

# FINAL REPORT - RLF Systems and Workflows

Submitted to Council of University Librarians

April 8, 2016

## Background:

In 2014/15 the University of California (UC) Library system conducted an exploration of a shared Integrated Library System (ILS) for the UC libraries.<sup>1</sup> The report surfaced opportunities for collection analysis and resource sharing as well as challenges with the high complexity and cost of moving to a shared technology platform. In conversations about this report it was clear that the Regional Library Facilities (RLFs) might provide useful examples of opportunities for shared technology platforms that solve problems while minimizing the costs and challenges (e.g., enabling positive impacts in interoperability such as collection analysis, resource sharing and shared print).<sup>2</sup> The UC Council of University Librarians (CoUL) thus established a project team charged with exploring the opportunities and challenges of shared systems, data exchange and workflows between the RLFs and between the RLFs and campuses.<sup>3</sup> The full charge for the RLF Systems and Workflows Project Team is available in this document.<sup>4</sup>

## Summary:

The team was charged with identifying workflows and information systems<sup>5</sup> in use at the RLFs and on campuses with the goals of 1) building a baseline understanding of workflows, data flows, and system functionality, 2) conducting a systems analysis with gathered information to identify redundancies as well as gaps in RLF-to-RLF, campus-to-RLF and RLF-to-campus workflows and systems, 3) studying these redundancies and gaps with a focus on establishing business cases to justify continued or new systems and workflows, and 4) framing recommendations and potential action plan via a report to CoUL.

In order to gather needed data, the project team met with RLF staff as well as representatives from each depositing campus and the California Digital Library (CDL). The project team identified multiple opportunity areas where efficiencies could be gained and analyzed these, arriving at the three most significant: 1) improved duplicate detection (between campus and RLF holdings) for campus libraries, 2) consistent metadata management across the RLFs, and 3) aligned workflows for RLF deposit processes. **The recommended option for addressing each of the identified opportunity areas is to explore the establishment of a shared ILS between the RLFs. The group felt that there is considerable potential in integrating the NRLF data into SRLF's Voyager system as opposed to the implementation of a completely new system. Such an integrated approach could increase efficiency for both campuses and RLFs without incurring the cost and time associated with a completely new system implementation.**

The team recommends that a new RLF ILS Design and Implementation Team (RLFILSDIT) be charged to consider the fiscal, logistical, technological, and policy issues inherent in merging the bibliographic, holding and item records of the two RLFs into one ILS. This team will submit an interim report to CoUL, outlining the feasibility, cost and expected impact of this work, as well as parameters needed to achieve success with such a data integration, six months after start of work, with a final report three to six months later.<sup>6</sup>

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<sup>1</sup> <http://libraries.universityofcalifornia.edu/sag3/shared-ilsrms-task-force>

<sup>2</sup> Please see Appendix B for a brief history of the RLFs, an outline of their current capacity and a normalized workflow between the two facilities and their traditional depositors.

<sup>3</sup> Please see Appendix C for a list of RLF Systems and Workflows Project Team members.

<sup>4</sup> Please see Appendix G for the full charge of the RLF Systems and Workflows Project Team.

<sup>5</sup> Appendix D includes high-level documentation on the workflows and information systems in use at the RLFs and at depositing campuses.

<sup>6</sup> Please see Appendix A for a draft charge for the RLFILSDIT.

## Discussion/Analysis:

The RLF Systems and Workflows Project Team designed a three-part methodology for data gathering and analysis: 1) RLF workflow and process identification, 2) campus workflow and needs assessment and 3) process and service business case analysis. This method grounded the study in the service portfolio of the RLFs and sought to create a complete picture of the work associated with these services both at the campus and RLF level. The group obtained significant documentation from each campus depositor, and conducted and documented interviews with staff at the RLFs, the depositing UC campus libraries and CDL.<sup>7</sup> Using a business case analysis methodology, the group reviewed the documentation and the interview results in order to identify and address redundancies and gaps, determine possible solutions to address these redundancies and gaps, and assess risks and opportunities associated with the possible solutions. While campus depositors articulated more than 10 unique areas of opportunity for improvement,<sup>8</sup> upon careful analysis, these clustered in three primary business cases: 1) improved duplicate detection for campus libraries, 2) consistent metadata management across the RLFs, and 3) aligned workflows for RLF deposit processes.

**Overall, the project team found that the policies that shape the RLF collections (e.g., persistence, non-duplication, shared print) have encouraged campuses and the RLFs to treat the collections as a shared collection. Emerging projects such as the Journal Archiving Campaign Service (JACS) and the statewide federal documents collection serve as examples of the potential for shared collection management. At the same time, we found that the information systems and practices in place to support the RLFs and campuses in managing and sharing holdings deposited at the RLFs have not kept up with a shared collection model.**

**Improved duplicate detection for campus libraries:** Campus interviews surfaced a wide range of practices in place to adhere to the non-duplication policy articulated in the RLF persistence policy, work which is often repeated at the RLFs upon item deposit.<sup>9</sup> Conversations with campuses indicated that inadvertent deposit of an item already present in an RLF collection represented 3-5% of their allocation but RLF records indicate the duplication rate could be as high as 12%. **The high cost of duplicate checking on campuses as well as the cost of inadvertent duplication was by far the largest pain point identified at the campuses.** Pain points in the duplicate detection workflows include the lack of standardized holding descriptions at the item level for serials and multi-volume monographs, as well as the negative impact of time-lags between initial campus deposit candidate selection and their subsequent shipment to an RLF. As a result, many campuses are actively avoiding depositing serials in their RLF due to the time-intensive, complex nature of confirming duplication.

During our interview sessions with the campus libraries and RLFs, project team members and staff brainstormed a number of potential solutions to the duplicate detection problem. The root cause of the issue appears to be the inability to efficiently and automatically aggregate and analyze data to detect potentially duplicated serial and multi-volume holdings. While a number of short-term solutions were proposed and evaluated, ultimately the project team found that a shared ILS as well as merging bibliographic and holdings metadata as appropriate are the best long-term solutions and will yield improved, more comprehensive results, efficiency, and satisfaction at both the RLFs and the campus libraries.

**Consistent metadata management between the RLFs:** The project team found that differences in metadata management at the RLFs limit campus ability to make use of this data. Additionally campuses vary in their practices around metadata management for deposited collections, resulting in varying levels of support for end-

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<sup>7</sup> Please see Appendix D for narrative summaries of workflows and data flows related to RLF operations for each RLF and depositing UC campus library and Appendix E for workflow comparison charts.

<sup>8</sup> Please see Appendix F for a listing of these opportunity areas.

<sup>9</sup> While SRLF has a formal duplicate detection step included in their deposit intake process that consults both the UCLA's Voyager and UC Berkeley's OskiCat OPAC, NRLF detects duplicate in the course of verifying deposited items in-hand to available bibliographic data or while searching Melvyl as part of troubleshooting a bibliographic record problem.

user discovery (e.g., OPACs and other discovery services) and delivery of RLF holdings. A shared ILS between the RLFs will afford centralized metadata publishing, which may provide campuses with records or API data access from the RLFs that would enable campuses to adopt more consistent metadata practices, with positive impacts on collection analysis, discovery and access, and would better facilitate depositing decision-making and would support campuses in tracking their deposits.

Another important area that would benefit from consistent metadata management between the RLFs is the integration of holdings statements and title histories for serials and multi-volume monographs. **Bringing together holdings data from both RLFs will support much needed data remediation and will provide opportunities to prospectively create consistent, well-formatted holdings statements that could be automatically processed and analyzed to support discovery, duplicate detection and other collection analysis services and collection development decisions.**

**Aligned workflows for RLF deposit processes:** While in general we found that the RLFs employed largely consistent workflows, it was also clear that there are practices and projects at the RLFs that create challenges for their distributed information systems and workflows. Emerging projects that involve shared print storage at either RLF could be better supported by aligned workflows that consistently approach item and metadata tracking and management (e.g., the Journal Archiving Campaign Service which allows UC libraries to deposit at an RLF for which they do not have an allocation).

The project team identified several cases where consistency in RLF programs and services could have beneficial ripple effects in helping the UC libraries work collectively to build collections - for example, providing consistent collection management services as well as supporting how campuses provide discovery of and access to RLF collections locally. Lack of communication strategies amongst and between the RLF and depositors was also noted by multiple interviewees.

The three core opportunity areas of improved duplicate detection for campus libraries, consistent metadata management between the RLFs, and aligned workflows for RLF deposit processes indicated multiple avenues for potential improvement. The project team was sensitive to thinking about a comprehensive solution that could help the RLFs and campuses lower deposit costs, improve the value and use of the collections, and position the RLFs and campus libraries to approach other system wide challenges in the future. **Given these factors, the project team believes that the most impactful change both for the RLFs and campus libraries is the move to a shared ILS between the RLFs.**

## **Recommendations:**

The project team generally found that existing workflows and customer service at the RLFs were meeting current expectations of service at the campuses, but believe that there are untapped opportunities in lowering the cost of deposit and increasing the value and use of our shared collections. The project team believes that the cost of inaction includes less efficient and impactful use of the RLF collections and will pose increasing challenges to UC efforts to build shared collections. Some will be felt immediately, such as depositing serials and getting deposit statistics, while others will become apparent in the coming years, including collection management options as the RLFs completely fill.

The RLF Systems and Workflow Project Team recommends a three part strategy to address the issues noted in the discussion and analysis section of this document. By pursuing these recommendations the project team believes that the RLFs will create immediate, short, and long term efficiencies as well as new opportunities. Additionally, implementing a shared ILS between the two RLFs will advance our understanding of how the UC Libraries could implement a system-wide shared ILS in the future, if we want to pursue that possibility.

**Recommendation 1: Have the RLFs work more proactively with campuses to share information and get feedback on a regular basis.**

The analysis the project team conducted of workflows, processes, and policies surfaced potential benefits from increased communication and more formal outreach and input channels. Four low-barrier solutions include:

- Creating an RLF common knowledge group (CKG) to serve as an informal network for information sharing;
- Refreshing RLF documentation and statistics publishing processes to communicate allocations and other information more frequently;
- Continuing to work with the stakeholders identified through the data gathering process of this project;
- Sharing the findings and workflow documentation gathered by this project team with campus staff in order to encourage best practices.

The project team believes that there are low costs to these activities and many beneficial outcomes from this work. Considering the challenges that campuses highlighted around duplicate checking and metadata sharing the project team believes that more regular communication could help campuses take advantage of services at the RLFs simply by being more informed.

**Recommendation 2: Merge the NRLF and SRLF data into a single system by leveraging an existing platform and ensure attendant policies and workflows are updated and consistent.**

Studying the distilled opportunity areas identified by staff from the RLFs and depositing campus libraries the project team explored potential solutions to the metadata management, duplicate checking, and resource sharing challenges that campuses identified. The project team considered three key unified data and systems options to address these challenges 1) lowering the cost of deposits by moving to pure (non-bibliographic) inventory control, 2) creating a post-deposit 'data warehouse' to facilitate both inventory management and collection analysis, 3) implementing a shared ILS to preserve the current operations of the RLFs while simplifying and streamlining other workflows, including inventory management, bibliographic metadata management, and collection analysis. Of these options the implementation of a unified, shared ILS between the two RLFs appears to bring the greatest benefit for the RLFs and campuses.

In part, the merging of one RLF's data into the other RLF's ILS appears to be the most viable given the lack of resources available to implement a new system separate from those at the UC Berkeley or UCLA. While any technological support for the RLFs must include robust support for inventory management, there are also clear benefits to come from their being able to manage bibliographic description as well. In summary, the project team identified four value propositions in support of a shared ILS solution:

**1. A non-bibliographic inventory control system would hamstring duplicate detection and discovery**

While it would be much cheaper to shift the RLFs to an inventory control system that did not include descriptive metadata, such a system would pose considerable challenges to campuses in terms of duplicate checking and would negatively impact the function of the RLFs as a shared collection. An ILS that is capable of sharing comprehensive RLF metadata back with campuses may address some of the concerns that campuses have voiced with leveraging the RLF collections as they make their own collection management decisions. Data published from an ILS shared between the RLFs creates new opportunities for campuses to use that data in support of both discovery services and collections analysis activities. Additionally, access to bibliographic metadata is critical to the RLFs as their work involves verifying item-record matching, conducting duplicate checks, and (at SRLF) imposing consistency to holdings statements.

**2. A shared ILS addresses the core problems more effectively than a data warehouse alone**

While the project team considered a data warehouse solution that aggregated metadata from multiple ILS systems, it became clear that consistent metadata was as important as a shared system and that achieving consistent metadata in multiple ILS platforms would be difficult. In addition, a shared ILS also poses opportunities for the RLFs to simplify and align their metadata management strategies, such as

making updates, implementing/enforcing data standardization, and tracking item status between the two facilities.

**3. A ILS shared between the RLFs creates opportunities but not requirements for campuses to adjust their systems, data, and workflows**

Moving to a shared, centralized environment would provide significant opportunities for the RLFs to remediate known metadata formatting inconsistencies, both between and within the RLF data sets, allows the RLFs to continue their current workflows, and allows them to manage a unified collection backed by both inventory management data and descriptive bibliographic metadata. With a shared system, the RLFs could begin providing data publishing services for campuses to support discovery (e.g., campuses loading MARC records for RLF holdings into local catalogs), collection analysis (e.g., campuses employing a unified dataset either through APIs or human analysis for collection decisions), and enhanced duplicate detection (e.g., the creation of a new serials-focused duplicate detection dataset or service). Each of these new services would provide opportunities for campuses to benefit from shared RLF metadata management while not requiring changes at the campuses before the value of those changes are demonstrated.

**4. Capitalizing on existing ILS platforms and RLF workflows makes sense**

Although the project team considered the implementation of an entirely new ILS or data management system, the costs associated with changing workflows at both RLFs, the new IT infrastructure and management costs associated with a new system, as well as the downstream impact on input and output systems that would need to be integrated with a new ILS led the project team to conclude that the RLFs should merge on one of the two already implemented ILS systems (e.g., either Millennium/Sierra at UC Berkeley or Voyager at UCLA). After thinking through the process of implementation and use for both systems, the project team believes that the greatest opportunity and lowest cost exists in moving NRLF data into the UCLA system. The subsequent project team should validate this perspective as a first task.

**Recommendation 3: Charge the RLF directors to form a design and implementation team to develop a comprehensive cost and project proposal to merge systems and workflows.**

We recommend the creation of a new working group (RLF ILS Design and Implementation Team) co-led by the RLF directors to conduct a feasibility and implementation design study for a joint system, the outcome of which will be a project plan and cost estimate to merge the RLFs to a single ILS, with the goal of an interim report 6 months after start of work with a final report three to six months later.<sup>10</sup> As the RLFs begin studying the issues and process around moving to a shared ILS, the group should prioritize work early in the process for bringing records together and making a combined dataset available to campuses for them to use in their own data analysis and duplicate detection. The group should also be tasked with assessing approaches to metadata matching and remediation (e.g., is the optimal choreography for improving holdings statements before or once this data is in a shared system?).

**In order to support the work of the proposed design and implementation team, the RLF directors request a commitment from CoUL for staff time dedicated to team/project management and membership, travel costs as appropriate, and access to campus staff for expert consultation as needed. A full outline of staff time and roles are included in the draft charge in Appendix A.**

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<sup>10</sup> Please see Appendix A for a draft charge for the RLFILSDIT.

## **APPENDICES COVER SHEET - RLF Systems and Workflows**

Appendix A: Proposed Charge to RLF ILS Design and Implementation Team

Appendix B: RLF Background, Capacity, and Normalized Workflow

Appendix C: Membership of RLF Systems and Workflow project team

Appendix D: Campus and RLF Deposit Workflow Summaries

D-1: Northern Regional Library Facility

D-2: Southern Regional Library Facility

D-3: UC Berkeley

D-4: UC Davis

D-5: UC Irvine

D-6: UCLA

D-7: UC Riverside

D-8: UC San Diego

D-9: UC San Francisco

D-10: UC Santa Barbara

D-11: UC Santa Cruz

Appendix E: Campus and RLF Workflow Comparison Charts

E-1: RLF Workflow Comparison Chart

E-2: Campus-RLF Workflow Comparison Chart

Appendix F: Opportunity Areas Identified from Campus and RLF Data Gathering

Appendix G: Original Charge of RLF Systems and Workflow Project Team

## Appendix A: Proposed Charge to RLF ILS Design and Implementation Team (RLFILSDIT)

CoUL charges a group to conduct a system design study with the outcome being a comprehensive implementation plan and budget proposal for the integration of bibliographic, item, and holdings data across the two RLFs. Technically, the plan should focus on joint catalog and metadata control in support of enhanced duplicate checking, deposit, and collection analysis services. In brief, the team should:

1. Explore technical, functional, and licensing issues related to the use of the UCLA Voyager system, including but not limited to:
  - a. Licensing and firm costs:
    - i. Explore cost and feasibility of adding NRLF data to Voyager system.
    - ii. Programmatic costs of merging NRLF data into Voyager system.
  - b. Functional requirements:
    - i. Record loading, automation, item location tracking, request system integration, and system responsiveness as well as other functions needed to support shared metadata management across the two RLFs.
  - c. Metadata issues:
    - i. Identify any metadata conflict problems (e.g. duplicated barcodes) that would undermine the use of a shared system.
    - ii. Determine a metadata map from Millennium to Voyager for data elements that are of high priority for RLF functions, confirm viability of their export from Millennium and import to Voyager.
    - iii. Identify approaches for remediating inconsistent holdings statements, merging metadata records, and engaging in quality control and record integration.
    - iv. Determine if/how holdings statements can be computationally remediated prior to integration or if these would be better addressed post-integration.
    - v. Define a RLF metadata standard focused on inventory management (e.g. depositing campus, format, size, access, holdings, and other RLF-related metadata) drawing on previous work<sup>1</sup> as appropriate.
  - d. Resource needs:
    - i. Initial migration, data clean-up, and ongoing system maintenance for all parties (including NRLF staff, UC Berkeley library systems office, SRLF staff, UCLA library systems office).
  - e. Access service functionality:
    - i. Circulation, interlibrary request, and delivery services.
  - f. Derivative data and collection analysis services<sup>2</sup>:
    - i. Seek solutions to a better duplicate checking service.
    - ii. Enable campus-initiated collection analysis work.
    - iii. Consider impact on shared print efforts.
    - iv. Discovery service integration.
2. Review and design workflows to demonstrate efficiency gains between the RLFs and amongst the campuses and the RLFs:
  - a. Identify and rationalize a unified deposit workflow (e.g. materials handling, duplicate checking, metadata creation) to use across the RLFs.
  - b. Recognize other deposit and collection management policies that should be updated or re-defined in order to ensure smooth operations and alert appropriate UCLAS group for review.

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<sup>1</sup> <http://libraries.universityofcalifornia.edu/groups/files/bstf/docs/FinalsansBiblio.pdf>

<sup>2</sup> A key method for improving duplicate detection and enabling more customized collection analysis services is making the improved RLF metadata available for local campus analysis. Such solutions include being able to load RLF records into their local discovery system, publishing data to support local collection analysis solutions that are not possible on the OCLC platform (conversations have been initiated with CDL about supporting such analysis), and publishing data to support integration of selected RLF data into campus discovery services (e.g. UC Berkeley could choose to re-load all UCB deposited materials into their discovery platform).

- c. Determine impact of proposed work flow changes on campus depositor procedures and minimize any negative effects.
3. Create a comprehensive feasibility, cost, and impact study to submit to the SLFB that:
  - a. Identifies real and sunk costs associated with the shift of systems and workflows;
  - b. Identifies potential impacts on campuses and at RLFs;
  - c. Identifies essential goals that must be met for the project to be successful;
  - d. Defines outcomes and a project timeline that realizes these goals.

**Membership:**

**Steering team:** Project sponsor, Project Lead(s), Project Manager

**Project sponsor:** A member of CoUL/SLFB

**Project Lead(s):** Cathy Martyniak, Erik Mitchell

**Project manager:** TBD

**Working teams**

**Deposits workflow team:** NRLF and SRLF deposits workflow representatives

**Systems integration team:** UCLA and UCB IT representatives

**Campus services team:** Representatives from a northern and southern non-RLF campus, representative from CDL;

**Policy and procedures:** RLF directors

**Consultation groups:** Campus depositors and IT staff, RLF staff, ASAG, CoUL, CDL holdings experts

**Resources needed:**

Staff time dedicated to team/project management and membership, travel costs as appropriate, and access to campus staff for expert consultation as needed

**Timeline:**

Check-in reports in 3 and 6 months from beginning of work

Full proposal in 9-12 months from beginning of work



## **Appendix B: RLF Background, Capacity, and Normalized Workflow**

### **Regional Library Facility background:**

Established in the mid-1980's, two Regional Library Facilities (RLFs) store vast quantities of library materials on behalf of the libraries of the University of California. Designed to hold carefully selected materials in high-density, climate-controlled, secure storage, the 13.8 million items currently stored in the RLF collection includes books, journals, maps, microfilms, rare books, manuscripts and other special collections objects and represents 30% of the almost 44 million item collection owned by the University of California. Approximately 150,000 volumes are retrieved from the RLFs and used by UC faculty, students and the general public each year. These facilities are more cost-effective and efficient than on-campus storage and liberate substantial scarce on-campus space for other mission-critical uses. The RLFs provide a shared service to the UC community through lower operations cost for the provision of storage and access services as well as increased value to the collections and to libraries by allowing libraries to repurpose on-campus space as needed. As the RLFs fill their current space however, a discussion needs to occur around how these services and values will be managed going forward.

### **Current RLF capacity and projected need:**

The SRLF and NRLF have capacities of 7 Million and 7.6 Million volumes respectively, for a 14.6 Million total. At last report, SRLF housed 6,545,422 items and NRLF 7,237,694 volumes. At current deposit rates of approximately 300,000 items per year total, the RLFs are projected to fill completely by 2019 with many common size spaces filling sooner.

### **Workflows:**

The NRLF and SRLF roughly follow similar workflows that split deposit work between the RLF and depositing libraries. Broadly, the normalized, end-to-end workflow identified is:

1. Campus selects deposit candidate items per local criteria
2. Campus determines deposit candidate item eligibility (not duplicated at an RLF, good physical condition, and appropriate metadata exists)
3. Campus makes updates to local systems, tracking tools
4. Campus prepares shipment and ships items; communicates /coordinates issues with RLF
5. RLF receives items and determines deposit eligibility: not a duplicate, good physical condition; may reject item at this stage
6. RLF matches the item-in-hand to the matching metadata; may reject item at this stage
7. RLF prepares deposits for shelving (sizing, minor cleaning), or sets aside rejected items
8. RLF returns or disposes of rejected items, as per campus instructions
9. Campuses address rejected items; may make corrections and ship back to RLF
10. Campuses and RLFs support access to deposited items

## **Appendix C: RLF Systems and Workflows Project Team Member List**

Martha Hruska (Campus and SCP Representative)  
*Associate University Librarian - Collection Services*  
*UC San Diego*

Cathy Martyniak (Campus SRLF Representative)  
*Director, SRLF*  
*UCLA*

Erik Mitchell (Project Lead)  
*Associate University Librarian and Director of Digital Initiatives & Collaborative Services*  
*Director, NRLF*  
*UC Berkeley*

Caitlin Nelson (Project Analyst)  
*Discovery and Delivery Services Product Manager*  
*California Digital Library*

MacKenzie Smith (Project Sponsor)  
*University Librarian*  
*UC Davis*

Kathryn Stine (Project Manager)  
*Metadata Product Manager*  
*California Digital Library*

Tin Tran (SRLF Representative)  
*Processing Manager, SRLF*  
*UCLA*

The team acknowledges early contributions from:

Gary Thompson (UCLA Representative)  
*Head of Software Development and Project Management*  
*UCLA*

Todd Grappone (UCLA Representative)  
*AUL for Digital Initiatives and Information Technology*  
*UCLA*

## Appendix D-1: Northern Regional Library Facility Deposit Workflow Summary

### Main Pain Points

- Searching serials, analytics, and bound-withs is challenging for finding dupes, matching incoming items, and fulfilling requests.
- The NRLF barcode is an essential piece of data that is often not included in access requests - only requests coming directly from UCB patrons carry that data; all other ILL / DDS requests have to be matched manually, which is highly time-consuming.
- Lag time between changes made to the location in a campus holdings record and the actual intake of an item at NRLF may result in misdirected access requests, thus consuming staff time in detective work.

### Main Effective Points

- Relations with campus liaisons are smooth and efficient, even during staff turnover.
- Incoming shipments from campuses are generally very well prepared.
- One campus provides an Excel sheet in electronic form with their shipment (including OCLC numbers and other bibliographic data for each item) which supports NRLF staff in quickly and accurately identifying metadata matches.

### Suggestions for Improvement

- It would be ideal to have a process that would download/ingest the bib records for incoming items from the non-UCB owning campus' local database into Millennium.
- It could ultimately be easier for users to access a centralized discovery and delivery system.

As of June 2015, 6,545,558 items (7,183,694 volume equivalents) are stored at the Northern Regional Library Facility (NRLF), which has a potential total capacity of 7,786,000 volume equivalents (VE) given the current space (Phases 1-3). The facility is operated by the UC Berkeley Library and, as such, shares UC Berkeley's Millennium ILS; OskiCat is the OPAC. NRLF accessions library items from the UC system, typically from UC Berkeley (2015-16 allocation of 80,986 VE), UC Davis (2015-16 allocation of 14,592 VE), UC San Francisco (2015-16 allocation of 2,432 VE), and UC Santa Cruz (2015 allocation of 9,728 VE). UC Merced does not currently make deposits and does not anticipate having an RLF allocation.

NRLF expects that deposits are sorted first by material type (e.g., books, serials, maps, microform) and then by size to help streamline NRLF staff processing. NRLF processing staff assume that the depositing campus has conducted a sufficient search for duplicate volumes across the current holdings of both RLFs, per the non-duplication policy. As such, NRLF staff do not routinely confirm whether incoming deposit candidates are duplicated at one of the RLFs. Rather, duplicates may be identified in two ways: (a) when staff verify deposit items in-hand against available bibliographic metadata that will be used in their ILS (the UC Berkeley Millennium system); or (b) while searching WorldCat Local (Melvyl) as part of troubleshooting a bibliographic record problem.

Each item sent to NRLF as a candidate for deposit must have an OCLC number in its local bibliographic record, and this OCLC number, along with other bibliographic data, must accompany items in the shipment. UC Davis and UC San Francisco satisfy this expectation by including a printout of corresponding bibliographic records in each single-volume monograph and attached to the first volume of a multi-volume set or serial, while UC Santa Cruz sends NRLF a spreadsheet including the OCLC number and other identifying data for each item, sorted in the order in which items are loaded onto shipped carts.

At point of accessioning, NRLF staff ensure an accurate relationship between deposited items in-hand and the corresponding bibliographic metadata used to identify those items in their ILS. A routine step in NRLF deposit item processing involves searching Millennium for a potential bibliographic record match based on barcode, OCLC record number, title and/or call number. If this initial match point is made, the item is then confirmed to be a match for the record based on additional data points and then the item and holdings (for serials and multi-volume monographs) record updated in Millennium to reflect that the item is now at NRLF. If no matching bibliographic record is found in Millennium, NRLF staff will search OCLC Connexion for a match and then, after confirming that a record matches the item in-hand, will download the record for inclusion in Millennium, and create the item and holdings records to reflect that the item is now at NRLF. Entering data from the owning campus' record printouts into either Millennium or OCLC Connexion manually is not ideal and takes time, and variations in local cataloging practices can prove time-consuming in identifying record matches. Searching for serials (and particularly analyzed serials) can be especially challenging.

When NRLF staff encounter bibliographic data errors that uncover a mismatch between the item in-hand and the metadata, they will communicate these to the owning campus for resolution. In some cases the mismatches require cataloger judgment, and the item may be returned to the owning campus for review before being re-sent for NRLF deposit. If minor corrections are needed, these may be made by NRLF staff and shared (typically by email) with the owning campus so that they can adjust their local record accordingly.

Once items have been deposited at NRLF, those with a circulating status fall under the persistence policy. They can only be returned to the owning campus by "recalling" them to the local collections for an 'indefinite' period of time, and must eventually be returned to NRLF. Material designated as special collection is exempt from the persistence policy.

All items deposited at NRLF can be lent to patrons via either direct circulation (to UC Berkeley patrons) or ILL (all other UC campuses and others). Patrons searching in OskiCat will find NRLF items, where NRLF is indicated as the location for specific items, and holdings data is updated to reflect which specific items reside at NRLF. Patrons searching in WorldCat or Melvyl (WorldCat Local) will also find NRLF items (where the NRLF holdings symbol has been set on bibliographic records), however neither of these catalog displays specific item holdings for serials or multi-volume monographs. Owing UC campuses are responsible for setting location codes in their local systems, indicating when items are deposited to NRLF and practices vary regarding whether and how items are included in local campus systems if they have been withdrawn "in lieu of" deposit to NRLF or deposited to NRLF by another campus. NRLF access services staff has noted that occasional complications arise when owning campuses have updated their location codes for deposited items to indicate that the title is at NRLF when material hasn't been shipped yet, resulting in misdirected patron requests.

## Appendix D-2: Southern Regional Library Facility Deposit Workflow Summary

### Main Pain Points

- Differences in campus cataloging practices, especially with serials, make searching and record-matching challenging and time-consuming.
- Turnover of campus staff responsible for SRLF deposit work, and associated learning curves for new staff, can affect quantity and quality of materials being deposited to SRLF.
- An SRLF barcode is automatically inserted into the Voyager call number field to aid ILL work. Still, barcode issues affect access services for requests coming in from non-UC sources, making matching records challenging.

### Main Effective Points

- SRLF staff with programming expertise apply skill and knowledge to Voyager for batch edits and quality reviews via database queries.
- Processes have been in place for a long time, and refined to the point where things run very smoothly.
- Having their own driver for pickup / dropoff allows for control over the deposit shipment process.

### Suggestions for Improvement

- SRLF staff are very familiar with detecting items duplicated between campus and RLF holdings so it may be most efficient to capitalize on their expertise for this work.
- Relinking UCLA barcodes to SRLF holdings for UCLA deposits is time-consuming - these are currently handled one at a time - so this step could be better addressed.

As of June 2015, 6,545,398 items are stored at the Southern Regional Library Facility (SRLF), which has a potential total capacity of 7 million volume equivalents (VE). The facility is operated by the UCLA Library and, as such, shares UCLA's Voyager ILS. SRLF accessions library items from the UC system, typically from UCLA (2015-16 allocation of 66,150), UC San Diego (2015-16 allocation of 7,782 items), UC Santa Barbara (2015-16 allocation of 7,782 items), UC Irvine (2015-16 allocation of 7,782 items), and UC Riverside (2015-16 allocation of 7,782 items).

Campuses are expected to separate monograph and serial deposits on different book carts. Student staff will size, sort, and physically review items for "shelf-worthiness" (clean, undamaged) as items are built into the processing queue. Processing staff then conduct online searches to find records for deposit candidates (first in UCLA's Voyager, then in depositing campus' online catalog if necessary). In support of duplicate detection, staff also check UC Berkeley OskiCat catalog for duplicate holdings at NRLF. Processing staff can successfully complete all processing steps at 15-17 items/hour. Staff also randomly review each other's work (256 items per month) for quality control.

Each item deposited at SRLF must have a property stamp. Non-Roman items, such as CJK or Persian titles, must have accompanying bibliographic record printouts since SRLF staff lack language and transliterating expertise. SRLF staff have not found OCLC numbers to be completely reliable in confirming item to online record matching or determining duplication. Additionally, many records lack OCLC numbers. Although most deposits from non-UCLA campuses can be matched to a record in Voyager, some need to have bibliographic records imported into Voyager via Z39.50. Imported records need to be stripped of local information in compliance with UCLA cataloging standards. Items that cannot be confidently matched to online records are returned to depositing campus for cataloging review and update. Rejected items typically fall into two categories: lacks online record and duplicates. These are returned to depositors, accompanied by a standardized form detailing reason(s) for rejection.

UCLA barcodes are re-linked to SRLF holdings to preserve UCLA's circulation history. SRLF staff also add value to UCLA metadata in Voyager by maintaining UCLA serial holdings data and LHRs. This work includes editing UCLA holdings records to reflect deposit decision and withdrawal. SRLF worked with UCLA to develop and implement standard formats for holdings statements and item enumeration patterns, which are routinely and retroactively imposed on newly deposited serial volumes as well as non-standardized legacy/migrated records. UCLA library staff are responsible for adding SRLF holdings information to Melvyl, which happens in batch on a weekly basis. UCLA library staff are also responsible for making changes to bibliographic records when significant updates are needed (e.g., title changes for serials). Owing to both the flexibility of Voyager and staff programming expertise both at SRLF and UCLA, SRLF staff benefit from automated batch record editing, report generation, and routine queries to uncover metadata errors.

## Appendix D-3: University of California, Berkeley Deposit Workflow Summary

### Main Pain Points

- The RLF Tool does not provide accurate information for multi-volume monographs (MVMs) or serials.
- Performing a shelf audit for MVMs is a painful but necessary quality control step.
- Establishing standard criteria for selection, and the review of deposit candidates can be complex and take a long time, especially with so many libraries.

### Main Effective Points

- Filing a ticket with LSO to create the initial list of eligible deposit candidates has improved efficiency.
- Staff are proud of the effective manner in which Doe Moffitt Circulation handles the packing and shipment of materials to NRLF.

### Suggestions for Improvement

- Serials and multi-volume run consolidation: proactively creating complete and verified sets.
- An improved duplicate detection tool that can report on MVMs and serials at the volume level.

UC Berkeley has a collection of approximately 11 million items and an FY 15-16 NRLF allocation of 80,986 volume equivalent (75% of NRLF / 38.5% of statewide allocation). They typically exceed their allocation, purchasing up to 25% more VE per year. They send their materials in weekly batches (6-10 trucks) for specialty libraries and daily (2-3 trucks) for the main library. UCB has a single NRLF Deposit Coordinator who sets the yearly delivery schedule and coordinates with the campus libraries on selection, preparation, and shipment of materials. Overall UCB has approximately 76 (43 Librarians; 33 other career staff) staff and ~50 students who engage in deposit activities throughout the year.

The UCB deposit process begins when selectors create a list of criteria (different for each library, but typically based on item type - monograph, serial, microfilm, etc. - and circulation rates - e.g. no circulation in last 8 years) that will be used to determine what might be eligible for storage. This list is filed as a ticket with the Library Systems Office (LSO), who perform a query in OskiCat (Millennium) and return a list of eligible items for deposit. This list is run through the RLF Tool, and each item is marked as duplicate or not. The final Excel list is given back to the selectors who review the list and use the final list as a pull sheet for (student) staff to grab the materials. Occasionally, subject libraries will perform their own queries for eligible items and do their own de-duping, but mostly these requests go through the LSO.

UCB reports that in recent years they rarely send serials to NRLF, although they could reclaim more shelf space by doing so. The difficulty of the de-duping process is a barrier. Additionally, staff and faculty would prefer not to split serial runs - desire for direct access to a full set on campus, as well as concerns about difficulty of discovery of materials held at SRLF are motivating factors in this decision. As far as withdrawals, uncertainty about the quality and completeness of the "preservation copies" held at the RLFs as well as a desire for the continuing integrity of the collection (at the potential cost of shelf space) means that typically duplicates are kept on campus instead of being withdrawn. Records for items that are withdrawn are kept and suppressed. Berkeley, as a "home campus" for the NRLF, reports no particular problems with discovery or access to materials at NRLF; rather, UCB staff report satisfaction at the current paging process.

The UCB packing and shipment process is straight-forward, and consistent with standard NRLF procedure. Rejected materials consist mostly of duplicates and items with record problems, very rarely condition problems. The estimated rejection rate is 5% and is low impact to UCB staff.

## Appendix D-4: University of California, Davis Deposit Workflow Summary

### Main Pain Points

- The number of bibliographic databases required to search to get an accurate account of RLF and campus holdings (particularly at the item level) is problematic and time-consuming.
- It is often problematic to decipher holdings due to record differences and/or insufficient holdings/items information.

### Main Effective Points

- The high degree of accuracy in UCD duplication checking is a point of pride.
- Good working relationships/communication with NRLF staff.

### Suggestions for Improvement

- Improved / timelier statistics from NRLF would help UCD with tracking deposits and allocation remainder, especially in the area of Special Collections (manuscripts, archives) and microcopy where we approximate volume equivalency.
- UCD is proud of the quality of their bibliographic metadata and often wishes that the “canonical” catalog records used in the NRLF system for their items come from their catalog (via OCLC), unless of better or equal quality.

UC Davis has a collection of approximately 3.9 million items and a FY 15-16 NRLF allocation of 14,592 volume equivalent (VE) (13.5% of NRLF / 7% of statewide allocation). They typically send their full allocation in batches of 2-3 trucks of regular materials, 2 trucks of special collections material, and 2 pallets of special collections materials roughly every month. UCD has been undergoing a reorganization including the creation of the Collection Strategies Department, a group now responsible for developing the collections, dividing up the NRLF allocation, and coming up with selection policies for subject specialists. As a result of new procedures, UCD reports they are somewhat behind in filling their 2015-16 allocation, but expect to come up to speed shortly. UCD has 3 FTE staff and 2 student dedicated to RLF processing.

The UCD deposit process begins when selectors send the RLF deposit staff an Excel sheet of deposit candidates, pulled from Harvest (Aleph ILS) data. The criteria for selection vary, and can depend on project work and space needs in any given year. Special collections make up approximately 54% of the allocation. Duplicate items are withdrawn in lieu of deposit (WILO), withdrawn, or retained depending on the subject and selector. UCD reports a 64% duplicate rate between their holdings and those of the RLFs - up from 20% ten years ago - and therefore that they need to process significantly more candidates for deposit in order to meet their allocation.

UCD is unique in that they have a custom SQL database that is separate from their ILS database which stores information about collection decisions: transfers between libraries, NRLF deposits, withdrawals. The NRLF deposit process status of candidate items is tracked in this database. Once the candidate list is sent from the selector the list is batch uploaded to the database and duplicate checking begins. The duplicate check process at UCD is extensive, and performed only once: The item is checked sequentially in Harvest, then Melvyl, UCB's Oskicat (Millennium), UCLA's Voyager, and the SRLF Viewer tool (<http://www.srlf.ucla.edu/Deposit/SOUV/SOUVinfo.aspx>). If the item is a duplicate it is tagged for withdrawal; if it is not found, staff keep checking the item in all systems and it is finally considered a deposit candidate. UCD rarely uses the RLF Tool for duplicate checking, instead using a custom macro for Aleph which checks the OCLC number in OCLC for NRLF and SRLF monograph holdings. However, as UCD is planning an ILS migration to Alma, workflows utilizing the RLF and macro tools are being reassessed. UCD reports that duplicate checking is the most complicated part of their workflow, but that they are satisfied with the results. UCD prefer to send serials when possible and will split a set to fill gaps at the RLFs. UCD checks for duplicates fairly close to their shipment and is rarely subject to the “scooping” effect.

While UCD staff continually update the SQL tracking database, the ILS item and holdings records get updated only once to show the NRLF location. NRLF item records are suppressed in the local catalog; item records for volumes that are WILO or withdrawn item records are removed and holdings are deleted. A link is added to the holdings record with a link to an informational page describing how to request from NRLF, ultimately taking the patron to a UC-eLinks request page.

UCD's shipment process is straight-forward and they report no particular problems in this area. Items are pulled, visually inspected, and placed on trucks by size. UCD attaches a paper copy of the bibliographic (and holdings if a serial or MV set) record with each item. UCD's rejection rate (less than 1%) has a very low impact on staff. Returned materials are mostly paper forms (not the physical item) reporting a correction made to the bib record.



## Appendix D-5: University of California, Irvine Deposit Workflow Summary

### Main Pain Points

- Selection workflows are time-consuming.

### Main Effective Points

- Automated batch processing of selected categories of deposit candidates.

### Suggestions for Improvement

- Improve RLF Tool's duplicate detection for serials and multi-parts.
- Combine RLF holdings into one catalog.
- Update the SRLF documentation.
- Notification to campus of any items in a "backlog" at SRLF
- Eliminate or reduce areas of confusion for our users in discovery / access (e.g. both UCI and RLF symbols are set on deposits in MELVYL).

UC Irvine has a collection of approximately 2.4 million tangible items and a FY 15-16 SRLF allocation of 7,782 volume equivalent (VE) (7.6% of SRLF / 3.7% of statewide allocation). They send their full allocation of materials in batches of 20 trucks every 1 to 2 months. There are approximately 13 librarians who participate in selection. Approximately 2 staff FTE are currently dedicated to RLF selection and processing with occasional help from student staff.

The Irvine SRLF deposit process begins with the selection of candidate materials by running reports from their ILS, Millennium, and exporting them into an Excel spreadsheet for analysis by material type under the direction of subject librarians. Usual criteria for single volume monographic material include ownership for 8-10 years and low circulation. Multi-volume sets have similar selection criteria. Analytics are currently selected by series title and require the most intensive analysis by librarians. For multi-volume sets, some analytics and serials, coverage of electronic holdings compared to print holdings factor into selection. Fewer librarians than needed feel able to engage in the process. Also, with new or interim assignments given to less experienced librarians, deselection decisions may not reflect faculty perspectives or anticipate UCI's academic trajectory. Faculty are generally not involved in the initial selection phase.

After analysis, a spreadsheet of the librarian-selected candidates is processed for duplicate detection by cataloging staff. Single volume monographs are passed in batch through the RLF Tool for duplicate detection. Duplicate detection of multi-parts, serials, and analyzed serials is more time-consuming: a first pass can be made in the RLF Tool, but thereafter the process includes manual lookups in MELVYL, then the UCB or UCLA catalog as needed. Staff may call or email SRLF in rare cases. Use of the RLF tool for single volume monograph de-duplication has eliminated most of the manual searching for deposit eligibility. Once selected and de-duplicated, new Excel spreadsheets are created via Millennium of SRLF (or withdrawal) candidates for Access Services to pull. Note, because of a time lag between selector analysis and deposit, if an item has been on the candidate list for 3-6 months, a second duplicate check against the RLF Tool is performed to reduce the rejection rate.

Two cataloging staff members process the materials for deposit or withdrawal: one does batch records work and the other does individual records work for problem monographic items and for serials, multi-parts and analytics. Holdings records for materials deposited in an RLF are marked with location code SRLF; records for materials withdrawn in lieu of deposit are deleted.

Shipment of the books to SRLF is straight-forward and according to standard SRLF procedures. Returned material is shipped back to Irvine as new deposits are picked up. Some returns need local record corrections before re-sending to SRLF; some are undetected duplicates that are subsequently withdrawn. The overall rejection rate is low and UCI staff felt that rejections and revisions have little impact on their workload.

## Appendix D-6: University of California, Los Angeles Deposit Workflow Summary

### Main Pain Points

- Additional duplicate checking against NRLF holdings.

### Main Effective Points

- Sharing an ILS with SRLF means that duplicate checking and cataloging processes can be shared as well. Also, if SRLF had a different ILS many current uses of the “Request” function would turn into regular ILL transactions.

### Suggestions for Improvement

- Easier visibility of NRLF’s holdings and documentation of practices; in particular it would be much easier if the data were in one system and could be checked once.
- Normalization of data practices across the RLFs to improve accuracy.
- Use of a user-centered access tool that makes life easier for those accessing these materials.

UC Los Angeles has a collection of approximately 10,207,432 items and a FY 15-16 SRLF allocation of 66,150 volume equivalent (VE) (64.7% of SRLF / 31.5% of statewide allocation). They typically send their full allocation of materials in regular batches on a daily basis, via a published standing book-truck pickup schedule. Deposit preparation is decentralized, using guidelines available on SRLF’s website. While SRLF plays a key coordinating role, there is no one “SRLF coordinator” for the campus: individual libraries and collections prepare their deposits independently. Throughout the 8 libraries who primarily deposit to the SRLF and including the staff for Print Acquisitions and Cataloging & Metadata, the following spend a portion of their time working on SRLF depositing processes for UCLA: 12 librarians, 16 full-time staff, and 62 student employees.

The UCLA deposit process begins when selectors throughout campus prepare lists of deposit candidates for SRLF. The involvement of the selectors varies from unit to unit; in some libraries they can go through the stacks and hand select, in other libraries they rely more on statistics. Generally older materials will be candidates, and areas where space is needed (or blocks of space can be found) will be targeted. About 30% of newly-received materials are nominally processed for the collection they were acquired for but sent directly to SRLF. As UCLA and SRLF use the same Voyager ILS system, duplicate detection for SRLF can be done via internal ILS reports; duplicate detection for NRLF is done via the RLF Tool, or via manual searches in Melvyl or UCB’s Oskicat (Millennium). Duplicate detection is done once, and materials that end up being duplicates by the time they reach SRLF are returned (though this is a low impact number for UCLA staff).

Following deposit at SRLF, SRLF staff change the holdings records to indicate the material’s location there, treating the SRLF as a de facto branch location in the OPAC. Records for items that are withdrawn, or withdrawn in lieu of (WILO) are removed (monographs) or suppressed (serials).

UCLA reports success in educating their patrons and faculty about the permanence and availability of items in the RLF, thus reducing anxiety about “removing” items from the collection. They report similar success in at-the-desk efforts to educate and help patrons make an ILL request to access needed items.

## Appendix D-7: University of California, Riverside Deposit Workflow Summary

### Main Pain Points

- Local selection process can take a long time.
- Because we do not have a link to Request in their local catalog, it's challenging for patrons to ILL RLF items.

### Main Effective Points

- JSTOR processing is easier because we can work from a list of pre-selected items.
- Delivering deposited items to our patrons works well.

### Suggestions for Improvement

- The RLFs could provide a wishlist of what they need, perhaps for completing serial runs.
- Combine the RLF catalogs so there is one place to find definitive data about holdings.
- Provide options for campuses to "queue" or "claim" their anticipated deposits so that these are factored into duplicate detection.

UC Riverside has a collection of approximately 4 million items and a FY 15-16 SRLF allocation of 7,782 volume equivalent (VE) (7.6% of SRLF / 3.7% of statewide allocation). They typically do not send their full allocation each year, and send shipments in batches of 10-12 book trucks about 3 times a year. UCR has approximately 1 staff FTE and a number of students dedicated to SRLF deposit work.

Collection development staff at UCR initiate selection of SRLF deposit candidates by choosing items that have not circulated in more than 15 years; deposit candidates are additionally selected by call number range. Data about these items is exported to an Excel list and reviewed by subject specialists with a goal of including faculty input where possible. The selection process for a given item can sometimes take months from the point it is identified by call number and circulation status to its ultimate disposition, either to be deposited at SRLF or to be withdrawn. In the past, there have been manual selection processes (at the shelf) that have been very time consuming, so moving to providing an Excel list as an initial review point seems to be of real benefit.

Duplicate detection is done by student staff searching first in RLF Tool (to identify if monographs are held by one of the RLFs) and then, if needed, verify them within the Melvyl, the UCLA Voyager, and UC Berkeley Millennium catalogs respectively. These student staff can perform duplicate detection at a rate of about 25 books in an hour. UCR staff have found that following duplicate detection, typically only about 15% of their deposit candidates are unique to one or the other RLF. At the duplicate detection step, the item in hand is also verified to be accurately described by the bibliographic record in their system.

After duplicate checking materials go to technical services staff, who verify the physical condition, confirm the title and call number match the item, update the location code in their Millennium record, and change or create an item record (if none exists). UCR uses macros to make batch changes to catalog records. Location codes serve as their means of tracking what has been or is about to be sent to SRLF.

UCR indicates that their rejection rate now is very low - about 20-25 items returned per shipment, and these are often due to bibliographic data errors (such as a record indicating the wrong edition for a given work). Other more minor bibliographic errors are communicated back to UCR by SRLF staff if they have been corrected at SRLF but did not require the item to go back to the campus for review. Duplicates detected at SRLF are not reported back to UCR and records for those items in their local catalogs may need to be updated to reflect this status.

## Appendix D-8: University of California, San Diego Deposit Workflow Summary

### Main Pain Points

- Items rejected by SRLF have already been subject to time-intensive work, so UCSD works to avoid these.
- The RLF Tool is inadequate for confirming serial and mono set volume duplication and checking in both the UCLA and UCB catalogs takes a lot of time.

### Main Effective Points

- Using the RLF Tool to batch detect duplicates for single monographic volumes.
- Work and communication with SRLF staff is very effective.
- Items received from SRLF ILL generally have a quick turnaround.

### Suggestions for Improvement

- Avoid redundant work of duplicate checking both at the campus and at SRLF.
- Establish a unified system for the RLFs with consolidated holdings.
- Convert all brief records to full OCLC records; use successive entry cataloging when possible for serials.
- Larger/fairer allocations for the non-UCB/UCLA campuses; separate allocations for regular deposits vs. shared print deposits.

UC San Diego has a collection of approximately 3.2 million items and a FY 15-16 SRLF allocation of 7,782 volume equivalent (VE) (7.6% of SRLF / 3.7% of statewide allocation). They typically need to exceed their allocation and have paid on a per-item basis to do so in years past. UCSD sent just two shipments to SRLF last year before hitting their allocation, though they would ideally send shipments on a more regular basis. UCSD has approximately 6 staff who do SRLF deposit work (although not exclusively so): about 1 FTE and 2 students total.

Selection of RLF deposit candidates is typically project-based. Collection management staff historically have made weeding decisions using the following parameters: 1) monographs that have not circulated for the past ten years and were published ten years prior to the weeding date; and 2) serials available via perpetual access to an electronic version.

UCSD staff consult the RLF Tool for monograph duplicate detection and send more single-volume monographs than serials, due to relative difficulties with serial duplicate detection. For serial duplicate detection, staff first consult the UCLA Voyager and then the UCB Millennium catalog; Melvyl is not searched due to its lack of detailed volume descriptions for RLF holdings. While serial deposits offer the best opportunity for shelf-clearing, staff note that checking for serial holdings scattered across the RLFs (using their respective catalogs) is tedious. Duplicate checking is done once, and fast batch checking has allowed for more efficiency in staff doing this task.

In general, records for duplicate items (e.g., those that can be withdrawn in lieu of (WILO) deposit) are tagged for deletion in the UCSD ILS (Millennium), suppressed for a short time to undergo QA, and then are batch purged. Records for items UCSD does send to SRLF are retained in its catalog and are viewable to the public, with SRLF as the physical location. Staff noted that while keeping such records in its catalog made sense in the past, this might be something they want to rethink given the increased focus on shared access UC-wide, varied/improved discovery methods, and confusion over having only a fraction of the SRLF corpus in its catalog. While happy with the speed of turnaround for ILL items, UCSD staff report repeated problems with incorrect items being sent, the root cause of which is under consideration/investigation.

The main reason for rejection is duplication, in some cases due to non-matching OCLC numbers. UCSD sees about a 6% rejection rate due to items duplicated at SRLF. They do have items rejected for other reasons, but do not track those as the rate is very low. They consider this rejection rate for single monographs to be acceptable given the time that they save using the batch RLF Tool.

## Appendix D-9: University of California, San Francisco Deposit Workflow Summary

### Main Pain Points:

- Access to items (discoverability). NRLF holdings are kept in the UCSF catalog, but many patrons don't know that NRLF is in Richmond. Items that are withdrawn are suppressed and are invisible in the catalog; likewise items held at SRLF (for example volumes in a serial set) would be accessible only through Melvyl.
- Rejections have to be reprocessed, which can be time-consuming.

### Main Effective Points:

- The QA provided by NRLF is excellent. UCSF has high confidence that if there's any issue with a shipment it will be caught for correction.

### Suggestions for Improvement:

- Improved processes for confirming and tracking items that are deposited (statistics, etc.).
- More communication on RLF policies and practices, tip and tricks, etc.
- If campus staff had access to the RLF database then they could "tag" and claim items that they plan to deposit. This would minimize the potential for rejected materials if another library deposited the items first.

UC San Francisco has a collection of approximately 705,000 items and a FY 15-16 NRLF allocation of 2,432 volume equivalent (VE) (2.25% of NRLF / 1% of statewide allocation). They send their full allocation of materials in shipments 4 times a year. They typically send around 12 trucks of materials, and are highly prioritizing their special collections materials unless a particular project or need for shelf space arises. For regular materials, UCSF primarily sends serials (this is also the majority of their collection). UCSF generally has a single person dedicated to doing the entirety of the deposit work: from pulling items from the shelves and packing the trucks. Occasionally second staff members help out. Following some staff changes, UCSF is currently reevaluating current deposit processes.

UCSF starts the deposit process by selecting candidates for deposit; they primarily target journals, and check first for online access / perpetual access, then target older journals (published before a certain year). Books in the regular collection published before 1920 and all of UCSF's printed theses and dissertations are housed at NRLF (electronic replaced most print in 2006). UCSF uses the RLF Tool occasionally, but primarily searches Melvyl for serial holdings. Staff reported surprise that duplicate checking is often considered a problem at other campuses, and in fact was the only campus to report serial duplicate checking as a low impact process. An Excel spreadsheet is created with a list of all the candidates, where staff track duplicate status, notes, and shipment date; this data is used throughout the year to coordinate deposits. The duplicate check is typically done once, although shipments that occur long after the initial check do sometimes get an additional check. Typically UCSF will keep items which are marked as duplicate, rather than withdrawing them. Once an item is marked for deposit, its catalog record location code is changed to 'NRLFx' "In Transit to NRLF"; this code is changed once the items are shipped to 'NRLF' "Northern Regional Library Facility". When UCSF withdraws an item, they keep the catalog record, but suppress it and remove holdings from OCLC.

The UCSF shipment process is straight-forward and they report no particular problems in this area: the bib record is printed and attached to the item (one per monograph; one per serial run), with the OCLC number. Items are packed according to size and fairly tightly on the truck. Before shipment, staff email NRLF to confirm the number of trucks and rough VE, which is useful in tracking and verification of deposit rates later.

UCSF reports a rough rejection rate of 5% or less, and indicates that rejections are very low impact.

## Appendix D-10: University of California, Santa Barbara Deposit Workflow Summary

### Main Pain Points

- Staff would like to increase the annual SRLF quota due to local space concerns.
- RLF Tool only works well for single volume monographs, so duplicate detection for serials and multi-volume monographs need to be addressed manually and it takes a long time. We have discontinued sending serials the past years due to the amount of effort and time it takes.

### Suggestions for Improvement

- Strive for automation - a fully automated duplicate holding detection system would offer much benefit.
- Eliminate duplicative work between SRLF's processing workflow and UCSB's processing workflow.
- Provide opportunities for interoperability. For example, allow API access to RLF item data to support local decision making.

UC Santa Barbara has a collection of approximately 4 million items and a FY 15-16 SRLF allocation of 7,782 volume equivalent (VE) (7.6% of SRLF / 3.7% of statewide allocation). They typically send their full allocation of materials and have inquired about increasing their allocation. UCSB sends shipments in batches of 20 trucks, of which 10 trucks are special collections materials. UCSB has approximately 3 staff members involved with RLF processing.

Initial RLF deposit candidate selection at UCSB starts typically with a first cut by the AUL for Collection Services that is then reviewed by collection managers. Items that have not circulated (or that have circulated very little) since UCSB migrated to Aleph (in 2001) are targeted for SRLF deposit. For monographs, OCLC numbers are extracted from the deposit candidate reports and run through the RLF Tool; serials are run through a more manual checking process, which is intensely time-consuming, and UCSB reports they send far more monographs than serials accordingly. UCSB also checks the UCLA Voyager catalog and uses the SRLF Viewer tool. Selector decisions can take some time, with a lag of 3-6 months between initial data export for the candidate report and duplicate detection through to sending the deposit. This lag has resulted in staff routinely conducting an additional duplicate detection step just prior to shipment. Staff estimate that it can cost \$.40-.60 per item for student staff to do a manual duplicate check. UCSB staff are strongly in favor of any deposit workflow solutions that would automate the work.

Once items are determined to be destined for SRLF, the local ILS records are updated to reflect a change in status (indicating that the volume is not in the building) and collection (which becomes "SRLF"). Duplicates or items withdrawn in lieu of (WILO) are physically withdrawn, though the catalog records are maintained and marked with a new location code in their local system records, "XRLF". This is primarily to maintain access to these materials in the local catalog, as there is campus sentiment that materials sent to the RLFs are still a part of the UCSB collections, that SRLF is an "extension" of the UCSB campus, and in particular there may be some faculty discomfort with materials seen to be leaving the campus.

Preparation and shipment of materials is non-problematic and according to standard SRLF procedures.

UCSB has a rejection rate of about 10% - these materials are typically duplicates but can include some rejections due to discrepancies in bibliographic records.

## Appendix D-11: University of California, Santa Cruz Deposit Workflow Summary

### Main Pain Points

- The RLF Tool can only be used to search single volume monographs, and even then there seem to occasionally be errors in detection.
- Access to items at the NRLF is often confusing for patrons and can cause extra work at the reference desk and in ILL processing making sure requests are routed to the correct place.

### Main Effective Points

- UCSC has done a lot of work streamlining the deposit process and feels confident in the efficiency of the workflow.

### Suggestions for Improvement

- Improvement to the RLF Tool so that it can accurately search other formats.
- Clarity in discovery could be improved so that patrons can see exactly where items are; finding records for NRLF and SRLF in Melvyl, versus records in the local ILS is often confusing for patrons.

UC Santa Cruz has a collection of approximately 1,579,073 items and a FY 15-16 NRLF allocation of 9,728 volume equivalent (9% of NRLF / 4.6% of statewide allocation). They typically send their full allocation of materials in batches of 4-6 trucks of regular materials roughly every month. Special Collections will not be sending any material in fiscal year 15-16; the amount UCSC will send in 16-17 is still to be determined. UCSC has approximately 2 students and 1 FTE staff dedicated to RLF processing.

The Santa Cruz RLF process starts with the selection of candidate materials, which is done by working with the head of Research Support Services and subject selectors to create Excel lists of candidate items - mostly single volume monographs. The criteria for selection vary, and can depend on project work and space needs in any given year. Special collections makes up approximately 1% or less of the allocation.

UCSC keeps track of their duplicate checks in a separate Excel spreadsheet, in batches. Because UCSC is sending mostly single volume monographs, they rely heavily on batch duplicate checking through the RLF Tool. The candidate list is checked for duplicates in the tool, and any duplicates are either marked for immediate or future withdrawal. Those that aren't shown to be duplicates go to a list for further detection: UCSC checks Melvyl for multi-volume monographs, and sometimes checks UCB's Oskicat as well. Duplicate checking in the RLF tool may be done once more if the candidate list is old enough. The final list of candidates in a batch is sent to students to be pulled from the shelves.

Once the items are pulled from the shelves, they are visually inspected, cleaned, and prepared by size on trucks. Each item's barcode is scanned into a "CruzCat file" (a unique list in the UCSC Millennium ILS) in the order it sits on the truck - this list is both exported as an Excel file and used electronic shipping manifest which gets sent to NRLF, and is used as a batch file that can be tagged and used to update records in the ILS. UCSC's practice of supplying only the electronic list of ordered item data and not including physical printouts in the deposited items is unique among the other northern campuses. The items are duplicate-checked once again before shipment to NRLF. In the case that items are in processing for longer than one month, the holdings location is updated to reflect that the item is "in transit to NRLF." Once the items are shipped the location is updated to "NRLF." UCSC has added a link to Request to all records with NRLF holdings, so that a patron may use Request to have the item delivered via ILL. Records for items that have been withdrawn or withdrawn in lieu of (WILO) are deleted from the local ILS.

Returned material is shipped back to Santa Cruz monthly. Most returns are items in need of local record corrections; some few are duplicates that weren't detected by the RLF Tool. The overall rejection rate for 2015-2016 is so far less than 3%, and UCSC staff felt that rejections had a low impact on their workflow.

## Appendix E: Campus and RLF Workflows Comparison Charts

### E-1: RLF Workflow Comparisons<sup>1</sup>

| Workflow phase     | Activity   | NRLF   | SRLF  | Process Difference |
|--------------------|--|--|---|--------------------|
|                    |  | NRLF expects that deposits are sorted first by material type (e.g., books, serials, maps, microform) and then by size to help streamline NRLF staff processing.  | Campuses are expected to separate monograph and serial deposits on different book carts. Student staff will size, sort and physically review items for shelf-worthiness as items are built into processing queue.   | YES                |
|                    | Ensure initial deposit conditions are met                            | EFFECTIVE POINT: Relations with campus liaisons are smooth and efficient, even during staff turnover.<br>EFFECTIVE POINT: Shipments from campuses are generally very well prepared.  | PAIN POINT: Turnover of campus staff responsible for SRLF deposit work, and associated learning curves for new staff, can affect quantity and quality of materials being deposited to SRLF.<br>EFFECTIVE POINT: Having their own driver for pickup / dropoff allows for control over the deposit shipment process.  |                    |
|                    |  | Each item sent to NRLF as a candidate for deposit must have an OCLC number in its local bibliographic record and evidence of this OCLC number, along with other bibliographic data, must accompany items in the shipment.  | Each item deposited at SRLF must have a property stamp. Non-Roman items, such as CJK or Persian titles, must have accompanying bibliographic record printouts since SRLF staff lack language and transliterating expertise. SRLF staff have not found OCLC numbers to be completely reliable in confirming item to online record matching or determining duplication. Additionally, many records lack OCLC numbers. | YES                |
|                    | Associate items in-hand with bibliographic data                      | PAIN POINT: Entering data from the owning campus' record printouts into either Millennium or OCLC Connexion manually is not ideal and takes time, and variations in local cataloging practices can prove time-consuming in identifying record matches.<br>EFFECTIVE POINT: One campus provides an Excel sheet in electronic form with their shipment (including OCLC numbers and other bibliographic data for each item) which supports NRLF staff in quickly and accurately identifying metadata matches.   |   |                    |
| Accession deposits |  | A routine step in NRLF deposit item processing involves searching Millennium for a potential bibliographic record match based on barcode, OCLC record number, title and/or call number. If this initial match point is made, the item is then confirmed to be a match for the record based on additional data points and then the item and holdings (for serials and multi-volume monographs) record updated in Millennium to reflect that the item is now at NRLF. If no matching bibliographic record is found in Millennium, NRLF staff will search OCLC Connexion for a match and then, after confirming that a record matches the item in-hand, will download the record for inclusion in Millennium, and create the item and holdings records to reflect that the item is now at NRLF. | Most deposits from non-UCLA campuses can be matched to a record in Voyager, though some need to have bibliographic records imported into Voyager via Z39.50.  | YES                |
|                    | Search for item metadata, include in local ILS, match serial volumes | PAIN POINT: Searching serials, analytics, and bound-withs is challenging: for finding dupes, matching incoming items, and fulfilling requests.<br>SUGGESTION: It would be ideal to have a process that would download/ingest the bib records for items shipped for deposits from the non-UCB owning campus' local database into Millennium.  | PAIN POINT: Differences in cataloging practices, especially with serials, makes searching for dupes and matching records time-consuming.<br>PAIN POINT: Z39.50 connection problems can cause slowdowns.   |                    |

<sup>1</sup> In October 2015, the RLF Systems and Workflows Project Team engaged staff from each of the UC Regional Library Facilities (RLFs) to learn more about their workflows and data flows. Information was gathered by conducting in-person and remote interviews, and by gathering responses to targeted questions and extent documentation. RLF staff were asked specifically about pain points in their workflows and dataflows as well as points in their workflow phases and activities that they found to be particularly effective. Additionally, RLF staff were asked to provide suggestions for addressing known pain points or to consider new opportunities. In the table above, each row correlates to a sequential phase and attendant activity in each RLF's deposit intake workflow. These phases and activities are briefly described in the far-left two columns of the table, though activities that did not elicit a substantial discussion of pain points, effective points, or suggestions have been omitted in order to focus on those that did. The far right column identifies activities that are handled differently at each RLF. Pain points reported by the RLFs are color coded in **pale red**, effective points in **green**, and suggestions in **orange**.



|                                      |  |   |  |  |
|--------------------------------------|--|---|--|--|
|                                      | Detect whether item is duplicated at one of the RLFs | NRLF processing staff assumes the depositing campus has conducted a sufficient search for duplicate volumes across the current holdings of both RLFs. As such, NRLF staff do not routinely confirm whether incoming deposit candidates are duplicated at one of the RLFs. Rather, duplicates may be identified in two ways: (a) when staff verify deposit items in-hand against available bibliographic metadata that will be used in their ILS (the UC Berkeley Millennium system); or (b) while searching Worldcat Local (Melvyl) as part of troubleshooting a bibliographic record problem.            | In support of duplicate detection, staff include a routine check in the UC Berkeley Oskicat catalog for duplicate holdings at NRLF when they are searching for item metadata to include in the Voyager.  | YES  |
| Update metadata                      |  | NRLF staff create item and holdings records to reflect that deposited items are now at NRLF. NRLF holdings symbols are added to OCLC via regular batch updates conducted by staff in UCB's Library Systems Office. If minor metadata corrections are needed, these may be made by NRLF staff and shared (typically by email) with the owning campus so that they can adjust their local record accordingly.   | Records imported from depositing campus catalogs via Z39.50 need to be stripped of local information in compliance with UCLA cataloging standards. For UCLA deposits, UCLA barcodes are re-linked to SRLF holdings to preserve UCLA's circulation history. SRLF staff also add value to UCLA metadata in Voyager by maintaining UCLA serial holdings data and LHRs. This work includes editing UCLA holdings records to reflect deposit decision and withdrawal. SRLF worked with UCLA to develop and implement standard formats for holdings statements and item enumeration patterns, which are routinely and retroactively imposed on newly deposited serial volumes as well as non-standardized legacy/migrated records. UCLA library staff are responsible for adding SRLF holdings information to Melvyl, which happens in batch on a weekly basis. UCLA library staff are also responsible for making changes to bibliographic records when significant updates are needed (e.g., title changes for serials). | SUGGESTION: Relinking UCLA barcodes to SRLF holdings for UCLA deposits is time-consuming - these are currently handled one at a time - so this step could be better addressed. |
| Overall item processing              |  |   | EFFECTIVE POINT: Having SRLF IT staff has greatly helped in terms of creating custom programming and macros for automating processing.   | YES  |
| Provide feedback to owning campuses  |  | When NRLF staff encounter bibliographic data errors that uncover a mismatch between the item in-hand and the metadata, they will communicate these to the owning campus for resolution. In some cases the mismatches require cataloger judgment, and the item may be returned to the owning campus for review before being re-sent for NRLF deposit.  | Items that cannot be confidently matched to online records are returned to depositing campus for cataloging review and update.   |  |
| Provide post-deposit access services | Support item retrieval                               | PAIN POINT: The NRLF barcode is an essential piece of data that is often missing from Access requests - only requests coming directly from UCB patrons carry that data, all other ILL / DDS requests have to be matched manually, which is highly time-consuming.<br>PAIN POINT: Lag time between changes made to the location in a campus holdings record and the actual intake of an item at NRLF may result in misdirected access requests, thus consuming staff time in detective work.<br>SUGGESTION: It could ultimately be easier for users to access a centralized discovery and delivery system. | PAIN POINT: An SRLF barcode is automatically inserted into the Voyager call number field to aid ILL work. Still, barcode issues affect access services for requests coming in from non-UC sources, making matching records challenging.  | YES  |
| Other effective points               |  | EFFECTIVE POINT: Staff pride is especially apparent in the aspects of stewardship of the books (physical care) and metadata (improvement / accuracy of records), and service to patrons and campus staff (taking extra time to reconcile deposits and access requests).   | EFFECTIVE POINT: Processes have been in place for a long time, and refined to the point where things run very smoothly.<br>EFFECTIVE POINT: Staff pride manifests in their dedication to efficiency and in the promotion and branding of SRLF as a value-add institution, in particular in its relationship with UCLA.   |  |

## E-2: UC Campus-RLF Workflow Comparisons<sup>1</sup>

| Workflow Phase             | Activity                        | (deposit to SRLF)  |   |   |      |  |      |   |      | (deposit to NRLF)   |   |  |  |
|----------------------------|---------------------------------|--|---|---|------|--|------|---|------|---|---|--|--|
|                            |                                 | UCR  | UCSB  | UCI   | UCLA | UCSD   | UCSF | UCB   | UCSC | UCD   |   |  |  |
| Select deposit candidates  | Create deposit candidate list   | SUGGESTION: The RLFs could provide a wishlist of what they need, perhaps for completing serial runs. | SUGGESTION: Provide opportunities for interoperability. Allow API access to RLF item data to support local decision making. |   |      |  |      |   |      | EFFECTIVE POINT: Filing a ticket with UCB Library Systems Office to create the initial list of eligible deposit candidates has improved efficiency. | SUGGESTION: RLFs could work toward serials and multi-volume run consolidation by proactively creating complete and verified sets. |  |  |
|                            |                                 |  |   | PAIN POINT: Local selection process can take a long time. |      | PAIN POINT: Selection workflows are very time-consuming. |      |   |      |   |   | PAIN POINT: Performing a shelf audit for MVMS is a painful but necessary quality control step. |  |
| Support selector decisions | Consult campus allocation       |  |   |   |      |  |      |   |      |   |   |  |  |
|                            |                                 | PAIN POINT: Staff would like to increase due to local space concerns.                                |   |   |      |  |      | SUGGESTION: Larger/fairer allocations for the non-UCB/UCLA campuses; separate allocations for regular deposits vs. shared print deposits. |      |   |   |  |  |
|                            | Select for JSTOR, WEST, or JACS | EFFECTIVE POINT: JSTOR processing is easier because they work from a list of pre-selected items.     |   |   |      |  |      |   |      |   |   |  |  |

<sup>1</sup> In December 2015 and February 2016, the RLF Systems and Workflows Project Team engaged library staff from each of the UC campuses involved in RLF deposit work to learn more about their RLF-related workflows and data flows. Information was gathered by conducting in-person and remote interviews, and by gathering responses to targeted questions and reviewing extant documentation. UC campus library staff were asked specifically about pain points in their data- and workflows as well as points in their workflow phases and activities that they found to be particularly effective. Additionally, UC campus library staff were encouraged to consider opportunities for improvement and to provide suggestions for addressing known pain points. In the table above, each row correlates to a sequential phase and attendant activity in the campus – RLF workflow. These phases and activities are briefly described in the far-left two columns of the table, though activities that did not elicit a substantial discussion of pain points, effective points, or suggestions have been omitted in order to focus on those that did. Pain points reported by the campuses are color coded in **pale red**, effective points in **green**, and suggestions in **orange**.

| Function/Phase                          | Activity   | UCR  | UCSB   | UCI   | UCLA   | UCSD   | UCSF  | UCB  | UCSC  | UCD   |
|---|--|--|--|---|--|--|---|--|---|---|
| Determine deposit candidate eligibility | Detect whether item is duplicated at one of the RLFs | <p>SUGGESTION:<br/>Combine the RLF catalogs so there is one place to find definitive data about holdings.</p> <p>SUGGESTION:<br/>Provide options for campuses to "queue" or "claim" their anticipated deposits so that these are factored into duplicated detection.</p> | <p>PAIN POINT: RLF Tool only works well for single volume monographs, so duplicate detection for serials and multi-volume monographs need to be addressed manually and it takes a long time. They have discontinued sending serials the past years due to the amount of effort and time it takes to conduct duplicate detection.</p> | <p>PAIN POINT:<br/>Duplicate detection for serials is painful and time-consuming.</p> | <p>PAIN POINT:<br/>Conducting duplicate checking against NRLF holdings.</p>  | <p>PAIN POINT:<br/>Confirming serial and mono set volume duplication is not well supported - while using the RLF Tool to batch detect duplicates for single monographic volumes is quite effective, the RLF Tool is inadequate for serials and checking in both the UCLA and UCB catalogs takes a lot of time.</p> | <p>SUGGESTION: If campus staff had access to the RLF database then they could "tag" and claim items that they plan to deposit. This would minimize the potential for rejected materials if another library deposited the items first.</p> | <p>PAIN POINT: The RLF Tool does not provide accurate information for multi-volume monographs (MVMs) or serials.</p> | <p>PAIN POINT: The RLF Tool can only be used to search single volume monographs, and even then there seem to occasionally be errors in detection.</p> | <p>PAIN POINT: While the high degree of accuracy in UCD duplication checking is a point of pride, the number of bibliographic databases required to search to get an accurate account of RLF and campus holdings (particularly at the item level) is problematic and time-consuming. It is often problematic to easily decipher our own and other libraries' exact holdings due to record differences and/or insufficient holdings/items information.</p> |
| Update local system(s)                  | Change location code                                 |  | <p>SUGGESTION:<br/>Eliminate duplicative work (e.g., for duplicate detection).</p>   | <p>SUGGESTION:<br/>Notification of any items in a "backlog" at SRLF.</p>              | <p>SUGGESTION:<br/>Normalization of data practices across the RLFs would improve duplicate detection accuracy.</p> | <p>SUGGESTION:<br/>Establish a unified system for the RLFs with consolidated holdings.</p> <p>SUGGESTION:<br/>Convert all brief records to full OCLC records; use successive entry cataloging whenever possible for serials.</p>   |   | <p>SUGGESTION: An improved de-duping tool that can report on MVMs and serials at the volume level.</p>               | <p>SUGGESTION:<br/>Improvement to the RLF Tool so that it can accurately search other formats (beyond single-volume monographs).</p>                  |   |

| Function/Phase   | Activity | UCR | UCSB | UCI | UCLA   | UCSD   | UCSF   | UCB | UCSC   |
|--|----------|-----|------|-----|--|--|--|-----|--|
| Communicate/Coordinate with RLF  |          |     |      |     | <p><b>EFFECTIVE POINT:</b><br/>Work and communication with SRLF staff is very effective.</p>   | <p><b>EFFECTIVE POINT:</b><br/>The QA provided by NRLF is excellent. UCSF has high confidence that if there's any issue with a shipment it will be caught for correction.</p>  |  |     | <p><b>EFFECTIVE POINT:</b><br/>Good working relationships/communication with NRLF staff.</p>   |
|  |          |     |      |     |  | <p><b>SUGGESTION:</b><br/>Improved / timelier statistics from NRLF would help UCD with tracking their deposits and remaining yearly allocation especially in the area of Special Collections and microscopy where we approximate volume equivalency.</p> |  |     | <p><b>SUGGESTION:</b><br/>Improved / timelier statistics from NRLF would help UCD with tracking their deposits and remaining yearly allocation especially in the area of Special Collections and microscopy where we approximate volume equivalency.</p> |
| Ship Items   |          |     |      |     | <p><b>PAIN POINT:</b> Items rejected by SRLF have already been subject to time-intensive work.</p>   | <p><b>PAIN POINT:</b> Rejections have to be reprocessed, which can be time-consuming.</p>  | <p><b>EFFECTIVE POINT:</b><br/>Staff are proud of how effectively Doe / Moffitt Circulation handles the packing and shipment of materials to NRLF.</p> |     |  |
| Address rejected items   |          |     |      |     |  |  |  |     |  |
| <p>Post Deposit Access:<br/>Page deposited items to patrons<br/>(RLF home campuses only)</p> |          |     |      |     | <p><b>EFFECTIVE POINT:</b><br/>Since UCLA and SRLF share an ILS, requested materials from SRLF are treated as regular circulation transactions.</p> <p><b>SUGGESTION:</b> Use of a user-centered access tool that makes life easier for those accessing these materials.</p> |  |  |     |  |

| Function/Phase   | Activity | UCR   | UCSB | UCI   | UCLA | UCSD  | UCSF   | UCB | UCSC  | UCD  |
|--|----------|---|------|---|------|---|--|-----|---|--|
| Post Deposit Access:<br>ILL deposited items to patrons |          | PAIN POINT:<br>Because they do not have a link to Request in their local catalog, it's challenging for patrons to ILL RLF items. However, delivering deposited items that have been ILLed back to their patrons works well. |      | PAIN POINT:<br>Eliminate or reduce areas of confusion for our users (e.g. both UCI and RLF symbol set on deposits in MELVYL). |      | PAIN POINT: Items received from SRLF ILL generally have a quick turnaround. However, UCSD staff report repeated problems with incorrect items being sent, the root cause of which is under consideration / investigation. | PAIN POINT:<br>Access to items (discoverability). NRLF holdings are kept in the UCSF catalog, but many patrons don't know that NRLF is in Richmond. Items that are withdrawn are suppressed and are invisible in the catalog; likewise items held at SRLF (for example volumes in a serial set) would be accessible only through Melvyl. |     | SUGGESTION:<br>Clarity in discovery can be improved so that patrons can see exactly where items are; finding records for NRLF and SRLF in Melvyl, versus records in the local ILS is often confusing for patrons. | SUGGESTION: UCD feels very proud of the quality of their bibliographic metadata work and often wishes that the "canonical" catalog records used in the NRLF system for their items come from their catalog (via OCLC), though when records suggested by NRLF are of equal or better quality, note that these are appropriate to use. |
|  |          |   |      |   |      |   | SUGGESTION:<br>More communication on RLF policies and practices, tip and tricks, etc.  |     | EFFECTIVE POINT:<br>UCSC has done a lot of work streamlining the deposit process and feels confident in the efficiency of the workflow.   |  |
| Other effective points and suggestions                 |          |   |      |   |      |   |  |     |   |  |

## **Appendix F: Opportunity Areas Identified from Campus and RLF Data Gathering**

### **1. Improve Duplicate Detection**

Confirming RLF holdings vs campus holdings is challenging and time-consuming for staff.

### **2. Improve Data Exchange/Syncing**

Representation of RLF holdings varies depending on the system (local, RLF home, Melyvl), and patron discovery and access are impacted as a result.

### **3. Standardize Disposition of Physical Items**

Campuses vary in handling items rejected from RLFs, both physical and data disposition.

### **4. Learn from “Ideal” workflows: WEST, JSTOR, JACS**

Some campuses prefer these workflows, where selection may have already been decided via “picklists” from the RLFs.

### **5. Ownership vs. Stewardship of Items: Move toward a “Shared Collection” Philosophy**

Campuses vary in their approaches to considering and representing their continued ownership of deposited items; many see the RLF collections as a “shared” collection for purposes of user access.

### **6. Increase Allocations**

Many campuses need larger allocations and there is some concern for the uneven distribution of allocations.

### **7. Reduce Selection Delays**

Some campuses experience a protracted delay between the time that they make initial RLF deposit candidate selections and their shipment to their RLF. This can result in inadvertent duplication as multiple campuses send items for deposit at the same time.

### **8. Improve Communication**

Campuses sometimes aren't able to get up-to-date information on RLF processing policies and deposit statistics. Suggestions include: conducting regular meetings, making sure the RLF webpages are updated, and sending out regular updates of deposit statistics.

### **9. Improve Ease of Patron Access to RLF Materials**

Campus practices vary widely in what information they include in local OPACs about RLF deposits (their own as well as those deposited by other campuses), so patrons do not get a complete picture of what is accessible to them from only the local OPAC. Multiple holdings statements (from RLFs and local campuses claiming an “RLF” location) in Melvyl also result in confusion about item availability there.

### **10. Improve Tracking of Materials throughout Deposit Workflow**

Campuses have set up tools external to their ILSs to serve inventory management functions (see UCD one page summary for example). Could such tools improve efficiency?

### **12. Address Splitting Holdings of Serial Runs between RLF / Campus / RLF**

Some campuses don't like to split serial runs because discovery of and access to individual items can be tricky. Additionally some have faculty who are philosophically opposed to split holdings.

### **13. Reduce or Remove Differences in RLF Workflow**

In some cases (e.g., duplicate detection responsibilities, JACS workflow) SRLF and NRLF approach workflows differently, making implementation of UC-wide programs more complex

## **Appendix G: Original Charge for RLF Systems and Workflows Project Team**

### **RLF systems and workflows project team – 8/18/2015**

#### **Project scope**

The goal of this project is to identify and evaluate opportunities to create workflows and information systems involved in depositing and managing items at the RLFs that streamline work and data exchange or help support transformative services or information systems. In order to identify and evaluate these opportunities, the RLF systems and workflows project team should, in partnership with campus libraries and RLFs, evaluate current workflows and information systems; explore alternate workflows and information systems and recommend opportunities to adopt new workflows and systems that deliver on one or more of the key outcomes (e.g. streamlined work, better service, improved systems).

#### **Background**

In 2014/15 the UC Library system conducted an exploration into the possibility of adopting a shared ILS. The report surfaced a number of challenges and opportunities associated with ILS use in the UC libraries, one of which is the need in the Regional Library Facilities (RLFs) to interoperate well with each library for deposit of and access to materials. While the system did not choose to pursue a shared ILS project at this time, it appears that there are more unanswered questions about how the RLFs create and manage metadata, how the UC Libraries make use of that data and what opportunities may exist to try things differently. Two clear potential cases here include the redundant data entry in Berkeley and UCLA catalogs, the need to check multiple systems for deposit and the ambiguity of ownership for depositing campuses. Stated another way, there may be a business case for investing in shared systems and workflows across the RLFs if we can identify ways in which this investment saves resources for other work, improves service, or serves as the foundation for future collaboration and innovation in library information systems.

#### **Proposed project tasks**

1. Identify workflows and information systems in use at RLFs and on campuses with the goal of understanding a baseline understanding of workflows, data flows and system functionality.
  - a. Identify RLF information systems, workflows and data (e.g. what information systems do RLFs use, how do they interact with campuses, what data is needed at the RLFs vs. campuses)
  - b. Identify functional requirements of RLF information systems today. What metadata must be tracked, what services must be offered, what system integration must exist.
  - c. Identify campus workflows for depositing to RLFs. What information systems do campuses use, how are items prepared and shipped, what information is exchanged with the RLFs. What changes do campuses make in their own information systems?
  - d. Identify the workflow of shared service operations - (e.g. shared cataloging in UC, shared print at CDL). What data do these operations need and what data do they produce? How does this data factor into RLF information systems?
2. Conduct systems analysis with gathered information. Identify redundancies and gaps. Focus on three possible outcomes both between the RLFs and between the RLFs and the campuses: How could workflows/systems be changed to:
  - a. Streamline internal workflows
  - b. Streamline information exchange and information systems
  - c. Support transformative systems/services (e.g. streamline shared print or shared cataloging; enable linked data projects; enable national shared print collaboration; facilitate collection management)

3. Complete lightweight business analysis. Identify business case for adjusting workflows/systems. Where is there obvious opportunity to streamline or transform systems?
4. Frame recommendations and potential action plan via report to CoUL. Focus on high-level processes, opportunities, anticipated outcomes, implications of changes, benefits to stakeholders (e.g. campuses, rlf, library users).

### Proposed timeline

| Task                   | Approach   | Completion Date  |
|------------------------|--|--|
| Engage project manager |  | August 2015 (completed)  |
| Form project team      |  | August 2015 (completed)  |
| Complete phase 1       | <ul style="list-style-type: none"> <li>• Identify workflow gathering technique</li> <li>• Work with RLFs and SCP to gather data</li> <li>• Complete systems analysis report based on data gathered; establish process for phase 2</li> </ul> | Mid September 2015<br><br>End of Sept 2015<br><br>Mid October 2015 |
| Complete phase 2       | <ul style="list-style-type: none"> <li>• Gather data from initial campuses on their work/data flows to/from RLFs (UCB, UCD, UCLA, UCSB, CDL)</li> <li>• Conduct systems analysis; re-evaluate process</li> </ul>                             | Mid November 2015<br><br>End of November 2015                      |
| Complete phase 3       | <ul style="list-style-type: none"> <li>• Gather data from remaining campuses on their work/data flows to/from RLFs (UCSF, UCSB, UCM, UCI, UCR, UCSC)</li> <li>• Conduct systems analysis</li> </ul>  | End of January 2016  |
| Complete phase 4       | <ul style="list-style-type: none"> <li>• Complete business analysis</li> <li>• Complete report</li> </ul>  | February 2016<br>March 2016  |

### Project members

MacKenzie Smith (Project sponsor)  
 Erik Mitchell (Project Lead, Campus NRLF representative)  
 Kathryn Stine (Project Manager)  
 Caitlin Nelson (Metadata analyst)  
 Todd Grappone (Campus SRLF representative)  
 Martha Hruska (Campus and SCP representative)  
 Tin Tran (SRLF representative)



## Appendix to the August Charge

April, 2015

To: Erik Mitchell  
From: Council of University Librarians  
Subject: Business Case for a Shared UC RLF ILS/RMS

CoUL continues to be interested in the question of whether the UC Libraries should invest in a shared Integrated Library System/Resource Management System (ILS/RMS) to support its common activities. The recent report of the Shared ILS/RMS Feasibility Task Force concluded that a shared RMS system for some or all UC Libraries is technically possible but we recognize the daunting scope and scale of such an undertaking, especially with the large number of other systemwide projects already underway. Shared infrastructure will require both technical and cultural changes to our organizations, potentially affecting hundreds of library employees, so we do not take such an undertaking lightly. At the same time, we continue to see the potential value in this direction and recognize that sister organizations such as the California State University's library system are adopting shared ILS infrastructure to achieve greater efficiencies, equities, and economies of scale.

We envision a way forward as beginning to experiment with such shared infrastructure to support one or more of our current systemwide operations. In other words, we would like to explore whether it is possible to run a shared ILS/RMS while maintaining local ILS and similar infrastructure at the ten campuses and CDL, with an appropriate division of operations and the workflows they require. This would allow us to gain experience working in a shared infrastructure environment without committing to a full-scale conversion of the entire system to a single shared RMS for everything we do. Part of the charge to the Shared ILS/RMS Feasibility Task Force was to "enumerate the NGTS recommendations that might benefit from a shared back-end business system" and describe how such systems facilitate collaboration. The report mentions candidate shared services, such as a shared Federal Government Documents collection or shared demand-driven e-book acquisitions program. Additionally there could be value in a shared ILS to support our Shared Cataloging Program and systemwide e-resource management.

However, one of the most pressing problems facing the UC Libraries today is our shared print collection currently housed in the Northern and Southern Regional Library Facilities, both of which are rapidly filling and require new strategies and significant investment in order to continue operation over the next decade. For the RLFs, a shared ILS/RMS may have significant value in improving operations, especially if we pursue the integration of the two collections and create true co-dependency. So as a next phase of investigation, we would like to explore how a shared ILS/RMS system would support the RLFs and how it might achieve some of the promised efficiencies, e.g., improved workflows, resulting in more efficient use of staff resources. In other words, is there a business case for investing in a shared ILS/RMS for the RLFs that interoperates with the existing ILSes at the ten campuses and CDL?

To develop the business case, we ask that you charge a small task group to work alongside and in parallel with the team working on RLFs' capacity plans. The business case should describe the scope and potential role of the shared infrastructure. This may include defining participants, policies, workflows, data models, and interactions with local ILSes or other local infrastructure systems (e.g. financial systems), as well as systems managed by CDL or other 3rd party systems outside UC (e.g., WorldCat). MacKenzie Smith, the University Librarian at UC Davis, will serve as the CoUL liaison to the task group, and will work with you to identify group members and consultation/communication strategies with both CoUL and UCLAS.

We request that the task group submit a report that includes its analysis and recommendations by September 1, 2015.