it also creates challenges due to schedule limitations, ongoing training needs, recruitment difficulties, and consistency issues arising from reliance on these temporary employees. Because the library branches have limited regular help on any day of the week, extra help must also be used to provide coverage during staff leave (planned or unplanned) and vacancies. As a result, branch librarians each spend several hours weekly managing extra-help staff schedules, often scrambling to find a last-minute substitute amongst the limited pool of extra help when an unexpected absence occurs.

Changing both regular help staff schedules and the procedure for scheduling extra help would help create more consistent service for branch library visitors as well as more efficient use of branch librarian time. Moving to cloud-based staff scheduling software, along with centralizing the extra-help scheduling to be done by the library's Office Specialist, would increase the branch librarians' capacity to provide more essential day-to-day leadership in the branch libraries as well as free time to work on longer-term strategy in the communities. Restructuring branch staff schedules so that regular help staff are scheduled for all open hours at the four larger branches would provide a more reliable staffing profile, with regular help staff always available to assist with on-the-job training for extra help who may work fewer than 10 hours weekly.

(Note that the Biggs library is primarily staffed by one extra-help employee, with the guidance of a branch librarian. Long-term, the library will continue to look at adding dedicated regular help staff for Biggs.)

## Branch Library Service Hours

The branch libraries' service hours are meant to provide varied times for library access in order to serve the demographics of each community. Evening, weekday and weekend hours provide flexibility for working families, jobseekers, students, retirees and other community members. Nonetheless, additional data suggests that library hours are not fully meeting the needs of communities served. A spring 2015 public survey garnered 155 open-ended responses asking for more library hours, including specific requests for earlier morning hours in Oroville and later evening hours in Paradise. (Note that the survey was conducted *before* Monday and other weekday morning hours were cut in Chico on July 1. Customer complaints since July 1 have focused on the impact of the abrupt loss of those hours.)

With some redistribution of current staff schedules, the library can make small changes in order to provide longer, or more optimal, hours for Butte County communities. These changes can be made with no additional ongoing staff funding. See exhibit 6 below for details.

- **Chico:** Swap Tuesday and Thursday schedules. Hour per hour, Tuesday is the Chico library's busiest day for visits, circulation, computer use and questions asked. The library is now open only 8 hours on Tuesdays. On Thursdays, a day which is slower overall, the library has 9 service hours. These service hours would be switched. (Without additional staffing, no additional library hours could be added.)
- **Gridley:** Redistribute the Gridley, Durham and Biggs staff so that Gridley can open an additional two hours per week on Thursday and Friday afternoons. Gridley has a high population of school-aged children who can be better served with longer afternoon hours.
- **Oroville:** Shift staff schedules to allow two additional morning hours on Tuesdays and Wednesdays. Because rural residents come from far reaches of the county during weekday business hours in order to access services such as banking, court, DMV and other "in-town" offerings, they often visit the library during these times. Oroville library use is correspondingly, and dramatically, highest on Tuesday and Wednesday mornings.
- **Paradise:** Shift staff schedules to allow two additional evening hours on Tuesdays and Wednesdays. Staff and library users have identified a need for longer evening hours in order to accommodate the working residents of Paradise who commute to jobs outside of the town.

(Note: the service analysis determined that many Biggs and Durham residents are served by other Butte County Library branches. 71% of Biggs residents have library cards, but approximately 2/3 of these card-holders choose to use other branches as their primary library service location. Similarly, although 40% of Durham residents have library cards, about 45% use other locations. This is to be expected, as many Biggs and Durham residents work and shop outside their hometowns. Weekday library hours at these branches correspond with standard business hours, potentially limiting library use by some Biggs or Durham residents working elsewhere.)

<b>Branch</b>	<b>Current Schedule</b>	<b>Recommended Schedule</b>
<b>Biggs</b>	Tuesday 12 pm – 6 pm	<i>no change</i>
	Saturday 10 am – 4 pm	<i>no change</i>
<b>Chico</b>	Sunday 1 pm – 5 pm	<i>no change</i>
	<b>Tuesday 11 am – 7 pm</b>	<b>Tuesday 10 am – 7 pm</b>
	Wednesday 11 am – 7 pm	<i>no change</i>
	<b>Thursday 10 am - 7 pm</b>	<b>Thursday 11 am – 7 pm</b>
	Friday 10 am – 5 pm	<i>no change</i>
	Saturday 9 am – 5 pm	<i>no change</i>
<b>Durham</b>	Tuesday 12 pm – 6 pm	<i>no change</i>
	Wednesday 12 pm – 6 pm	<i>no change</i>
	Thursday 10 am – 4 pm	<i>no change</i>
	Friday 10 am – 4 pm	<i>no change</i>
	Saturday 10 am – 4 pm	<i>no change</i>
<b>Gridley</b>	Sunday 1 pm – 5 pm	<i>no change</i>
	Tuesday 12 pm – 6 pm	<i>no change</i>
	Wednesday 12 pm – 6 pm	<i>no change</i>
	<b>Thursday 10 am – 4 pm</b>	<b>Thursday 10 am – 5 pm</b>
	<b>Friday 10 am – 4 pm</b>	<b>Friday 10 am – 5 pm</b>
	Saturday 10 am – 4 pm	<i>no change</i>
<b>Oroville</b>	Sunday 1 pm – 5 pm	<i>no change</i>
	<b>Tuesday 11 am – 6 pm</b>	<b>Tuesday 10 am – 6 pm</b>
	<b>Wednesday 11 am – 6 pm</b>	<b>Wednesday 10 am – 6 pm</b>
	Thursday 10 am – 5 pm	<i>no change</i>
	Friday 10 am – 5 pm	<i>no change</i>
	Saturday 10 am – 5 pm	<i>no change</i>
<b>Paradise</b>	Sunday 1 pm – 5 pm	<i>no change</i>
	<b>Tuesday 11 am – 6 pm</b>	<b>Tuesday 11 am – 7 pm</b>
	<b>Wednesday 11 am – 6 pm</b>	<b>Wednesday 11 am – 7 pm</b>
	Thursday 10 am – 5 pm	<i>no change</i>
	Friday 10 am – 5 pm	<i>no change</i>
	Saturday 10 am – 5 pm	<i>no change</i>

Exhibit 6. Branch library hours showing recommended change in service hours using existing staff.

## **Library Services Analysis Appendix #1: RFID in Public Libraries**

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Many public libraries use a radio frequency identification (RFID) system for purposes of patron self-service and security. RFID technology speeds up the borrowing process for library users, improves inventory management, reduces errors, automates the handling of most library materials, and provides a security system to protect materials from theft. Libraries began using this technology in the mid-1990s to increase efficiencies for both library users and staff.

### **What is RFID?**

RFID is a data collection technology that relies on radio waves to automatically identify items, such as books, DVDs and other library media. Each library item has a unique RFID tag. The technology transfers data via radio waves from the item's tag to a reader connected to the library's circulation database, allowing both patrons and staff to check items in and out. The technology also makes it easy to identify items which have not been properly borrowed.

### **Is any personal information stored on the RFID tag?**

No personal information is recorded on the RFID tag when an item is checked out or checked in. The only information stored on the tag is the barcode of the item. Links between borrowers and the items they borrow are maintained in the Library's internal circulation system and are broken after the item is returned.

### **Can the RFID tag be read once an item leaves the library?**

RFID tags used in library applications do not have an internal power source or transmitter. They can only be read from a short distance (1-2 feet or less) when the tag reflects a signal from a properly-calibrated RFID reader. Therefore, it is not possible for someone to read the tag from the street or another building or by satellite.

### **Are there any health risks associated with RFID and radio waves?**

The radio waves in the library's RFID system operate at 13.56 MHz, which is at the low end of the electromagnetic spectrum. The waves coming from RFID readers in the library have approximately the same strength as those coming from a car radio.

More information about the use of RFID technology in public libraries can be found here:

American Library Association fact sheet on RFID:

<http://www.ala.org/tools/libfactsheets/alalibraryfactsheet25>