## U.S. GEOLOGICAL SURVEY LIBRARY SERVICES GROUP COLLECTION DEVELOPMENT PLAN JANUARY 2002

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## CHAPTER I INTRODUCTION

## **The USGS Library System**

The USGS Library System (known as the Library Services Group) is the largest and most comprehensive earth science library in the world. This unique resource, established in 1879 by the founding legislation for the agency, serves both USGS scientists and the public. In addition, several smaller USGS libraries, outside the Library Services Group, house specialized collections or serve the needs of a group of local researchers.

## What libraries form the USGS Library Services Group (LSG)?

The USGS Library Services Group (LSG) is a network of four libraries located in Reston, Virginia; Denver, Colorado; Menlo Park, California; and Flagstaff, Arizona serving USGS employees in the U.S. and abroad. The libraries are open to USGS staff and the public. Information and assistance are available to patrons by phone, fax, mail, and email. Online access is provided via the World Wide Web at <a href="http://library.usgs.gov">http://library.usgs.gov</a>.

Services to the public include:

- reference and research assistance
- online access to the USGS Library's online catalog
- guidance in the use of information discovery tools
- and the lending of materials through the customer's local public, corporate, or university library.

Additional services provided to USGS employees are:

- direct lending and faxing
- acquisition of documents from other libraries
- electronic delivery of publications and information
- foreign language translations
- access to additional digital bibliographical databases
- use of electronic journals
- and in-depth reference assistance.

## What is the legacy collection of the Library Services Group?

The USGS LSG's holdings include more than 1.2 million scientific books, 8,500 different journal titles, 450,000 maps, 400,000 microforms (which include earth science dissertations from most U.S. universities), 300,000 black-and-white photographs, 270,000 pamphlets, 50,000 color transparencies, 20,000 field record notebooks, 1,000 CD-ROMs, and 500 videocassettes. These publications, collected during a century of library services to the agency, are an invaluable legacy to the nation.

The USGS Library Services Group provides access to all USGS publications and other related federal depository materials. The collections contain natural and physical science publications and maps produced by state and foreign geological surveys, other government agencies, scientific societies, museums, academic institutions, and commercial publishers. Some materials held by the USGS Library Services Group are very rare. In a few cases, they are not available anywhere else in the world.

The scientific materials owned by the USGS Library Services Group come from a broad variety of disciplines: aquatic and marine sciences, biology, cartography, ecology, geology, geophysics, hydrology, mineral and energy resources, paleontology, physical geography, natural hazards, and supporting scientific, mathematical, engineering, and technological sciences.

The USGS LSG has built its unparalleled collections through purchasing, depository arrangements, gifts, and a system of exchanges. 3,000 exchange agreements are in place with other institutions around the world. In exchange for USGS publications and products, foreign and domestic scientific agencies, museums, and academic institutions provide copies of their scientific publications and products.

## Who uses the USGS Library Services Group?

USGS scientists rely upon the USGS LSG 's comprehensive holdings to review past investigations, stay current with current trends and techniques in scientific research, and prepare new research directions. Results of USGS research available through the LSG are used by policy and decision makers at all levels of government to provide thorough, integrated approaches to managing America's natural resources. The USGS Library Services Group's multidisciplinary scientific literature and map collections provide an ideal and effective resource for geographic, or place-based, scientific decision-making.

Although the collection was developed to serve the needs of USGS scientists, half of the current users are external to the USGS. Frequent customers include other Federal agencies such as the U.S. Department of the Interior and its bureaus, NASA, the U.S. Army Corps of Engineers, the Department of Justice, the Environmental Protection Agency, and the Department of Energy.

University instructors and students from schools such as the College of William and Mary, Pennsylvania State University, Johns Hopkins University, Stanford University, Virginia Polytechnic Institute, and Texas A&M use the unique collections of the USGS Library Services Group. Additionally, U.S. and international businesses, research institutions, professional associations, libraries, authors, the media, students and teachers, and other citizens find the USGS Library Services Group valuable in their work.

## What will be the USGS Library of the Future?

The USGS Library System is taking advantage of the revolution in electronic information access. The amount of information available at a keystroke is increasing exponentially along with the development of navigational and organizational tools to locate relevant material. The skilled professionals of the USGS Library Services Group and other USGS libraries will continue to

guide users in using information tools, locating resources, and obtaining both older and current publications. The next several years will see an evolution of the USGS Library Services Group from a traditional library to a more "virtual library" where the source or physical location of natural science information, USGS-produced or otherwise, is transparent to the user. Users will increasingly have desktop access to the library on a twenty-four hour a day, seven days a week basis.

## Why is a Collection Policy Needed?

This Collection Policy represents policies needed to guide the development of the collections of the USGS Library Services Group. The Collection Policy will guide selectors in choosing materials for the collection, including electronic publications and databases; assist managers in planning and reviewing development of the collection; inform Library and USGS staff, outside users and other interested persons of the nature of the collection and the direction of its development. Additionally, it will serve as the basis for cooperative collection development agreements with other institutions and agencies.

The Collection Development Policy is intended to guide the selection and preservation of library publications to provide for the current and future information needs of the USGS researchers. Three subject specialties of the traditional divisions of the USGS: water, geology, and mapping, are reflected in the legacy collection.

The additions of the National Biological Service and some sections of the U. S. Bureau of Mines to the U.S. Geological Survey have brought into the agency researchers with new interests. Increasing demands for integrated scientific research and assessment in complex scientific issues involving natural resources, natural hazards, and environmental issues in an increasingly urbanized, heavily populated world require changes to traditional collection policies.

Comprehensive changes in computer technology, telecommunications, the Internet, and digital information are shifting the focus of the library away from the traditional book and map formats. Increasing costs of staff, space, technology, and publications, coupled with limited budgets, require careful selection, far-sighted planning, and rational judgement in collection-building.

## **CHAPTER 2 GENERAL POLICIES**

## **Introduction**

In the past, libraries tried to be comprehensive, striving to collect, catalog, process and shelve all publications their users might need. Users often had to wait weeks or months for publications not owned by the library. Except for some mail distribution, researchers had to come to the library to search for information during the limited hours it was open.

Modern economics of the government and academia coupled with the volume of published information prevent any librarian today from even dreaming about working toward a truly comprehensive library. Publications not in the library's collection can be quickly obtained from partners, purchased, or accessed electronically. Within the USGS, widely spread field offices, extensive travel, and fieldwork prevent users from coming to the library. The library must come to them.

## **Goals and Strategic Actions**

The following Goals and Strategic actions from the USGS Library Strategic Plan, October 1997, provide overall guidance in the selection and preservations processes relative to this plan:

**Collection**: Collect the most pertinent scientific and technical publications and reference material needed by USGS employees.

- Develop a collection policy that supports the broad range of scientific and technical activities of the USGS
- Make the USGS Library System the official repository of the USGS publications.
- Develop a system-wide approach to manage duplication of holdings.
- Use accepted library standards to manage the collections of USGS Library System.

**Collection Balance**: Provide an appropriate balance of media types considering user needs, external collections, and funding.

- Develop a collection plan that addresses the appropriate media for all USGS Library System holdings using multiple criteria that include customer usage.
- Design collections and services that will supply information regardless of location or format.
- Provide quick and economical access -- not necessarily ownership -- to needed information resources.

• Develop and implement an active program of cooperative collection development and resource sharing among the USGS libraries and external libraries.

**Preservation**: Preserve the information resources of the USGS Library System collections for continuing use.

- Implement a strategy for preservation, organization, and access to all formats of information in the USGS Library System collections.
- Ensure that the libraries have software, hardware, and telecommunications to sustain and to provide future access to electronic information holdings.
- Develop and implement a plan for the deposition of scientific records, maps, and photographs.

## **General Guidelines**

The following general guidelines apply to collection development:

## **Legacy Collection**

The Library will continue to preserve and build the collection in traditional subjects while responding to needs for expanded collecting in biology, engineering, climatology, physical sciences, environmental sciences, and related subjects.

While responding to the current and anticipated subject interests of USGS researchers, the LSG is aware of its legacy collection of core geology publications. Although not defined by Congress as a national library, the Library recognizes that it has, in fact, the premier national collection of geologic and hydrologic publications. The goal of the Collection Development Plan will be to identify both traditional and new core subjects and provide a balanced collection direction for future selection.

## **Regional Subject Interests**

➤ In order to co-locate publications closest to the most researchers, the Collection Development Plan will identify subject specialties for the LSG libraries according to USGS regional research patterns.

At one time, the Library had the luxury of purchasing three or more subscriptions or four copies of a book title for its collections so that researchers in each region had easy access. Today economics prohibit such duplication. Fortunately, express mail and electronic delivery make duplication unnecessary for most of the more popular publications. Single copies of regional publications owned by the system will be located in the area where they are most heavily used.

## **Library Cooperation**

➤ The Library will develop partnerships, consortia, and cooperative agreements to supplement access to materials not owned and to share its resources with other libraries.

The USGS Library Services Group contributes to the nation by building a unique collection in the natural and earth sciences which complements the collections of partner libraries and makes this collection available through interlibrary loan and on-site use. The library has established a consortium with other USGS libraries and will consider establishing regional cooperative agreements with other governmental, academic, state and institution libraries to supplement access to materials not owned and to develop collections in harmony with partners.

Electronic technology and cooperative agreements enable libraries to rely on other libraries and information providers for publications with limited use, while they concentrate on building a collection closely tailored to the library's primary customers. The USGS Library Collection Plan presumes the continued availability of loans from the Department of the Interior (DOI) Library, the Library of Congress (LC), the National Library of Agriculture (NAL), the Smithsonian Libraries, other government libraries, and major university libraries as sources of books, maps, journals, or other materials not owned by the USGS. Besides system-wide partnerships, each LSG library will work to cooperate regionally with local federal, academic, state, and institutional libraries.

## **Commercial Document Suppliers**

➤ The Library will plan the collection to include ownership of the most heavily used journals and rely on commercial document suppliers for articles needed quickly from journals outside the scope of the collection.

Since the LSG libraries cannot own all journals ever needed by researchers and borrowing from partners often requires delays, the LSG will obtain articles from commercial document suppliers as needed. The suppliers will be assessed annually for speed in responding to requests and overall cost.

#### **Electronic Publications.**

➤ The LSG will acquire access to selected electronic publications and carefully choose the most useful combination of electronic resources and traditional resources, annually weighing the value of information service received against the costs of that access.

Electronic publications require that the Library purchase license agreements. Licenses confer access, not ownership. Funds must be available each year to renew licenses for continued use. Electronic access tends to be increasingly expensive and the threat of insufficient funds to cover future renewals is real. The library staff must investigate the most economical means of electronic access and the value of added features for the users. The librarians must remain alert

to new services that may offer more value, a better combination of e-journals, and more useful added services.

## **Intellectual Responsibility**

No materials will be excluded from the collection because of race or national origin of the authors, or because of the political, moral, or religious views expressed therein.

The USGS Library Service Group is an unbiased repository for the recorded expression of humankind's intellectual efforts in the field of the earth sciences. We accept responsibility for providing in our collections a representative selection of materials dealing with controversial questions and spurious science. The addition of an item to the collection does not represent an endorsement by the Library of any theory, idea, or policy contained in the publication.

## **Duplication**

The library staff will plan to decrease the unnecessary duplication of materials within the system by coordinated acquisition practices and planned weeding.

#### COPIES IN BOTH ELECTRONIC AND PAPER FORMATS

➤ Until the archiving of electronic publications is securely established, the LSG libraries will retain a paper copy of publications also available electronically. Multiple subscription copies will be discontinued whenever allowed by licensing agreements.

## MULTIPLE COPIES WITHIN A LIBRARY

Each library in the LSG will avoid duplicating materials within its collection.

Keeping multiple copies of the same work within any library, especially when all copies are on the shelf most of the time, involves hidden costs including shelving, record-keeping, etc. Recalling materials or setting time limits on loans so other users can use the same publications also carries costs. Nevertheless, circulation keeps materials in use and not gathering dust on shelves in the library or in a borrower's office.

The same publication in two or more formats will be collected if each format is useful to a different group of users. When a book is published in two or more places with the same text, but different imprints, the library will keep no more than one.

When the same publication is issued in different series, only one copy will be kept in the best known or most important series. Additional copies received automatically or as gifts may be added to the other series, but no attempt will be made to acquire copies for each series. If a publication is issued as a journal number and as a separate, only one copy will be kept in a library, although the alternate format may be selected by another library in the system. The library will generally not keep reprints or parts of a publication owned as a whole.

Each library may choose to duplicate those titles that the staff recognizes will be in high demand.

Each library will select those titles that the staff recognizes as certain to be in frequent use and add extra copies. As the information in these selected titles becomes dated, the library should weed superfluous extra copies.

## **MULTIPLE SYSTEM COPIES**

Libraries will avoid ordering copies of publications already owned or ordered by other system libraries and eliminate most duplicate subscriptions.

Duplication within the system has an advantage of providing immediate local access to critical resources and acts as insurance for the entire system by reducing the overall loss if one library should be destroyed. However, duplication will be controlled in the future due to economic factors. Better systems of quick delivery of requested material will alleviate the need for each library to acquire publications held in other system libraries, available through interlibrary loan, or accessible electronically.

#### LARGE HOLDINGS OF JOURNAL

One LSG library will be designated as the final repository for paper copies of each journal which has very long runs occupying many shelves. The list will include about 20 titles overall, including American Journal of Science, Science, Nature, Journal of Geophysical Research, etc.

Some long-term major natural science serials require many shelves to store and impact the availability of expansion shelving. Back issues of many of these long runs will be digitized and available electronically. These journals are also held by many libraries within the United States. The LSG system will retain at least one paper copy of every serial and divide up the responsibility of maintaining the journal runs intact. One library will retain the most complete run, inventory the volumes regularly, and retain the paper copies in-house. This information will be prominently recorded on the catalog record. The other libraries will then be free to choose to remove all of the library's paper issues or retain only the most recent years of the journal.

#### **Editions**

➤ Users should have access to the latest edition wherever possible. For core subjects, it is desirable to keep one copy of an older edition in the system, but not to retain all older editions in multiple libraries or to keep older editions in non-core subjects readily available at other libraries.

It can be presumed that the reason new editions of a title are issued is that the authors and publishers felt that additional, more recent, or more accurate information needed to be added. Users should have access to the latest edition wherever possible. Supplying them with out-dated

information is a disservice. The value of the older editions as a source of information drops seriously when superseded.

On the other hand, a series of editions traces the changes in the scientific thinking, instruction methods, and evolving information on a subject within the years the title is published. For core subjects, it is desirable to retain one copy of older editions in the system. It would be unnecessarily expensive to retain all older editions in all libraries or to keep older editions in non-core subjects in case an older edition is wanted when these copies are held in other U.S. libraries. Using a broad outline of the classification system the following policy will be followed for the following categories:

## A. <u>Latest edition only kept in all libraries:</u>

01-95 Science, computer science, information systems, bibliographies, directories, dictionaries and biographies [except for "Who's who in America", "American men and women of science", and a few directories in core subjects].

# B. All editions kept in Reston library; latest editions only kept in Denver, Flagstaff, and Menlo Park except for a few selected titles, i.e. atlases, geology dictionaries, subject specialities not held in Reston

101-190	Mineralogy and petrology
201-299	General geology, geologic hazards, tectonics, geodynamics, structural
	geology, geophysics, and geochemistry
301-371	Historical and stratigraphic geology
401-471	Mineral resources, mineral industries, mines and mining, and groups
	minerals
490	Groundwater
501-590	Geography, geomorphology, meterology, landforms,
	oceanography, and environmental sciences
600-690	Paleontology, paleoecology, paleogeography
740-750	Geodesy, surveying and cartography
780-797	Water resources, hydrology

## C. Latest editions only kept in all libraries

701-739	Mathematics, astronomy
760-779	Engineering
801-895	Physics and chemistry

## D. <u>Latest editions only kept in all libraries</u>; <u>older editions offered to biology libraries</u> 901-999 Biology, ecology, evolution, botany, agriculture, forestry and zoology

#### Cost

➤ The value of a publication to present and future library users is the basic criterion for the best use of library funds.

While some publications, no matter how important, may be beyond the available funds, the intrinsic value of publications must be considered. This requires judgment on the part of the selector. Several books might be acquired in place of one expensive publication, but if the expensive publication is judged as important, it may be harder or impossible to borrow in the future. The less expensive books are likely to be purchased by several libraries and will be easily available on interlibrary loan. It is also easy to accept free, gift, or inexpensive publications on any subject. However, the less apparent costs of cataloging, shelving, and preserving the publication will equal that of a more expensive item so the same criterion of value must be applied.

## **Supplemental Selection Criteria**

In selecting materials for the collection when the selector must make choices between comparable publications, additional selection criteria are:

Anticipated demand

Scope and format of the item

Manner in which the material is treated

Audience level

Currency of the information

Authority of the author or issuing body

Authoritativeness of the information

Comparison with the coverage of the subject by materials already in the system

Scarcity of published material on the subject

Scarcity of the publication in the United States

Timeliness or permanence of the item

Appearance of the title in special bibliographies or indexes

Publisher's history

Reviewers opinions

Availability and permanence of electronic access

#### **CHAPTER 3 SELECTION AND WEEDING**

## **Selection**

➤ Pro-active collecting requiring research, foresight, and planning by selectors is the preferred method of building the collection. Passive collecting, the choosing of what is easily available and familiar, will not build a collection that meets the needs of scientists in a rapidly changing world.

Selectors of new purchase materials are often pushed towards purchasing what is readily available or what has been deemed as needed by a few users because of a lack of time, availability of funds, and the frequent need to spend a sum of money before a deadline. Selectors should instead identify collection weaknesses, locate obscure publications in core subjects, and research publications in new subjects.

Selectors may develop a narrow focus determined by their library role, but should read what USGS researchers and others in their field are publishing, explore what instrumentation and research methods are being used within the Survey, and attend meetings and presentations to be alert to research subject directions.

Reviewing library circulation and ILL records and checking bibliographies attached to scientific publications against library holdings are only two of many ways to broaden selection avenues. While limiting selection to a very few individuals gives continuity to a collection, it may also narrow and limit the collection to the ingrained perceptions of these selectors.

Passive collecting, i.e. choosing the familiar and the easily obtainable, is not a wise way to build a collection for the dynamic world of science or the best use of scarce funds. Pro-active selection brings together the experience and knowledge of library staff in understanding the needs of clients, the judicious weighing of options in formats and subject matter, the concepts of how literature is actually used in science, the knowledge of the availability of publications beyond the walls of the library, and scientific expertise to continue to build an invaluable resource for the agency.

## Weeding

➤ Weeding, the removing of extraneous, superseded, and duplicated materials from the Library especially in non-core subjects, will allow more space and time for the staff to focus on adding and preserving valuable materials in the collection.

Weeding is the systematic evaluation of the Library's collection for the purpose of withdrawing materials from the collection that are no longer useful. Generally, the same criteria apply to weeding or 'de-selection' as are used in the selection of new materials. The basic question is: "What is the value of the publication?" It is tempting to skip weeding because of the extra work involved in removing records. However, the cost of shelving and shifting publications and of cluttering a subject area with obsolete or duplicate publications means that avoiding weeding also has costs that accumulate over time.

## ➤ Weeding must be a continuous process.

To reduce the burden on the professional reference staff as primary selectors, many weeding tasks can be distributed to technical staff without the accidental loss of valuable resources, if proper procedures and guidelines are instituted. Librarians or researchers with subject expertise should review subject areas for materials to add or discard in accordance with collection standards as time permits. Materials may be withdrawn if they are duplicate copies of seldom-used titles or no longer within the scope of the collection.

Acquisition and cataloging personnel, following collection standards, should routinely remove old editions when superseded. They can also discard extra copies when processing new or old materials, and consult with librarians about discarding superseded handbooks, reference materials, techniques manuals, etc. which come to their attention.

## CHAPTER 4 SPECIAL COLLECTIONS HISTORY AND POLICIES

## **Introduction**

> Special collections, or separating categories of materials from the main collection, will generally be discouraged except when required for security or difficult-to-shelve formats.

The practice of setting aside materials in special collections with unique identifiers, special circulation and use rules, different arrangements of materials, and different priorities of cataloging complicate the handling and access to these materials. The staff is required to learn another layer of rules and identifiers.

Special shelving increases the occasions when two copies of the same publication are shelved in two locations. The user must learn to locate the materials separately from materials arranged by the classification scheme and to predict what criteria the staff used to select materials for the special collection. The reasons for dividing out a category of library resources often become obsolete with time and the collection must be re-evaluated and integrated into the main collection. If a move has occurred, planners may not have left room for the integration, causing additional shifting.

The formation of special collections is against general library collection policies except for materials:

- 1) Issued in formats requiring special housing conditions for access and protection such as maps and globes, microforms, electronic discs, cartridges, and tapes, audiovisual materials, realia, and very small or very large sized publications. Even for these non-book or difficult-to-shelve formats, the number of divisions by format should be kept as low as possible, i.e. microfiche and microfilm should be physically close together.
- 2) Requiring surveillance and security because of identified cost and rarity such as rare books
- 3) Needing separation from the publicly accessible collection because of 'classified' or 'official use only' status.
- 4) Identified as newly received and kept apart for viewing by users for limited time periods.
- 5) For which circulation is restricted to keep the materials in the library for quick reference. This includes book reserves for attendees of workshops as well as standard reference materials
- 6) Collected for short- or long-term exhibits and not circulated during the length of the exhibit

## **Special collections**

The current non-format related special collections are:

## Aerial photographs of the San Francisco Bay area (Menlo Park)

The Menlo Park Library has a collection of aerial photographs arranged by regions and quadrangles in a unique classification system. The collection started with groups of aerial photographs of the San Francisco Bay area gathered during the San Francisco Bay Area regional study project, a cooperative effort of the USGS and the Department of Housing and Urban Development. Other donations of aerial photographs from completed projects have also been kept. In 1997, a decision was made to limit the collection to the San Francisco Bay area and to remove aerials of other areas of California and other states. Gaps in the coverage of the Bay area have been filled in as funds permit.

USGS employees may check out aerial photos for thirty days. Non-USGS users may check out aerials at the Circulation Desk for a two-hour loan to take them to a commercial copier or they may use the pay copier in the library. Loans to non-USGS users are not permitted for longer than two hours (no overnight loans). Aerial photos are not available on interlibrary loan.

## California Center (Menlo Park)

The Menlo Park Library has a California Center which brings together U.S. Geological Survey publications, California Division of Mines and Geology publications, California Dept. of Water Resources publications, reference works on California's history, general geology, general hydrology, and natural resources and California topographic map quadrangles in one location. Duplicate copies for checkout are kept in the regular stacks.

## **Career and Management Centers (Discontinued)**

Career and Management Resource Centers were established in 1991 in the Reston, Denver, and Menlo Park Libraries in response to Secretarial Initiatives encouraging Total Quality Management (TQM). Each center included a variety of materials relating to personal, career, and professional development. In addition to its USGS role, the Menlo Park Library was designated as a Department of the Interior (DOI) TQM Center and received depository items from DOI. (Minerals Management Service fulfilled this role in the Washington, DC area, and Bureau of Land Management in the Denver area).

These Centers received little use and, with the end of Departmental funding by 1999, were closed. The materials will be or have been integrated into the collection or given to personnel offices. Newer materials on subjects relating to career and management will be accepted as donations, but will be shelved in the regular collection.

## **Education Centers (Reston, Menlo Park, Denver)**

Geoscience Education Outreach Centers (GEO Centers) were established in 1991 in Reston, Denver, Menlo Park as a result of Departmental educational initiatives. These Centers received funds to provide earth science materials at grades 1-12 levels and resource materials including kits and collections for teachers and USGS volunteers in Outreach activities. Initiative money ceased during 1998. Some book money has been spent on education selections and a few materials added to the Menlo Park collection. Problems occurred routinely when loan policies had to be adjusted to permit loaning of materials to teachers and in getting materials returned. Retaining the Education Centers requires evaluation to determine whether to continue the collection or give the materials to another USGS office or to an outside educational facility to insure the materials are used. In 2001, the decision was made to hold the collections until new plans for educational programs are announced.

## Field Records (Denver)

The Field Records Library of the Denver Regional Library is an archival collection of materials and aerial photographs created or collected by USGS scientists during official project work. Most of the collection dates after the establishment of the USGS in 1879, but also includes earlier materials from the predecessor Hayden, Powell, and Wheeler and King exploration surveys of 1869-1879. Field records materials relating to Alaska are kept in the USGS Mineral Resources Team-Alaska office in Anchorage, Alaska.

The Field Records collection includes items such as field notes, field maps and sketches, plane-table sheets, unpublished maps, and project-related correspondence. The collection includes approximately 24,000 notebooks and files, 6000 map groups, and 80,000 aerial photographs staff.

Geologic Division scientists are responsible for depositing field record materials in the Field Records collection when they are no longer needed for project work or upon leaving the USGS. Currently, there is no provision for the acquiring and maintaining of field records in the collection in electronic format.

USGS agency records, such as field records, are officially archived by the National Archives and Records Administration (NARA). Field records are transferred from the collection to NARA when no longer needed for active reference use.

## **George F. Kunz Collection (Reston)**

The George F. Kunz collection of books on gems and minerals is housed in the Rare Book Room of the Reston library. This specialized material, acquired by the Library in the early 1930's, contains a number of important works, many of which predate the founding of the Survey. The collection includes archival material on gemology, gem trade, the lapidary arts, gem inventories, and accounts important to the provenance of named stones or specially identified gems, such as the "Hope Diamond". Because of the

value of this collection and its history, plans were made in 1999 to provide special bookplates and full cataloging for this collection. A few selected additions on the subject of gems will be made to the collection, as funds permit, to fulfill the original agreement to continue to build the collection. The materials selected to be added will be chosen on the rarity or uniqueness of the item and the specialized nature of the work in gemological or mineralogical folklore and history and the lapidary arts, information on George F. Kunz and his immediate family; and reprints of rare books held in the collection to reduce wear and use on the originals. The LSG library will make additional plans for the best maintenance and preservation of this collection in the preservation plan under development.

## **Photographic Library (Denver)**

The Denver Photographic Library maintains the archive for non-aerial USGS photography. The archival collection contains in excess of 300,000 photographs taken from 1868 to the present. Works by pioneer photographers such as Jackson, Hillers, O'Sullivan, Watkins, and Bearman are part of this collection representing the predecessor surveys of the 1870's.

Photographs taken while on official duty are the property of the U.S. Government and are in the public domain. The Geologic Division requires employees to deposit photos created in the course of official work in the Photo Library, either upon the completion of projects or when leaving the USGS. Photographs used in USGS publications are deposited in the collection. Photographs from other divisions are welcomed.

In 1999, photographs and slides in the Menlo Park USGS Library were sent to the Denver Photographic Library or given to NARA. A small number of albums obtained from non-USGS sources, such as landslide photographs from California agencies, remain in Menlo Park as part of the main collection and will be cataloged into the online catalog.

The library also holds 52,000 nitrate negatives and 18,000 glass negatives. The nitrate negatives represent a serious fire hazard and are being kept in special facilities until they can be transferred to another format and the negatives destroyed.

The Denver library is scanning photographs and will make these available by the web.or as CD-ROM products. Copies of photographs can be reproduced commercially for USGS employees or the public.

## Historical reprint collection [Proposed] (Reston)

The Library owns an historical reprint collection in old-fashioned file drawers. A proposal has been made to catalog and preserve this collection as a historical representation of one of the main ways scientific information was distributed to other scientists before the advent of electronic technology.

## Rare Books and Maps (Reston)

The Rare Book Room in the Reston library is a locked room with monitored humidity and temperature for best preservation of fragile publications. Users are allowed access to the rare materials under close supervision of the library staff. The use of gloves or other special requirements is imposed on users as needed to protect rare materials. Books will be cataloged into the Library online catalog to facilitate identification of these rare copies by other libraries.

Books published before 1815 will be housed in the Rare Book Room. Publications on legacy subjects published prior to 1865 will be added and books on non-legacy subjects will be considered on a case-by-case basis considering rarity, market value and pilferage potential.

Materials will be added to the Rare Book Room in order to preserve special USGS or precursor-Survey publications such as the Wheeler and Hayden surveys. Rare materials not owned by other libraries, or with two or less other library holdings listed in the OCLC catalog database or in the Library of Congress NUC-pre-1956, will also be considered for inclusion

Books can be added due to market value instead of age. Examples are books with fine illustrations or bookplates subject to pilferage because of their rarity, popularity, and well-known sales prices. Other examples are rare first editions, famous press editions in limited runs, and books known to be defaced, stolen, or vandalized in other libraries.

Maps published before 1900 will be added to the rare map collection, with some exceptions. Major exceptions are set maps with a large number of sheets, and/or sets that were published into the 20<sup>th</sup> century. Younger maps of high historical, known rarity, and/or monetary value will be placed in the room on a case-by-case basis. Reproductions of pre-1900 maps will not go into the rare map collection, even if those reproductions were made before 1900.

## CHAPTER 5 COLLECTION POLICY BY MEANS OF ACQUISITION

## **Exchange Program**

Since its beginning, the Library has carried on a program of international and domestic exchange of publications. The legislation that authorized the establishment of the U.S. Geological Survey(20 U.S. Statues at Large, 394-395 (1895) stated

"The publications of the Geological Survey shall consist of the annual report of operations, geological and economic maps illustrating the resources and classification of the lands and reports upon general and economic geology and paleontology...... Three thousand copies of each be published for scientific exchanges and for sale at the price of publications; and all literary and cartographic materials, received in exchange shall be the propery of the United States and form a part of the library of the organization."

The USGS Library Exchange Program has played a major role in building the System's extensive collections. This program continues to provide approximately 60% of the material added to the libraries. Exchange partners include:

U.S. Government agencies
Foreign and state geological surveys
State agencies
U.S., foreign, and international scientific societies
Colleges and universities - worldwide
Research institutes
Museums

The USGS library exchanges serve two major purposes:

- 1. Disseminate USGS publications to users in science and government, including foreign organizations.
- 2. Acquire publications for the USGS libraries in an expedient manner.

The Exchange Program was defined in the original legislation forming the U.S. Geological Survey. Publication exchanges can provide a significant avenue for the flow of information. Some publications not available from commercial sources may be obtained easily or only through exchanges. The exchange program, particularly as regards foreign organizations and government agencies, has enabled the library to collect materials published in small numbers, never widely distributed, and never reprinted. These unique publications, available for interlibrary loan to other libraries, are valuable supplements to the Nation's large library collections in major universities and government agencies. They support the research of government agencies, universities, and professional communities.

Exchanges are especially useful in overcoming economic barriers to foreign literature acquisition. In some cases, even where commercial avenues exist for materials acquisition, it may be more convenient to avoid the financial procedures of a monetary transaction. Payment details, such as purchase orders, invoices and vouchers, etc., are

largely eliminated with direct exchanges. In established exchanges, materials may be received more quickly when delivered on an automatic basis shortly after publication. However, exchanges are not a panacea: not all materials can be obtained through exchange and exchanges are not "free". A wisely managed exchange program, which matches the needs and resources of each partner, can play a useful role in facilitating the transfer of research information.

Exchange record-keeping assures the maintenance of equitable balances in exchange based on some measurable factor, i.e. one journal title for another, piece-for-piece etc. But exchange partnerships rarely balance out evenly. It is more productive to stress the development of continuing working relationships that, over time, bestow mutual benefits

The Library's interest in international exchanges and foreign materials reflects the interests of USGS scientists participating in international programs of the Survey or conducting research related to the work of global hazards. With financial woes and requirements to recover costs, many agencies are cutting back partially or entirely on exchange publications. The Survey itself, as it moves to electronic publications, has a decreasing number of products for exchange. The eventual end of most exchange programs will occur. Until that time, the Exchange Program allows the tracking and acquisition of newly published materials that are extremely difficult to obtain after their initial distribution.

## Gifts, Donations

By law, the USGS Library Services Group cannot solicit donations, but donations are appreciated. The USGS accepts gift materials with the understanding that they will not necessarily be added to the Library's collection. Gifts will be evaluated using the same standards of selection applied to other materials. Gifts not added to the collection will be offered to other USGS libraries, to public and academic libraries, and to library users depending on value and condition. The Library also accepts gifts of money for the purchase of books (selected according to collection development policy) as memorials or in honor of persons and events. Once a gift is accepted, it becomes the property of the Library to be used or disposed of in accordance with Library policy.

The library does not appraise gifts. We will supply letters for tax or other purposes affirming that books or other materials were donated. Books donated for memorials and as special donations will be marked with gift bookplates and letters of appreciation will be sent to donors.

Gifts will not be accepted on "indefinite loan", returned after accessioning, or shelved in a special area. The Library will determine the classification, housing, and circulation policies for all gifts.

## **Government Printing Office Depository Library Program**

The Reston Library, located in the 10th Congressional District, was designated a Selective Federal Depository Library in 1963. In 1962, the Menlo Park Library, in the 12th Congressional District, had been granted the same status. Depository Collections are maintained in accordance with the requirements defined in the "Instructions to Depository Libraries", "Guidelines for the Depository Library System", and the "Federal Depository Library Manual".

Materials are selected in order to meet the scientific and government information needs of the USGS user community. Depository government publications are accessible for public use, are protected and maintained in accordance to regulations, and integrated into the library collection. Subject categories are chosen to meet the scientific and government information needs of the USGS user community and are reviewed annually.

Selections include selected publications of these agencies:

U.S. Dept. of Agriculture (Soil Conservation Service)

U.S. Department of Commerce (National Oceanic and Atmospheric Administration)

U.S. Dept. of Defense (Corps of Engineers, National Imagery and Mapping Agency (formerly Defense Mapping Agency))

U.S. Environmental Protection Agency

National Aeronautics and Space Administration

U.S. Dept. of the Interior

Selected Congressional publications

Statutes, Code of Federal Regulations, etc.

The importance of the GPO Depository Program will quickly dwindle as government publications become accessible to the public through the internet.

## Basic duties of the library as a GPO Selected Depository are:

- Make all deposited materials accessible for in-library use.
- Keep publications in order and in good condition.
- Maintain records to the piece level on depository materials
- Identify materials received with stamps indicating Depository status
- Discard or selectively retain only certain types of materials, i.e. replace older editions with new editions, etc.
- Identify the library prominently as a depository library
- Answer questionnaires on usage as needed.
- Complete the annual survey for items to be added or discarded and change categories as fits library overall program.
- Undergo an inspection by GPO every few years.

Recommended (but not required) conditions of a GPO Selected Depository collection 1.Use of Supt. of Documents classification system

The USGS libraries use the USGS classification system.

2. Providing reference one-on-one help

USGS libraries provide full reference assistance.

3. Circulation or non-circulation

Materials are circulated according to circulation rules for other items.

The difference between a federal library as a depository and academic and public libraries as depositories are:

- 1. The federal libraries do not operate under a regional depository.
- 2. Federal libraries send discarded materials to the Library of Congress if the LC accepts the material and do not advertise items to be discarded in a regional list for selection by other depository collections.

#### CHAPTER 6 COLLECTION POLICY BY FORMAT TYPE

## **Audiovisual materials**

Audiovisual materials, including films, videos, photographs, are acquired in subjects collected at the research and comprehensive levels. Videos are incorporated into the Library's main collection, selected according to subject criteria of the collection policy, cataloged and classed as other publications, and will be loaned according to established policies for other formats.

## **Environmental impact statements**

All USGS-produced environmental impact statements (EIS) and similar reports are collected. Other EIS are collected if they contain significant material of geological, biological or hydrological interest. Copies are collected in each library according to geographical or subject interests of the users. Drafts are kept unless completely superseded by a final statement. A record of decision is collected if the final or draft EIS is retained.

Other materials similar to EIS reports are kept according to regional interests and the inclusion of geological, biological, or hydrological information including wilderness plans, proposed oil and gas lease sales, environmental impact analyses, Superfund reports (annual reports, implementation plans, operations and maintenance manuals, public participation plans, quarterly reports, remedial action plans, remedial design reports, remedial investigation/feasibility study plans, risk assessments, semi-annual reports), start-up reports, local engineering geology reports, siting reports, environmental economic and financial assessments, resource development plans, and resource management plans.

## Field trip guidebooks

Guidebooks from geological field trips are collected and solicited from societies when known to be available. Due to their unofficial and ephemeral nature, guidebooks are seldom available from any other source after trip completion. Field trip guidebooks from meetings of national and international geologic organizations are collected comprehensively. Guidebooks of university geology groups, geological clubs, and regional geological associations are collected according to regional interests.

## Juvenile materials

Materials intended for children are not normally collected.

## **Laboratory manuals**

Laboratory manuals written to accompany specific textbooks or to be used in school courses are not retained. Laboratory handbooks and manuals on laboratory safety or techniques are retained only if current and relevant to USGS research practices.

## Legal materials

The USGS Library System limits the acquisition of legal materials to compilations of federal statutes and codes until available electronically. State and local regulations and laws, contracts, agreements, etc. are not kept. Compilations of law on earth science subjects, such as oil and gas laws, sea law, boundary law water rights, mining laws are kept, but users are advised that the compilations may not be up-to-date. No extensive attempt is made to keep these compilations up-to-date.

Treaties are not kept except for major, historically important treaties on subjects such as polar research, water rights, national and state boundaries, and other geographically related treaties. Texts relating history of legislation or interpretations of laws relating to USGS research subjects such as copyright laws, development of water law, changes in land rights, etc. are kept.

## **Microforms**

The library has a large set of doctoral theses on microfilm. Government publications from other agencies are often received on a distribution basis only on microform. Microform is known as a permanent archive for materials, but the permanency of electronic formats is not known.

Large collections of materials used infrequently can be successfully stored as microforms in minimal space. This format is discouraged for high demand items, since reading microforms is more difficult than reading paper copy. Ideally microforms should be analytically cataloged and classed as are other publications, but they are often treated only as a set.

## **Newspapers**

Newspapers are collected only if of substantial or historical interest to geology or other interests of the Survey. Microfilm is often the best format for large newspaper files because newsprint disintegrates quickly.

## **Patents**

Patents are acquired for the user only when requested and are not retained by the library.

## **Portraits and Artwork**

Photographic portraits are collected in the Photographic Library in Denver. Works of art, portraits, and non-traditional materials offered to the Library will be considered for acceptance on their individual merits. Appropriate items will be referred to the USGS museum curator.

## Press releases

All press releases issued by the USGS are collected. Other press releases are not.

## Rare books

Rare or historical books or magazines are acquired when of substantial interest and within scope. Early writings are often essential, such as those on paleontology and travels of early geologists. Because of the cost and limited use of truly rare books, the acquisition of these works will rarely be acquired by purchase, but will be accepted as gifts.

## Reprints

The Library does not generally collect reprints. However, individual reprints may be kept when they represent material not available in other form. Published collections of reprints on a specific topic are acquired when within scope and not substantially duplicating materials already held by the Library.

## **Textbooks**

Textbooks are collected selectively. A few representative titles are selected for the main collections in each area of collection emphasis, particularly if they present information not available in another form.

#### **Theses**

Copies of dissertations are ordered in microfiche or paper for the library collection upon request. Gift copies are kept when complete and well reproduced, but no systematic attempts to acquire theses will be made.

## **USGS Publications**

All USGS Publications in all series and all formats are collected.

## **Other**

Generally excluded from the collection are: clipping services, "coffee table books" (large books consisting chiefly of illustrations), fiction and other forms of imaginative literature, forms and form letters, time-related unpublished administrative documents such as contracts, manuals of operation, etc., and handbooks related to a particular edition or computer software, a specific model of computer hardware, or specified brands of machines or instruments.

#### CHAPTER 7 MAP COLLECTION DEVELOPMENT

## <u>Collection Development – Maps</u>

These are general guidelines for determining what to collect in the individual libraries, not absolutes. They can be used for local collection decisions, and for determining which library should get an item when it is not being kept locally.

There are three main attributes of maps to consider when making collection decisions, 1) geographic area of coverage, 2) subject, and 3) scale. To gauge the "worth" of a map for a particular library, combine the values in the subject and geographic tables. The higher the "score" the greater the value for that location. This same "scoring" method can be used to determine which library could use extra copies.

## **Levels of Collection Intensity**

It is assumed that maps collected at a given level include the maps at the lower levels as well (i.e. level 3 collections include level 2 and level 1 maps).

5 = all scales

4 = large scale (1:24,000 to 1:70,000)

3 = intermediate scale (1:75,000 to 200,000)

2 = country/state-wide (about 1:200,000 and smaller {less detailed})

1 = continental (about 1:5 million and smaller {less detailed})

0 = not collected

These scale ranges are relative to the size of the geographic locale covered, not absolutes. Example: A 1:50,000 scale map of all of Rhode Island would be a category 2 (country/state-wide) map. Also, in some situations it is better to think of these numbers as relative levels of "interest" instead of links to scales, particularly in regards to subjects.

## **Subject Values**

Subject	Class No.	Den	Flag	Menlo	Res
Administrative divisions	059	2	1	1	2
Aeromagnetism	296	4	4	4	4
Agriculture	94	2	1	2	2
Airlines	065.3	0	0	1	1
Air-photos (not photo maps)	500.1	0	0	4	0
Altitudes (measuring)	752	2	1	1	1
Base maps	Blank	2	2	2	2
Bathymetric maps (ocean bottom)	536	2	1	3	2
Beaches	521	1	1	4	2
Bottom deposits (erosion, sedimentation, etc.)	213	3	1	4	4
Bottom deposits (marine)	536	3	1	4	4
Boundary surveys	755	2	2	2	2

Subject	Class No.	Den	Flag	Menlo	Res
Civil war maps	07	0	0	1	2
Climate	512	3	2	2	2
Coal	461 to 463.5	4	1	2	3
Coast lines	521	1	1	4	2
Congressional districts	Blank	2	2	2	2
Construction materials	479	2	2	2	3
Continental drift	311	4	4	4	4
Correlation charts (stratigraphic correlation)	315	4	4	4	4
Cross sections ( structural geology)	26	4	3	3	4
Deserts	548	3	3	4	3
Distances	75	1	1	3	1
Drainage	555	4	3	4	4
Drift, glacial	25	2	3	4	4
Drift, continental	311	4	4	4	4
Earthquakes	24	3	3	5	4
Erosion	213	4	4	4	4
Eskimos (anthropology)	91	0	0	3	1
Evaporation	782	2	2	4	2
Exploration	502	1	1	2	1
Faults	276	4	4	4	4
Floods	552	4	3	3	4
Forests	95	2	3	3	3
Formations	319 to 354	4	4	4	4
Fuels	58	3	1	2	3
Gas, natural	467	4	1	2	3
General maps	Blank	2	2	2	2
Geochemistry	298	4	1	3	3
Geodesy	740	3	1	3	3
Geologic age	315	4	3	4	4
Geologic eras (paleobotany)	690.1-690.4	4	2	4	4
Geologic eras (paleogeography)	360-366	3	2	4	4
Geologic eras (paleontology)	680-689	3	2	4	4
Geologic eras (stratigraphy)	319-354	3	2	4	4
Geologic map bibliography	308.4	5	5	4	5
Geologic map indexes	308.4	5	5	4	5
Geologic map lists	308.4	5	5	4	5
Geologic time	315	4	4	4	5
Geology	2	5	5	4	5
Geomagnetism	296	4	4	4	4
Geomorphology	5	4	4	4	4
Geophysics	295	4	4	4	4
Geothermal resources	23	2	3	3	3

Subject	Class No.	Den	Flag	Menlo	Res
Geysers	23	2	3	3	3
Glacial deposits	25	4	4	4	5
Glacial drift	25	4	4	4	5
Glacial structures	25	4	4	4	5
Glaciology	25	2	3	4	5
Glaciers	25	2	3	4	5
Gravity	297.5	3	2	2	4
Ground conductivity	295	3	2	4	4
Groundwater	49	4		4	5
Highways	772	0	0	2	2
History	07	0	0	1	1
Horizontal control (surveying)	752	1	0	2	2
Hot springs	23	2	2	3	3
Hydrogeology	49	4	4	4	5
Hydrologic units	78	4	4	4	4
Hydrology	78	4	2	4	4
Igneous rocks	17	4	1	4	5
Indian lands	Blank	2	1	2	3
Indians (anthropology)	91	1		1	1
Karst	547	3	1	2	4
Lake sediments	213	4	4	4	4
Landforms	54	3	3	3	3
Land classification	585.5	3	3	3	3
Land use	585.5	3	2	2	2
Landslides	245	4	4	4	4
Leveling	75	1	1	2	2
Lithology	153 to 155	4	1	3	4
Loess(soils)	941	3	3	3	4
Loess (weathering)	211	3	3	3	4
Magnetic anomalies	296	4	4	4	4
Magnetism, Terrestrial	296	4	4	4	4
Map bibliography	508.4	2	2	2	2
Map indexes	508.4	2	2	2	2
Map lists	508.4	2	2	2	2
Marine resources	537	2	2	3	3
Marine sediments	536	2	2	3	3
Meridians (astronomy)	732	0	1	2	2
Meridians (general navigation)	749	1	1	2	2
Meridians (latitude and longitude)	747	2	1	2	2
Metals	43	3	2	2	4
Metamorphic rocks	19	4	4	4	4
Metropolitan areas	065.3	0	0	2	2
Military maps	Blank	0	0	1	1

Subject	Class No.	Den	Flag	Menlo	Res
Mineral resources	4	4	4	4	4
Mines	42	4	4	4	4
Mining	42	4	4	4	4
National forests	585.7	2	2	2	2
National parks	585.7	2	2	2	2
Natural resources	58	3	2		3
Navigation charts (celestial)	732	0	2	2	2
Navigation charts (general)	749	1	2	2	2
Navigation charts (longitude and latitude)	747	2	2	2	2
Neotectonics	21	4	4	4	4
Non-metals	44	3	3	3	4
Ocean currents	531	1	1	3	2
Oil	467	4	1	3	3
Oil and gas pipelines	467.7	2	1	3	2
Oil shale	467	4	1	3	3
Outline	Blank	2	1	2	2
Paleogeography	36	3	3	3	3
Paleotectonics	36	3	3	4	4
Petroleum	467	4	3	3	3
Petroleum pipelines	467.7	2*	1	3	2
Permafrost	256.1	3	2	2	3
Photo maps (not aerial photos)	500.1	2	2	2	3
Physical divisions	Blank	3	3	3	3
Physiographic diagrams	54	3	3	3	3
Pipelines (general)	776	1	1	3	
Pipelines (oil and gas)	467.7	2	1	3	
Political divisions	Blank	2	1	1	2
Population (cities and regions)	065.3	0	0	2	2
Population (environmental aspects)	585.4	1	0	2	2
Postal zone	Blank	0	1	1	1
Potentiometric surface (groundwater)	49	4	4	4	4
Power resources	58	3	3	3	3
Public lands	585.5	3	3	3	3
Radioactive waste disposal	795.3	3	3	4	3
Radioactivity	815.5	2	2	3	3
Railroads (transportation)	772	1	1	2	2
Rainfall	781	3	3	3	3
Recreational area	585.7	2	2	2	2
Redevelopment (urban renewal)	065.3	0	0	2	2
Relief, Shaded	54	3	3	3	3
River sediments	213	4	4	4	4
River surveys (rivers & streams)	552	4	4	4	4

Subject	Class No.	Den	Flag	Menlo	Res
River surveys (stream measurements)	783	4	4	4	4
River surveys (watershed studies)	552	4	4	4	4
Roads (transportation)	772	0	1	2	2
Rock analysis	155	4	3	3	5
Runoff	781	4	3	3	5
Satellite photos/imagery	500.1	0	2	3	0
Satellite photo maps	500.1	2	2	3	3
Sedimentary rocks	18	5	4	4	5
Sediments (lake)	213	4	4	4	4
Sediments (marine)	536	3	4	4	4
Sediments (river)	213	4	4	4	4
Sediments (unconsolidated)	213	4	4	4	4
Seismic zones	24	3	3	4	4
Seismicity	24	3	3	5	4
Seismology	24	3	3	5	4
Shaded relief	54	3	3	3	3
Shore lines	521	2	2	4	4
Snow cover	256	2	2	2	3
Snow surveys	781	4	3	4	3
Soil chemistry	892	3	2	4	3
Soil formation	518	3	2	4	3
Soil mechanics	768	3	2	4	3
Soil moisture	944	2	2	4	3
Soil science	941	3	2	4	3
Soil surveys	941	3	2	4	3
Stratigraphic cross sections, correlations	315	4	4	4	5
Stratigraphy	319	4	4	4	5
Structural geology	26	4	4	4	5
Subsidence	248	3	3	4	4
Surface water	78	4	4	4	5
Surficial geology (structural geology)	26	4	4	4	4
Surficial geology (sediments)	213	4	4	4	4
Tectonics	21	4	4	4	5
Terrestrial magnetism	296	4	4	4	4
Tidal waves	533	1	1	3	3
Time zones	Blank	1	1	1	1
Topographic drawing	753	2	1	3	3
Topographic maps	5	3	3	3	3
Trails (transportation)	772	1	1	2	2
Transportation (includes highways, railroads, roads, and trails)	772	1	1	2	2
Triangulation	743	2	1	2	3
Tsunamis	533	1	1	3	3

Subject	Class No.	Den	Flag	Menlo	Res
Underground water	49	4	3	4	5
Uplift (geology)	21	4	4	4	4
Urban renewal	065.3	0	0	1	1
Vegetation	92		1	3	3
Vertical control (surveying)	752	2	2	2	2
Vertical movements (subsidence)	248	3	3	4	4
Vertical movements (uplift)	21	4	4	4	4
Volcanoes	22	3	3	4	4
Waste disposal	799.3	1	0	4	3
Waste disposal (industrial)	799.5	1	0	3	3
Waste disposal (radioactive)	795.3	1	0	4	3
Water (hydrological studies)	78	4	4	4	4
Water (rivers, lakes, oceans, etc.)	552 to 558	4	4	4	4
Water, Underground	49	4	4	4	4
Water analysis	796	4	4	4	4
Water qualitiy (groundwater)	497	4	4	4	4
Water quality (surface)	797	4	4	4	4
Water table	49	4	4	4	4
Watersheds (boundaries)	78	3	2	3	3
Watersheds (studies)	552	4	2	4	4

# Geographic Values

Geographic Region	Class No.	Den	Flag	Menlo	Res
World	(000)	1	1	2	2
Space	(020) to (049)	1	2	2	2
Oceans	(050) to (098)	1	1	2	2
Antarctic	(096)	1	1	2	2
Arctic	(090)	1	1	3	2
Indian	(070	1	1	2	2
Pacific	(080)	1	1	3	2
North America	(099)	2	2	4	4
Canada	(100)	2	2	4	4
Eastern Prov.	(110) to (150)	2	2	3	4
Central Prov.	(160) to (165)	4	2	3	3
Western Prov.	(170) to (188) about	3	2	4	3
United States	(200)	5	5	5	5
Eastern Region	(210) to (255) about	3	2	4	5
Central Region	(261) to (272) about	5	3	4	4
Western Region	(273) to 289) about	4	4	5	4
Mexico	(300)	4	3	4	3
Baja Region [NW?]	(320)	3	3	4	3
Boarder States	(310)	4	4	3	3
Other States	(330) to (370)	4	3	3	3
Central America	(380)	4	1	3	4

Geographic Region	Class No.	Den	Flag	Menlo	Res
West Indies	(390)	3	1	3	4
South America	(400) to (499)	4	1	3	4
Europe	(500) to (599)	2	1	3	4
Asia, except for Middle and Near	(600) to (649) &	2	1	4	2
East	(690-(699)				
Asia, Middle and Near East	(650) to (689)	2	1	3	4
Africa	(700 to 799)	2	1	3	4
Australia, Tasmania and N.Z.	(800) to (899)	2	1	3	4
Oceania and Malay Arch.	(900) to (970)	2	1	3	4
Polar Regions	(980) to (995)	2	1	3	4

# **USGS Regions**

Eastern	Central-	Western
Reston - 5	Demver - 5	Menlo Park - 5
Alabama	Arkansas	Alaska
Connecticut	Colorado	American Samoa
Delaware	Iowa	Arizona
Florida	Kansas	California
Georgia	Louisiana	Guam
Illinois	Minnesota	Hawaii
Indiana	Missouri	Idaho
Kentucky	Montana	Nevada
Maine	Nebraska	Oregon
Maryland	New Mexico	Utah
Massachusetts	North Dakota	Washington
Michigan	Oklahoma	*any Pacific island
Mississippi	South Dakota	
New Hampshire	Texas	
New Jersey	Wyoming	
New York		
North Carolina		
Ohio		
Pennsylvania		
Puerto Rico		
Rhode Island		
South Carolina		
Tennessee		
Vermont		
Virgin Islands		
Virginia		
Washington, D.C.		
West Virginia		
Wisconsin		

## **Canadian Regions**

Eastern Reston - 5	Central Denver - 5	Western Menlo Park - 5
Franklin District	Manitoba	Alberta
Keewaitin District	Saskatchewan	British Colombia
Newfoundland	Nunavut	McKenzie District
Nova Scotia		Northwest Territories
Ontario		Yukon Territories
Prince Edward Island		
Quebec		

## **Mexican Regions**

<b>Border States</b>	Vestern or Northwestern	
Denver - 5		
Chihuahua	Baja California Nord	
Coahuila	Baja California Sud	
Nuevo Leon	Sonora	
Sonora		
Tamaulipas		

## Copies Kept

These are general guidelines. More copies than are indicated may be desirable, depending on subject, geography or other circumstances. In general, second copies should not be retained in one library until the initial needs of the other libraries are satisfied.

## Denver

USGS Maps: 2 circulating and 1 reference for Central Region

Local US, etc., at all collection levels: 1 copy

Level 1: 1 copy Level 2: 1 copy Level 3: 1 copy

## Flagstaff

**USGS Maps:** 1 circulation and 1 reference copy

Local U.S. Region maps, at all collection levels: 1 copy

**Levels 1-5:** 1 copy

Menlo Park

**USGS Maps** - 1 circulation and 1 reference copy

Local U.S. region maps, at all collection levels - 1 copy

Menlo Park has a California room where duplicate copies of topographic, California Division of Mines and Geology and Dibblee maps are kept for quick access.

Level 1 - 1 copy Level 2 - 1 copy **Level 3, 4, 5** - 1 copy

Reston

USGS maps – 2 circulating and 1 reference copies Local U.S. Region maps, at all collection levels – 2 copies

Level 1-2 copies

Level 2 – 2 copies

**Levels 3, 4 and 5** – 1 copy

#### CHAPTER 8 COLLECTION SPECIALTIES BY REGION

As stated under "General Policies -- Regional Subject Interests" on page 7 of this plan, the Library System will locate copies of publications geographically closest to the majority of scientists who use them. The regional libraries have also developed subject specialties due to past research emphasis in their regions.

## **Subject Specialties**

#### Reston

Worldwide interests, collecting in all areas of earth science. Specialties include geological surveys of the world, minerals information and statistics, and maps and mapping. Collection includes extensive holdings in the related sciences, rare books, foreign texts, and the legacy collection of older scientific publications.

#### Denver:

Energy resources, geochemistry, geomagnetism, geophysics, ground and surface water, minerals and mining, water quality, water use

## Flagstaff

Astrophysics, astrogeology, comets, lunar geology, meteorites, planets

#### Menlo Park

Aquatic ecology, estuarine ecology, engineering geology including soil mechanics, marine geology, ocean pollution, natural hazards including earthquakes, floods, landslides, subsidence, and volcanoes, western water supply and water quality, Western mining history

## **Geographic Specialties**

#### Reston (Eastern)

*U.S.:* Alabama, Connecticut, Delaware, DC, Florida, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, Wisconsin *Canada:* Newfoundland, Nova Scotia, Ontario, Prince Edward Island, Quebec, Keewatin and Franklin Districts.

*World:* Europe, Middle East, Africa, Atlantic Ocean, Atlantic lands, the Caribbean area, and polar regions.

# Denver (Central)

*U.S.*: Arkansas, Colorado, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming

Canada: Central Provinces: Manitoba, Nunavut, and Saskatchewan

*Mexico*: All states

World: Central and South America, Gulf of Mexico, Gulf of Mexico countries

## Menlo Park (Western)

*U.S.*: Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Utah Washington, U.S. Pacific possessions

Canada: Western Provinces: Alberta, British Columbia, the Yukon Territories,

and the McKenzie District

Mexico: Sonora, Baja California

World: Asian Pacific Rim, Pacific Ocean, Oceania, Australia, Arctic and

Antarctic areas

# Flagstaff (Western)

*U.S.:* Arizona

Mexico: Border areas of the Northern states: Chihuahua, Coahuila, Nuevo Leon,

Sonora, and Tamulipas

#### CHAPTER 9 COLLECTION POLICY BY CORE SUBJECTS

The USGS LSG Libraries comprehensively collected geological literature since the founding of the USGS in 1879. This legacy collection represents the largest collection of earth science literature in the world. The library system will collect in the traditional fields of earth sciences maintaining continuity in these subject areas, but will concentrate on publications at the highest theoretical levels and will not attempt to develop a strong collection of earth science textbooks, technique manuals, and popular materials available in other U.S. libraries. Collecting will be concentrated on subjects relating to current multi-disciplinary research of the USGS on environmental and hazard problems and natural resources. The library will expand collecting in areas previously not covered for scientific specialties new to the USGS.

## **Legacy Collection Subjects**

### Petrology:

Petrography, structural petrology, igneous, sedimentary, carbonate, metamorphic and metasomatic rocks

### Mineralogy:

Crystallography and optical mineralogy, descriptive mineralogy, determinative mineralogy, clay and clay minerals

# General geology:

Regional geology (especially North America), publications of geological societies, government geological surveys, and geological conference, submarine geology, isotope geology, erosion, weathering, sedimentation, sediment transport, geological structures, faulting and folding, orogeny, Earth origin, Earth crust, mantle, and core, tectonics, neotectonics, geophysics, gravity, heat flow, geomagnetism, surficial processes Historical geology:

Paleoenvironments, paleoclimatology, paleoecology, paleogeography, stratigraphy, stratigraphic units, chronostratigraphy, geochronology, geologic eras, invertebrate paleontology, micropaleontology, trace fossils, paleobotany, palynology Physical geography and geomorphology:

Coastal zone, continental shelf and margins, oceanography, ocean chemistry and physics, landforms, caves, karst, and sinkholes, deserts, arid zones, mountains

## **Current Core Subjects**

#### Hydrology, climatology, meteorology,

Groundwater, surface water, water use, regional water resources, hydrogeology, rain, snow, glaciers and glaciology, ice, regional climate, climate change, sea level change, water flow, stream measurements

## Natural hazards:

Earthquakes, volcanoes, tsunamis, floods, drought, landslides, debris flows, volcanoes, storm-induced environmental damage, tsunamis, hazard assessment, hazard reduction, vulnerability maps and databases, prediction and warning systems for natural disasters, nuclear plant and waste disposal siting

# Applied geology

Engineering geology, military geology, coastal engineering, environmental geology, urban geology, land use

# Environmental pollution

Acid deposition, environmental toxicology, mining and environment, contaminants, analytical environmental geochemistry, radon, oil seeps, and other naturally occurring contaminants, trace elements, water quality, ground water contamination, water analysis, soil analysis, atmospheric transport of dust and contaminants, waste disposal, radioactive wastes

### Mineral resources and industries

Economic geology, conservation of natural resources, mineral reserve estimation, energy resources, technology, exploration and mining of nonrenewable resources, ore deposits, strategic reserves, radioactive minerals, salt, evaporites, construction and decorative earth materials, strategic reserves, marine mineral resources, mineral statistics

## Applied geography

Regional mapping, mapping by satellites, remote sensing methods and applications, photogrammetry, geodesy, geospatial analysis, GPS (Global Positioning Systems) applications, GIS (Geographic Information Systems) applications, digital cartography Physical sciences

Chemical analytical techniques, physical chemistry, thermodynamics, surface chemistry and physics, gas and liquid flow

# Engineering

Rock mechanics, soil mechanics, fracture mechanics, stress failure

## Extraterrestrial geology:

Lunar studies, planets, meteorites, planetary science

#### Ecosystems

Estuaries, wetlands, aquatic ecology, limnology, riparian studies, watersheds, grasslands, forests

## **Biology**

General life processes, anatomy and physiology, taxonomy, population studies, biogeography, evolution, extinction, biotic assemblages, biodiversity, biogeography, marine biology, coastal zone life

#### Applied biology:

Fisheries, aquatic resources, alien species, endangered animals, game and wildlife management, animal vectors, animal health, human health and the environment, disease surveillance

# Soil science

Soil properties and components, morphology, genesis, classification, soil geography, permafrost, weathering, soil-water interactions

## **Expanded subject coverage**

Due to the addition of the mineral statistics group and the Biology Discipline to the U.S. Geological Survey, the coverage of the following subjects, previously generally omitted from the collection, will be expanded:

- ♦ Mineral technology, metallurgy, mine company reports, mining, mineral extraction
- ♦ Aquaculture and commercial fisheries
- ◆ Taxonomy, classification, anatomy, physiology, and life histories of plant and animal groups by classes, orders, etc. usually not to the species level.

#### CHAPTER 10 COLLECTION LEVEL RANKINGS OF SUBJECTS

#### **Collection Codes**

For each subject, a code is given to indicate the collecting intensity of each of the LSG libraries: Reston(R), Denver(D), Menlo Park(M), Flagstaff(F).

The levels of collecting intensity are:

## 0. Out of scope:

The Library does not collect in this area.

#### 1. Minimal level

A subject area which is merely recognized with few selections beyond very fundamental reference tools.

## 2. Basic level

Publications are selected which serve as an introduction to the subject, define the subject, and indicate the varieties of information available elsewhere. Publications include major dictionaries and encyclopedias, selected editions of important works, and historical surveys, important bibliographies, and a few major periodicals in the field. It is generally limited to the English language.

## 3. Study level

Publications are selected to support sustained independent study; that is, which is adequate to maintain knowledge of a subject required for limited or generalized purposes, of a less than research intensity. Publications include a wide range of basic monographs, a selection of representative journals, and the reference tools and fundamental bibliographic apparatus pertaining to the subject. It is generally limited to the more commonly known languages.

#### 4. Research level

Publications selected include the major source materials required for independent research, including materials in any language containing research reporting, new findings, scientific experimental results, and other information useful to researchers. It also includes all important reference works and a wide selection of specialized monographs, as well as a very extensive collection of journals and major indexing and abstracting services in the field.

#### 5. Comprehensive level

A subject for which a library endeavors to include all significant works in any language, for a necessarily defined and limited field. The aim, if not the achievement, is exhaustiveness. Materials of very brief or trivial interest, such as commercial promotional literature, notices, or society newsletters may be excluded.

USGS LIBRARY COLLECTION DEVELOPMENT POLICY								
TABLE OF SUBJECTS AND LIBRARY COLLECTING LEVELS SECTION 1 - GENERAL WORKS								
	SECTION 1 - GENERAL WORKS	Reston	Denver	Menlo	Flag			
001	Govt. pubs not classed elsewhere	1	1	1	11115			
002	Exposition pubs not classed elsewhere	0	0	1				
005	Education: schools and colleges	1	1	1	1			
008	Photographs	0	0	1				
009	Miscellany	0	0	1				
010	Periodicals not classed elsewhere	0	0	1				
020	Societies, universities, observatories	1	2	1	2			
025	Museums	1	2	1	2			
030	Science general works, history of science	2	1	2	2			
030.3	Science and Society	2	1	2	-			
030.5	Scientific labor force	1	1	2				
031	Scientific congresses	2	1	3				
032	Scientific institutions	1	1	3				
035-035.1	Scientific instruments and microscopy	1	2	2	1			
035.4	Computer science	1	1	2	3			
035.4	Congresses	0	1	1	3			
035.5	General works	+						
035.6		1	1	3				
	Encyclopedias	1	1					
035.7	History	0	0	2				
037 – 037.9	Computer simulation, math models	1	1	2	-			
039 - 039.8	System analysis and design	1	2	1	2			
040 – 040.9	Information storage and retrieval	1	1	1				
041	National bibliography	0	1	1	1			
042 -042.919	Subject bibliography	3	1	1	1			
043	Author bibliography	1	1		_			
044	Serial indexes	2	2	1	2			
045-046	Library science	2	1	1	1			
045.8	Map librarianship	2	2	2				
047	Archives, archive collections	1	2	1				
048	Catalog of grants, projects, etc.	1	1	1				
050	General dictionaries	22	2	1	2			
051	Bilingual and polyglot dictionaries	2	2	2	1			
051.1	Technical dictionaries	2	2	1				
051.2	Abbreviations, acronyms	2	2	1				
052	General encyclopedias	2	2	3	2			
053	Grammars, language manuals	1	1	1	0			
054	Logic	0	1	1				
055	Statistical yearbooks, almanacs	2	2	2	2			
056	Membership directories	2	2	2	2			
057	Organization directories	2	2	2	2			
059	Law	1	0	2				
059	Law, specifically copyright	1	2	1	1			
065	Sociology, economics	1	0	1				
065.1	Business administration, management	0	0	1	1			
065.2	Labor force, employment	1	0	1				
065.3	City and regional planning	1	0	1				
065.4	Health, safety	31	2	2	2			
065.5	Education Education	21	1	2	2			
065.6	Welfare	0	0	1	-			
067	Statistics, graphics (general works)	1	1	11	2			

		Reston	Denver	Menlo	Flag
070	History, ethics, psychology	1	0	1	
075	Ethics of science	1	1	2	1
075	Relation of psychology & natural sci.	0	0	1	1
080 - 089	Biographies	2	1	2	2
090	Essays, collections, miscellany	1	1	1	
095	Miscellaneous manuscript collections	0	1	1	
	SECTION 2 - MINERALOGY AND PETROLOG	ŝΥ			
		Reston	Denver	Menlo	Flag
	MINERALOGY			3	
101	Congresses	5	2	3	
103	Texts, general treatises	4	1	3	
104	Elementary, popular, older works	3	1	3	
105	Catalogs, tables	3	1	3	
106	Nomenclature and classification	5	3	3	
107	History	4	1	3	
108	Technique	4	2	3	
109	Essays, collections, miscellany	3	2	3	
110 - 113	Crystallography & optical mineralogy	3	3	3	2
115 - 119	Determinative mineralogy	4	4	4	3
120 - 128	Descriptive mineralogy	5	4	4	3
130	Meteorites	4	2	3	3
135	Pseudomorphs	5	2	3	
140	Experimental investigations	4	1		
150 – 150.9	Petrology	5	4	4	3
153	Physical properties of rocks	5	4	3	
155	Rock analysis	5	4	3	
160	Determination of minerals in rocks	5	4	3	
165	Structural petrology, thin sections	4	4	3	
170	Igneous & volcanic rocks	5	4	4	3
180	Sedimentary and carbonate rocks	5	4	4	3
180.3	Paleopedology	4	3	3	2
185	Crystalline rocks	5	4	3	
190	Metamorphic and metasomatic rocks	5	4	4	3
S	SECTION 3 - GENERAL, STRUCTURAL AND DYNA	MIC GEO	DLOGY	•	
		Reston	Denver	Menlo	Flag
201	Geologic congresses	5	4	3	
202	Collections of writings	4	3	3	
203	Geological texts (college)	3	2	3	
203	Treatises, regional studies	4	2	3	
203(050)	Submarine geology	4	2	4	2
203(050)	Submarine topography	3	2	4	1
203.2	Earth sciences, multidisciplinary	4	4	2 or 5	
203.3	Engineering geology	4	4	2 or 5	
203.4	Effects of underground explosions	1	1	2	
203.5	Military geology	4	2	3	0
203.6	Environmental, urban geology	4	2	4	2
203.7	Nuclear geology, isotope geology	4	3	4	
204	Elementary texts, popular, older works	3	1	3 or 4	
205	Catalogs	2	2	2 or 3	
205	Encyclopedias, glossaries	5	2	3	
206	Nomenclature, classification	5	4	1	
	,	•		•	

		Reston	Denver	Menlo	Flag
207	History of geology	5	2	2	8
208	Geological technique (field, lab)	4	4	2	
208.2	Mathematical geology, statistics	4	4	2	
209	Miscellany, essays, special topics	3	4	2	
209	Religion and geology	3	0	1	1
210	Dynamic and physical geology	5	4	4 or 5	
211	Atmospheric agents, weathering	4	3	3	3
212	Extraterrestrial forces	3	2	4	
213	Erosion	4	4	4 or 5	3
213	Sediment transport	5		4 or 5	
214	Underground water action (rarely used number)	0	4	4 or 5	
216	Organic agents	3	3	4	
218	Thermal or igneous agents	4	3	4	
219	Experimental geol investigations	4	2	4	
220	Volcanoes, volcanism	5	3	4 or 5	3
230	Geothermal resources	4	2	3	3
240	Earthquakes, seismology	4	3	4 or 5	
240.1	Conferences	4	3	4	
240.2	Earthquake engineering	3	2	4	2
240.3.	Geomorphological effects	4	3	4	_
240.4	Earthquake prediction	4	3	4 or 5	
240.5	Induced seismicity	4	3	4	
240.6	Soil liquefaction	4	3	4 or 5	
240.8	Seismometry	3	3	4	
240.9	Paleoseismology	4	3	4	
245	Landslides, debris flows, rockslides	4	4	4 or 5	3
248	Local land subsidence, sinkholes	4	3	4	
249	Natural disasters	4	3	4	
249.1	Congresses	4	3	4	
249.2	Natural disaster effects on construction	2	3	4	
250	Glaciology and glaciers	5	2	2	
256	Ice & snow, permafrost, frozen ground	2	3	2	
256	Permafrost, frozen ground	4		2	
260	Structural geology	5	4	4	3
270	Deformations	5	4	4	3
276	Faults and folding	5	4	4 or 5	3
280 - 283	Intrusions	4	4	4	
291	Oscillation (tilting, earth movement)	3	3	4	
293	Orogeny	5	4	4	3
295	Geophysics	4	4	4	3
295.2	Seismic profiling, seismic waves	4	3		
295.3	Cosmic physics, earth tides, space plasma	2	1	2	2
295.5	Nuclear geophysics	3	2	2	
296	Geomagnetism, magnetic surveys	3	4	4	3
297	Isostasy	4	2	4	1
297.5	Gravity investigations	4	2	2	2
298	Geochemistry	4	4	3	3
298.3	Biogeochemistry, biomineralization	4	2	3	1

	SECTION 4 – HISTORICAL GEOLO	GY			
		Reston	Denver	Menlo	Flag
302	Collections (sets)	5	2		
303	Historical geology	5	4	4	
305	Stratigraphic tables	5	4	4	
306	Nomenclature, classification	5	4	3	
308	Geologic maps, atlases	5	4	5	
308.4	Lists of geological maps	5	4	3	
309	Essays and collections	4	2	3	
310	Earth origin	5	4	4	
311	Continental drift, plate tectonics	5	4	5	
312	Earth crust/mantle	5	4	5	
313	Earth internal structure	5	4	4	
314	Paleogeophysics, paleomagnetism	5	4	4	
315	Geologic time	5	4	4	
319 - 354	Stratigraphy and time periods	5	4	4	3
360 – 366	Paleogeography	4	2	4	2
370	Paleoclimatology	4	4	4	1
371	Paleohydrology	4	4	3	
				_	
	SECTION 5 – MINERAL RESOURCES AN	ID INDUSTRIES, 1	ECONOM	IC GEOI	OGY
	SECTION C THE SECTION OF THE SECTION	Reston	Denver	Menlo	Flag
401	Congresses	5	4	2(4 CA	15
.01				& NV)	
402	Mineral resources agencies	5	4	2(4 CA	
	Transfer 1000 011000 ugonoros			& NV)	
403	Mineral resources, mineral industries	4	4	3(4 CA	
			-	& NV)	
403.1	Mineral technology	3	2	2(4 CA	
	<i>E</i> 3			& NV)	
404	Economic aspects	4	3	2(4 CA	
				& NV)	
405	Encyclopedias, catalogs	5	4	3(4 CA	
				& NV)	
405	Catalogs	2	4	2(4 CA	
				& NV)	
406	Nomenclature & classification	5	4	2(4 CA	
				& NV)	
407	History (includes mining history)	4	2	2(4 CA	
				& NV)	
408	General mineral, metal statistics	4	4	2(4 CA	
				& NV)	
409	Essays, collections, special topics	3	2	2(4 CA	
				& NV)	
410	Mineral deposits	5	4	3(4 CA	2
	-			& NV)	
410	Ore deposits (general)	5	4	4(4 CA	3
				& NV)	
410 – 416	Ore deposits	5	4	3(4 CA	2
	-			& NV)	
410-415	Mining of metals	4	4	3(4 CA	
i	e e e e e e e e e e e e e e e e e e e		1	& NV)	ĺ

		Reston	Denver	Menlo	Flag
420	Mines and mining	4	2	2(4 CA	1
0			_	& NV)	-
421	Mining law, legislation	2	2	2(4 CA	
			_	& NV)	
422	Economic aspects (+ Mine prospectuses)	3	1	1	
424	Mine surveying	2	0	1	
425	Mining methods & working, safety	2	1	1	
425.2	Mining subsidences	4	1	2	
426 – 426.4	Prospecting (geochemical, seismic, etc)	4	4	2	
427	Hydraulic mining	3	1	1	
428	Taxation	1	0	1	
429	Metallurgy, flotation, ore dressing,	3	1	2	1
429.1-429.7	Gold, silver, iron, steel, lead, etc.	4	3	2	
430	Metals in natural state	4	3	2	
431	Gold and silver	4	3	4	
432 – 439.4	Other metals	4	3	2	
439.5	Actinides	4	3	2	
439.5	Non-metallic elements	4	3	2	
439.6	Halogens	4	3	2	
439.7	Inert gases (Radon, neon, argon, etc)	4	3	2	
440-459.91	Industrial minerals	4	3	2	1
441	Clay	4	3	2	1
442	Cement and concrete	3	2	2	
443	Fertilizers, phosphates, nitrates	3	3	2	
444	Salt	4	3	2	
445	Sulphur, pyrite	4	3	2	
446	Asbestos	4	3	3	
446.1	Amphiboles	4	3	4	
446.2	Serpentinite	4	3	2	
446.3	Mica	4	3	2	
447	Abrasive materials	4	3	2	
448	Mineral paints	2	3	2	
451	Tale	4	3	4	
452	Fluorite (fluorspar)	4	3	2	
453	Silicates	4	3	2	
454	Carbonates, chalk, lime, etc.	4	3	2	
459	Siliceous earth	4	3	2	
459.91	Economic aspects of nonmetals	4	3	2	
460	Carbon and its compounds	4	3	2	
461	Coal	5	4	2	
461.1	Coal congresses	5	4	2	
461.3	Environmental aspects of coal production	4	3	2	
461.4	Coal technology	3	2	2	
462	Anthracite	4	3	2	
463	Bituminous	4	3	2	
464	Peat	4	3	2	
465	Asphalt	2	3	3	
466	Graphite	4	3	2	
467	Petroleum	4	4	3	
467.1	Petroleum congresses	4	4	2	
					<b>!</b>
467.3	Petroleum chemistry	2	4	3	

		Reston	Denver	Menlo	Flag
467.7	Petroleum law and legislation	1	2	2	
467.8	Helium	3	1	2	
467.9	Miscellaneous topics	1	1	2	
468	Manufactured fuels	1	0	2	
469	Other compounds incl. amber and jet	3	0	2	
470- 478	Building and ornamental stones	3	1	2	1
479	Construction and road materials	3	1	2	
480	Precious stones, gems in general	4	2	2	
481-489	Specific precious stones	4	2	2	
490	Ground water, aquifers, etc.	5	4	4	2
491	Springs	5	4	4	
492	Artesian wells	5	4	4	
493	Mineral waters	4	4	4	
494	Groundwater pollution	5	4	4	
495	Composition, analysis	5	4	4	
497	Groundwater quality	5	4	4	

		Reston	Denver	Menlo	Flag
500	Topographic maps	4	4	5	
500.1	Landsat, photo, aerial photo maps	3	4	4	
501	Congresses	4	2	2	2
502	Exploring expeditions	4	2	2	2
503	Geomorphology and physical geography texts	4	3	4	
503	General treatises	3	3	4	3
504	Descriptive and general geography	2	2	2	2
505	Encyclopedias and yearbooks	2	2	2	2
506	Geographic names, gazetteers	3	3	3	2
507	History of geography, geomorphology	4	2	2	1
508	Atlases and maps	4	4	3	1
508.4	Lists of maps, index maps, bibs	4	4	2	1
509	Essays and collections	3	2	1	-
510	Meteorology/weather	3	2	2	1
511	Atmospheric physics	2	2	2	2
512	Climatology	3	4	3	1
512	Climate change	4	4	3	1
513	Weather modification	1	1	1	1
514	Air pollution	2	2	2	1
515	Winds, storms, hurricanes, etc.	2	1	1	1
516	Droughts	3	3	3	1
518	Soil formation, soil origin	3	3	3	2
520	Continents (rarely used number)	0	2	3	+ -
521	Shorelines, coastal zone	4	1	3	-
523	Fjords, continental shelf and margin	4	1	3	-
525 525	Coral reefs, islands	3	1	3	0
	· · · · · · · · · · · · · · · · · · ·	3			Ť
530	Oceanography		2	3	1
530.01	Conferences	3	2	3	-
530.02	Oceanographic instrumentation	2	1	3	1
530.1 – 530.9	Specific oceans	3	2	3	1
531	Ocean currents	2	1	3	
532	Tides, tide gages	3	1	3	0
532.1	Sea-level changes	4	2	4	
533	Icebergs, sea ice	2	2	3	
535	Marine sediments	4	3	4	1
537	Marine resources, ocean mining	4	3	3	1
537.1	Conferences	3	2	3	
537.2	Law of the sea	2	0	2	
537.5	Marine pollution	2	2	2	1
537.6	Manganese nodules	4	1	3	_
538	Marine geophysics	3	1	4	
539	Marine structures, offshore platforms	1	0	4	
540	Landforms, physiography	5	3	4	3
541	Mountains	4	3	4	
542 - 546	Plateaus, plains, hills, terraces, valleys, etc.	4	3	4	
547	Caves, karst, sinkholes	4	3	2	
548	Deserts	4	3	4	
549	Dunes	4	3	4	
550	Water features	4	3	3	
551	Springs (not geothermal)	4	3	3	
552	Rivers, deltas, floods, watersheds	5	4	4	T

		Reston	Denver	Menlo	Flag
553	Waterfalls, rapids, whirlpools	3	2	3	
554	Lakes, ponds, playas	4	4	4	
555	Drainage	3	4	4	
556	Swamps, moors, wetlands, marshes	4	4	3	
557	Estuaries, tidal basins and marshes	4	4	4	
558	Bays, lagoons, sounds	3	4	4	
559	Glaciers (not glaciology)	5	3	3	
580	Natural resources	4	3	4	
580.1	Energy & power conferences	3	3	3	
580.3	Energy recovery from wastes	2	2	2	
582	Environment	3	3	4	
582.1	Environment conferences	3	2	2	
583	Pollution	4	4	3	2
583.1	Pollution conferences	3	2	2	
585	Conservation	3	2	2	1
585.1	Conservation conferences	3	2	2	
585.3	Resource conservation	3	2	2	
585.4	Demographic studies & environment	2	1	2	
585.5	Environmental impact statements, land use plan	3	1	2	2
585.7	Parks wilderness, recreation areas	2	1	2	
590	Description and Travel	2	1	2	
570	SECTION 7 - PALEONTOLOGY	1 -	1 -	<u> </u>	
	SECTION TIMESON OF SECTION	Reston	Denver	Menlo	Flag
601	Congresses	4	3	3	19
602	Collections + serials from orgs	4	3	3	
603	Textbooks, treatises	4	3	3	3
603.1	Micropaleontology	4	3	3	2
604	Elementary Textbooks	2	0	3	
605	Catalogs	3	0	2	
606	Nomenclature & classification	4	2	2	
608	Techniques	3	1	3	
609	Miscellany, essays and collections	2	1	3	
610	Ichnofossils, trace fossils	4	1	3	
611	Undetermined material, conodonts	4	1	3	
612	Paleoecology	4	3	3	2
613	Paleobiology	4	3	3	
614 – 679	Paleozoology (vertebrates, invertebrates	4	3	3	2
679.9	Man (includes Paleolithic)	1	2	2	_
680	Stratigraphic paleontology	4	3	3	
690	Paleobotany	4	3	3	2
696	Palynology	4	3	3	2
699	Miscellany	0	1	0	
077	Miscondify	0	1	0	
SECTIO	DN 8 – MATHEMATICS, ASTRONOMY, ENGINEE	RING. A	ND SURV	EVING	
SECTION		Reston	Denver	Menlo	Flag
701	Congresses	2	2	1	5
705	Tables	2	2	1	
706	Nomenclature, abbreviations, etc.	2	2	1	
708	Technique	2	1	1	
710 - 716	Math, algebra, trig, calculus, etc	2	2	2	2
718	Theory of error	1	1	1	
719	Other, includes analysis, statistics	3	1	11	2
/17	Onici, includes analysis, statistics	J	1	11	<u> </u>

		Reston	Denver	Menlo	Flag
730	Astronomy	2	1	3	3
730.1	Astrophysics	2	1	3	4
730.3	Space chemistry	2	0	2	
730.4	Space biology	2	0	2	
730.6	Instruments	0	0	2	
731	Theoretical astronomy & celestial mechanics	1	1	2	4
732	Navigational & nautical astronomy	1	1	1	3
733	Spherical astronomy	0	1	1	
734	Descriptive astronomy	2	1	2	3
734.1	Universe other than solar system	1	0	3	
734.2	Cosmic dust	2	0	3	
734.3	Asteroids	2	0	3	
734.4	Stars	1	0	2	
734.5	Sun	1	0	2	
734.6	Meteors	3	1	2	
734.7	Comets	2	0	2	
735	Planetary astronomy (& solar system)	2	1	3	
735.1	Earth	3	1	4	
735.2	Mars	3	1	3	
735.3	Venus	3	1	2	
735.4	Other major planets (Jupiter, Mercury, Saturn)	3	1	2	
735.8	Minor planets	3	0	2	
736	Moon	3	0	3	
736.1	Lunar geology	3	1	3	
736.2	Lunar petrology	3	1	3	
736.3	Lunar mineralogy	3	1	3	
737- 737.7	Planetary geology, astrogeology	3	1	4	
738-738.8	Cosmogeny (origin of universe)	2	1	2	3
739	Space sciences (exploration, space technology, artificial satellites)	2	2	2	2
739.1	Congresses	2	1	0	
739.4	Earth satellites (ERTS, Landsat, etc.)	2	1	3	
739.5	Satellite instrumentation	1	0	2	
739.7	Space shuttles	0	0	2	
739.8	Space stations	0	0	2	
740	Geodesy	3	3	3	2
741	Theory, determination of earth's figure	2	3	3	
742	Base measuring and apparatus	2	2	3	
743	Field work of triangulation	3	2	2	
744	Computation	2	2	2	
745	Formulae and applications	2	2	2	
747	Lat/log, map projections	4	2	2	
748	Global positioning systems	2	2	4	
748.1	Lunar geodesy	3	2	2	
750	Surveying	3	2	2	
750.1	Congresses	3	2	2	
750.3	Encyclopedias	3	2	2	
751	Instruments	2	2	2	
752	Measurements of angles, heights, altitudes, leveling	3	2	2	
753	Topographical drawing	2	2	2	
	-1-8 -1				1 -
753.1	Photogrammetry (general)	4	3	2	
		2 2	3 2	2 3 2	

		Reston	Denver	Menlo	Flag
753.5	Aerial surveying	3	3	3	3
753.55	Conferences	2	2	2	
753.6	Orthophotography and mapping	4	3	2	
753.7	Remote sensing	4	3	3	
753.71	Conferences	4	3	2	
753.74	Instruments	2	2	2	
753.75	Remote sensing of natural resources	4	3	3	
753.76	for hydrologic studies	5	3	3	
753.77	for geol, mineralogical studies	5	3	3	
753.78	for land use studies	4	3	3	
753.79	Other remote sensing studies	4	3	3	
754	Topographic surveying by states, countries	4	3	3	
755	Boundary surveying	4	3	3	
756	Military, naval, land surveys	3	1	3	
757	Drawing, lettering, illustrations	2	0	3	
758	Coloring	1	0	2	
759	<u> </u>	4	3	3	2
	Cartography Conferences				3
759.1		4	2	2	
759.3	Workbooks	2	0	2	
759.4	History of cartography	3	2	2	2
759.5	Computerized mapping	4	4	22	3
759.6	Cartographic standards and manuals	3	2	2	
760	Engineering	2	1	2	
761	Conferences	2	1	2	
762	Reports of utility companies	0	0	1	
763	Contracts, specifications	0	0	1	
764	Designs and drawings	0	0	1	
765	Tables and calculations	1	0	1	
766	Materials of construction	2	0	1	
767	Strength of materials	2	1	1	
767.5	Instruments for strength testing	1	0	1	
767.8	Testing of materials	1	0	3	
768	Soil mechanics/rock mechanics	4	3	3	2
768.1	Conferences	4	1	1	
768.2	Foundations	3	1	2	
768.3	Dams	4	1	4	
768.4	Other (underground construction)	2	1	1	
769	Structures and military construction	2	1	1	
770	Mechanical engineering and machinery	1	1	1	
770.3-770.5	Vehicles, machines	0	0	1	
771	Power engineering (solar, waves, etc)	1	0	1	
772	Transportation engineering	1	0	1	
773	Tunnels and tunneling	3	1	2	
774	Highway engineering	2	1	2	
775	Bridge engineering	2	1	2	
776	Pipeline engineering	1	0	2	
777	Well drilling and boring	3	2	2	
778	Hydraulic engineering (Canals)	3	1	2	
779	Agricultural engineering (multi-topical, serial)	1	1	2	
780	Hydrology	5	4	5	
780.01	Conferences	5	4	4	
780.1	Water – juvenile lit	0	0	2	1

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780.2	Hydrological instruments, measurements (see also	4	4	3	
	783)				
781	Rainfall, runoff, snow surveys	4	4	4	
782	Evaporation and seepage	3	4	4	
783	Stream measurements	5	4	4	
784	Water resources development	4	4	4	
784.1	Conferences	4	4	4	
785	Stream control, hydro & water power	4	4	4	
786	Land restoration, reclamation	3	2	4	
790	Agricultural water supply, irrigation	2	1	3	
791	Impounded water supply and distribution	3	1	4	
793	Water conservation, use, waterworks	3	4	4	2
794	Purification of water supply	2	2	2	1
795	Water pollution	4	4	4	2
795.3	Radioactive water pollution, waste disposal	4	4	4	
795.6	Thermal pollution of lakes, etc.	3	4	2	
796	Analysis of water	4	4	4	2
797	Water quality	5	4	4	
798	Water rights, legislation	2	1	3	
799	Sewerage and sanitation	2	1	4	2
799.3	Treatment and disposal	2	1	3	
799.5	Industrial waste disposal & recycling	2	1	3	
799.7	Sewerage utilization, water reuse	1	1	3	
	SECTION 9 – PHYSICS AND CHEMISTRY				_
	SECTION 9 - PRISICS AND CREWISTRY				
		Reston	Denver	Menlo	Flag
801	Conferences	1	2	2	Flag
802		1 2	2 2	2 2	Flag
802 803	Conferences Society publications General treatises and texts	1 2 2	2 2 3	2 2 3	Flag
802 803 805	Conferences Society publications General treatises and texts Encyclopedias, tables	1 2 2 2	2 2 3 2	2 2 3 3	
802 803 805 806	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification	1 2 2 2 2	2 2 3 2 2	2 2 3 3 2	
802 803 805 806 807	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History	1 2 2 2	2 2 3 2 2 1	2 2 3 3 2 2	2
802 803 805 806 807 808	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories	1 2 2 2 1 0	2 2 3 2 2 1 2	2 2 3 3 2 2 2 22	
802 803 805 806 807 808	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany	1 2 2 2 1 0 1	2 2 3 2 2 1 2 2	2 2 3 3 2 2 2 22 2	2
802 803 805 806 807 808 809 810	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics	1 2 2 2 1 0 1 1 1 2	2 2 3 2 2 1 2 2 2 3	2 2 3 3 2 2 2 2 2 2 2	3
802 803 805 806 807 808 809 810 810.3	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts	1 2 2 2 1 0 1 1 2 2	2 2 3 2 2 1 2 2 2 3 2 2 2 2 3 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2	3
802 803 805 806 807 808 809 810 810.3	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics	1 2 2 2 1 0 1 1 1 2	2 2 3 2 2 1 2 2 2 3	2 2 3 3 2 2 2 2 2 2 2	3
802 803 805 806 807 808 809 810 810.3 810.6 811	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences	1 2 2 2 1 0 1 1 2 2 2 1	2 2 3 2 2 1 2 2 3 2 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 2 2 2	3 3 2
802 803 805 806 807 808 809 810 810.3 810.6 811	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures	1 2 2 2 1 0 1 1 2 2 2 1 1 1 2 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 1 1 2 1 1 2 1 1 1 2 1	2 2 3 2 2 1 2 2 3 2 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2	3
802 803 805 806 807 808 809 810 810.3 810.6 811 814	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity	1 2 2 2 1 0 1 1 2 2 1 1 2 0	2 2 3 2 2 1 2 2 3 2 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11	3 3 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter	1 2 2 2 1 0 1 1 2 2 1 1 1 2 2 1	2 2 3 2 2 1 2 2 2 3 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1	3 3 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences	1 2 2 2 1 0 1 1 2 2 1 1 1 2 0 1 1 1 1 2	2 2 3 2 2 1 2 2 2 3 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2	3 3 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic	1 2 2 2 1 0 1 1 2 2 2 1 1 1 2 0 1 1 1 1	2 2 3 2 2 1 2 2 2 3 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2	3 3 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias	1 2 2 2 1 1 0 1 2 2 2 1 1 1 2 2 0 1 1 1 2 2 2 2	2 2 3 2 2 1 2 2 2 3 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2	3 3 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory	1 2 2 2 1 1 0 1 1 2 2 0 1 1 1 2 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2 1 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2 1 2 3 1	3 3 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4 815.5	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity	1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 3	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2	3 3 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814,8 815 815.1 815.2 815.3 815.4 815.5 815.6	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state	1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 3 1 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 2 2 2 1 1 1 1 2 2 2 1 1 1 1 1 1 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 1	3 3 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814.8 815.1 815.2 815.1 815.2 815.3 815.4 815.5 815.6 817	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state Materials sciences	1 2 2 1 1 1 2 2 1 1 2 2 1 1 3 1 2 2 1 2 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 2 2 2 1 1 1 1 2 1 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 2 1 2 2 1 2 1	2 3 3 2 2 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4 815.5 815.6 817 820	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state Materials sciences Mechanics, mass physics	1 2 2 1 1 1 2 2 1 1 3 1 2 2 2 2 2 1 2 2 2 1 3 3 1 2 2 2 2	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 1 1 1 2 2 2 2 2 2 2 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 1	3 3 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4 815.5 815.6 817 820 821	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state Materials sciences Mechanics, mass physics Solids	1 2 2 1 1 1 2 2 1 1 2 2 1 1 3 1 2 2 1 2 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 2 2 2 1 1 1 1 2 1 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 3 1	2 3 3 2 2 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4 815.5 815.6 817 820 821 821.5	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state Materials sciences Mechanics, mass physics Solids Experimental cratering	1 2 2 2 1 1 1 2 2 2 1 1 3 1 2 2 2 1 1 1 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 2 2 1 1 1 2 1 1 1 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 3 1 2 2 3 1	2 3 3 2 2 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4 815.5 815.6 817 820 821 821.5 821.6	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state Materials sciences Mechanics, mass physics Solids Experimental cratering Explosion craters	1 2 2 2 1 1 1 2 2 2 1 1 3 1 2 2 2 1 1 1 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 1 1 1 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 3 1 2 2 2 2	2 3 3 2 2 2 2
802 803 805 806 807 808 809 810 810.3 810.6 811 814 814.8 815 815.1 815.2 815.3 815.4 815.5 815.6 817 820 821 821.5	Conferences Society publications General treatises and texts Encyclopedias, tables Nomenclature, classification History Technique, laboratories Essays, lectures, miscellany Physics General treatises and texts Mathematical physics Conferences Weights and measures Specific gravity Constituents, nature, properties of matter Conferences Nuclear engineering, power, atomic Encyclopedias Quantum theory Radioactivity Solid state Materials sciences Mechanics, mass physics Solids Experimental cratering	1 2 2 2 1 1 1 2 2 2 1 1 3 1 2 2 2 1 1 1 1	2 2 3 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 1 1 2 2 2 2 2 2 1 1 1 2 1 1 1 2 1	2 2 3 3 2 2 2 2 2 2 2 2 2 2 1 11 1 2 3 1 2 3 1 2 2 3 1	2 3 3 2 2 2 2

		Reston	Denver	Menlo	Flag
822.3	Rheology	1	1	2	
823	Gases and pneumatics	0	1	2	
825	Sound, acoustics, sound waves	1	2	22	1
827	High pressure research	1	1	2	
828	Impact phenomena	3	2	2	
830	Heat	2	2	3	2
831	Apparatus	1	1	2	†
834	Thermodynamics	3	2	3	2
835	Light, optics, spectroscopy	3	2	2	2
835.1	Conferences	2	2	1	1
835.7	Apparatus and instruments	2	`1	1	
837	Photography	2	2	1	3
837.1	Microphotography	2	2	1	7
837.4	Holography	1	1	1	
837.5	Audiovisual technology	1	1	1	
838	Radiation, x-rays, etc.	2	2	2	1
840	Magnetism (not geomagnetism)	2	2	2	2
845	Electricity	1	2	2	2
846	Theory	0	2	2	<u> </u>
847	Experiments	0	2	2	
	*	0	2		2
848	Applications, apparatus, electronics		1	1	<u> </u>
848.5	Components (instruments, etc)	0	1	1	
849	Waves	0	2	3	_
850	Chemistry	2	3	22	2
850.1	Conferences	1	2	1	
850.3	General treatises and texts	2	2	1	-
850.5	Encyclopedias, tables, texts	32	3	2	2
850.6	Nomenclature	1	2	1	
850.7	History	1	1	1	
850.8	Apparatus, techniques & laboratories	2	3	2	1
850.9	Collections and miscellany	0	2	1	
851	Physical and theoretical chemistry	2	3	2	2
852	Thermochemistry	2	3	2	2
853	Atomic theory	1	2	1	
854	Conditions, laws of chemical change	1	2	1	
855	Theory of solution	2	1	2	
856	Radiochemistry	32	3	2	2
860	Experimental chemistry	1	2	2	
863	Equilibria	1	2	2	
865	Electrochemistry	2	2	2	<u> </u>
870	Inorganic chemistry	2	3	3	2
871	Nonmetallic elements	2	2	2	
872	Metals, organometallic, metallic	3	2	2	
875	Organic chemistry	1	3	3	2
878	Biochemistry	1	2	2	1
880	Analytical chemistry	2	3	3	2
881	Qualitative analysis	1	3	2	<u></u>
882	Microchemical analysis	1	3	2	
883	Quantitative analysis	1	3	2	
884	Volumetric analysis	1	3	2	
885	Electrolytic, magneto-chem analysis	1	3	2	
886	Other specific methods of analysis	1	3	2	1

		Reston	Denver	Menlo	Flag
887	Inorganic materials analysis	1	3	2	
888	Organic materials analysis	1	3	2	
889	Synthesis	1	2	2	
890	Chemical technology & engineering	2	2	2	1
890.1	Sorption, adsorption	1	2	2	
892	Agricultural and soil chemistry	3	3	3	2
895	Alloys	2	1	2	
896	Metallography of steel	1	1	2	
	SECTION 10 - BIOLOGY				
		Reston	Denver	Menlo	Flag
901	Conferences	1	1	3	
902	Encyclopedias, handbooks	2	1	3	
903	Natural history	3	2	1	2
904	Popular & older works	0	0	1	
905	Biology	2	2	3	1
907	Bacteriology	2	2	2	1
908	Technique	2	2	2	1
909	Miscellany, wildlife collections	2	2	2	
910	Anthropology	1	1	1	
913	Instinct	0	1	1	
915	Evolution, extinction, origin	3	2	3	1
917	Physiology	1	1	2	
918	Animal and plant distribution	3	2	2	1
919	Ecological studies	3	3	3	1
919.52	Coastal ecology	3	1	5	
919.53	Marine ecology	2	1	5	1
919.54	Landform ecology	2	2	4	
919.55	Freshwater ecology	3	3	4	1
919.67	Human ecology	2	2	3	2
919.92	Plant ecology	2	2	2	1
919.93	Savanna, grassland ecology	1	2	2	
919.94	Soil ecology	2	2	4	
919.97	Animal ecology	1	2	2	
920	Botany	2	1	2	1
921	Conferences	1	1	1	
923	Texts, general treatises	1	1	1	
924	Elementary texts	1	0	1	
925	Catalogs	0	1	1	
926	Nomenclature, classification	2	1	1	
927	History	0	1	1	
928	Plant distribution	2	1	2	1
929	Essays, collection, special topics	1	1	1	
930 - 933	Cryptogams (Bryophytes, etc)	1	1	1	1
935 - 939	Seed or flowering plants	1	1	1	1
940	Agriculture, horticulture	1	1	1	
941	Soil science	3	3	4	2
941.1	Conferences	2	2	2	
944	Soil moisture	2	2	2	
950	Forestry, reforestation, forest fires	1	2	3	
970	Zoology	2	2	1	1
971	Conferences	1	1	1	-
- / -	20	1 -	1 -	1 -	<del></del>

973	Texts	1	1	1	
974	Elementary, popular, older works	0	1	1	
975	Catalogs	0	1	1	
976	Nomenclature and classification	3	1	2	1
977	History	0	1	1	
978	Animal distribution	2	1	2	1
979	Miscellany	0	1	2	
980 – 989	Invertebrata	2	2	3	1
990	Vertebrata	2	2	2	1
991	Fish	1	1	3	
993	Frogs, salamanders, etc	1	1	2	
995	Reptiles	1	1	3	
997	Birds	1	1	3	
999	Mammals	1	1	3	

# COLLECTION DEVELOPMENT PLAN APPENDICES

#### APPENDIX 1

#### POLICIES FOR USGS OPEN-FILE REPORTS

## **Collection Policy**

The USGS Library in Denver is the main repository for Open-File Reports and has the most complete holdings in the library system. All four libraries collect Open-File Reports in whatever formats they are produced. No attempt is made to create paper copies of electronic only reports, but paper copies donated to the library may be kept as additional copies. A library may keep up to two copies of a report in order to have a copy to lend via interlibrary loan. Microfiche counts as a copy.

## **Authority List**

The authority list of older Open-File Reports will be compiled by the Denver Library based on the original Open File Services Section list. The reports will be classed in (200) R290 and numbered as Year-No. The list can be given to other libraries when requested.

### **Cataloging Policy**

Early reports (prior to 1974) issued without series numbers were cataloged in the Library in alternate series, in separate class numbers (usually (200)), or assigned arbitrary consecutive numbers in the (200) R290 series. These reports will be re-classed according to the authority list. This will be regarded as a low priority revision for Reston. Both call numbers will be given in the catalog record. Dual series will be noted on the catalog record.

All libraries will give priority to barcoding all copies, including microfiche copies, to best maintain an inventory of holdings. The Denver library, in partnership with the Reston catalogers, will ensure that all reports have online catalog records.

## **Loan Policy**

Denver's first copy set will be regarded as a reference collection and will not circulate. The other libraries will supply copies to Denver to fill in missing numbers. The other USGS libraries may freely loan according to the same loan rules as applies to most publications.

## Copying

If no copy is available for loan in the Library System and the report is in the range of 20 pages, the library may copy the report to fill an ILL request or refer the requester to Distribution to obtain longer reports available for sale. If no copy is available for lending or from Distribution, the library will refer requesters to outside document delivery services. On-site library visitors, including document delivery suppliers, may copy paper and microfiche open-file reports using library pay copiers or reader/printers.

#### **APPENDIX II**

#### POLICIES FOR PUBLICATIONS OF STATE AGENCIES

2/8/99

# **Policy**

- 1. Publications of state earth science agencies will be kept in the USGS Library System by regions. The assumptions are that the reports will be more heavily used by USGS researchers stationed in those areas and local ownership would give them faster access to these publications. In the past, exchange agreements allowed for multiple copies for distribution to Reston and branch libraries. However, with increasing costs, many exchange partners cannot provide multiple copies and are supplying Reston with only one exchange copy. Branch libraries must now often purchase these materials when needed.
- 2. Publications will be kept by the assigned library, not on an archival basis (which would restrict circulation), but on a "last remaining copy (LRC)" basis. LRC means that the regional library accepts the responsibility of retaining the collections for their areas indefinitely. Other libraries in the system may choose to remove copies from their shelves to store or discard in order to provide space for more heavily used publications.
- 3. The regional library holding the publications will insure that copies are systematically available to organizations publishing electronic databases, such as AGI, for indexing, and that the materials are routinely cataloged for Horizon.
- 4. Each regional library may request to be on an alternate or second priority list to receive second or third copies of publications from states frequently requested by their users. (For example, Flagstaff has expressed interest in reports on Nevada and Utah and Denver in California reports.)
- 5. While regional libraries will be the primary source for state publications of their region, regional ILL and field requests for non-regional publications still held by a library will continue to be filled.

#### Regions

The states have been divided differently at various times and by different divisions depending on administrative prerogatives. The following division, based on regional subdivisions of the Geologic Division, is accepted by the library. This division could be subject to any major re-organization by the Agency. Utah has at various times been considered part of the Western States, but its proximity to Colorado seems to logically place Utah in the sphere of Denver.

## RESTON (EASTERN)

Alabama, Connecticut, Delaware, DC, Florida, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, Wisconsin

# DENVER (CENTRAL)

Arkansas, Colorado, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming

## MENLO PARK (WESTERN)

Alaska, California, Hawaii, Idaho, Nevada, Oregon, Utah, Washington, U.S. Pacific Islands

FLAGSTAFF (WESTERN) Arizona

## State Agencies

The state agencies which will be divided regionally are the equivalent organizations of USGS research disciplines in each state - Biological Resources, Geology, Geography, and Water Resources. These would include agencies related to state natural surveys, state geological surveys, state energy agencies, state mapping agencies, and state water surveys.

## **Procedure**

Due to limitations of staff time in all locations, the following procedures will be done as time allows:

- 1. Shipment of unaccessioned non-Eastern publications from Reston to branch libraries.
- 2. Each library will do inventories of missing regional publications and request missing copies to be transferred to their collection from other system libraries. This will ensure complete sets in the regional library.
- 3. Where possible, the Reston exchange staff will request the state agency to ship directly to the appropriate regional library and Reston staff will re-direct new publications if they are received in Reston.
- 4. Surplus copies of new or old, regional and non-regional, publications, if not needed by the appropriate regional library, will be offered to other USGS libraries.

### Appendix III

## <u>U.S. Geological Survey Libraries Depository Library Public Service</u> Guidelines for Government Information in Digital Format

Approved: April 7, 1999

INTRODUCTION: The following policy is established in accordance with the <u>Federal Depository Library Program (FDLP) Internet Use Policy Guidelines</u> issued in the Newsletter for Jan. 15, 1999 and related information published in the Newsletter for Sept. 15, 1998 and June 15, 1998. The written access policy is required for the two selective depository libraries in the USGS system in Reston and Menlo Park and can apply to the Denver and Flagstaff libraries both of which provide public access to government electronic publications as part of their public service.

- 1. Each USGS library will provide one or more computer workstations that allow library users to access information released through the depository program on CD-ROMS, diskettes, and the Internet. Number of workstations available will be based on usage. These workstations will be available during scheduled public service hours of the library.
- 2. The workstations available for public use will meet or exceed the latest "Recommended Specifications for Public Access Work Stations in Federal Depository Libraries" as published annually in Administrative Notes and be upgraded as soon as is feasible.
- 3. Assistance or reference help will be provided at the same level as that provided to patrons for other parts of the library collections, especially electronic products. Where an electronic product proves to require special expertise to load or equipment fails, the requestor will be given an appointment when the product can be viewed and the problem will be expeditiously resolved to allow access.
- 4. Free and unrestricted searching will be allowed. Public workstations for these products will not use filtering software that may restrict access to official information. Subject searching will not restricted by type or monitored for content. E-mail capability of the browser may be blocked as determined by the systems staff.
- 5. Electronic products and services selected under the depository program will be accessioned and made available for use by library users in a timely manner. Policies for circulation or interlibrary loan availability will be the same as for other electronic products.
- 6. Internet access will be available at no cost. Patrons will be charged the same fees or no fees for printing and diskettes as applied to similar products and other collections within the library. In accordance with library computer security, patrons will be asked to use diskettes provided by the library, not their own disks.
- 7. Patrons will not be required to present identification or questioned about identity beyond determining circulation status and statistical information determined by the question "Do you work for the U.S. Geological Survey? with Yes or No as the only answer.
- 8. Accessing obsolete data formats and/or storage media will be only to the extent that hardware, software, and/or expertise exists in the Library. No special efforts will be made to convert the data. Where access can not be provided, users will be referred to the issuing agency or organization.

## Appendix 4

Related Collection Development Policy Statement of the Library of Congress

http://www.loc.gov/acq/devpol/colloverviews/ 8/11/02

# COLLECTION DEVELOPMENT

The Library of Congress

<u>Collections Overviews Home</u> - <u>Master List of Collections Overviews</u> Collections Overviews - Science and Technology

#### ENVIRONMENTAL and EARTH SCIENCES

### **SCOPE**

This overview focuses on the Library's collections in environmental science, which includes such varied and relevant subjects as air, land, and water pollution, solid waste management, biodiversity, endangered species, and tropical ecology, and its collections in the earth sciences, the latter including geology, paleontology and related topics. SIZE

Approximately 60,000 titles in earth sciences have been identified in LC's general collections; this figure does not, of course, include special collections. Probably 30,000 titles relate to environmental science and its extensions, again, not including special collections.

## GENERAL RESEARCH STRENGTHS

The earth sciences collections have long and definable tradition at the Library, dating from the purchase by Congress of Thomas Jefferson's library. Among the massive holdings on geology, palaeontology and related topics in the general and special collections are extensive serials and federal government and state publications accumulated over the years. Successive agencies in the United States government and state legislatures have been prolific in authorizing the publication of literature central to the study of earth sciences in this country, and LC has been the beneficiary of deposits by these sources.

Because of constant book and serial acquisition since the early nineteenth-century, the benefit of the Smithsonian deposits in 1870 and afterwards, deposits by U.S. Government and state agencies, and the seeking out of special collections in various media, the Library's collections in the earth sciences are, as related to America, nearly equal to those of the U.S. Geological Survey. Our holdings in world earth sciences are very strong, especially in the areas of mineralogy, stratigraphy, and soft rock geology. Environmental science, which began as the "conservation movement" in the nineteenth-century, originally had a literature which focused upon the saving of relatively large animal species from depletion by hunters, and the preservation of areas useful to humans from such factors as erosion. The Library's general collections well document this change from the conservation movement to the environmental movement, which is still so much an object of study that clear parameters have not yet been established.

The environment is a subject that knows no boundaries, and our collections, therefore,

The environment is a subject that knows no boundaries, and our collections, therefore, cover materials from all parts of the world, including those from third world countries, as well as in all languages. These collections also include major reference works, including statistical compilations, directories, abstracting and indexing services, technical reports,

project memoranda, government studies, development reports, and encompasses subjects from environmental law and coastal zone management to appropriate technology. AREAS OF DISTINCTION

Prior to the Library's decision in the early 1970s not to pursue the papers of earth scientists so as not to compete with other Federal libraries and in order to build upon existing strengths, LC already had some major manuscript collections in the earth sciences, chiefly correspondence of F. V. Hayden, director of the U.S. Geological and Geographical Survey of the Territories (1867-1879) in the George P. Merrill collection; the papers of U.S. Geological Survey officers S. F. Emmons, W. J. McGee, George Becker and F. H. Newell; the papers of eminent palaeontologist John C. Merriam; and ancillary manuscript collections such as those of scientific administrators Alexander Dallas Bache and Lloyd V. Berkner ("father of the International Geophysical Year"); geophysicist Merle Tuve; and related papers, such as those of many government officials who participated in surveys, and overview of activities related to earth sciences. The Prints and Photographs Division holds major documentary photographs and ancillary materials relating to the surveys of the American West and the Geography and Map Division has collections which are certainly secondary only to the Geological Survey's own, of the historical progression of the geological mapping of the United States. G&M also has many other charts and maps relating to the geological exploration of North America, from those of Lewis and Clark to date.

The Library's collections of materials relating to polar, arctic, and alpine research are very strong and support two ongoing bibliographies published by the Science and Technology Division: the Bibliography on Cold Regions Science and Technology and the Antarctic Bibliography. The Library retains in its collections microfiche copies of materials cited in these bibliographies. Although we have not added substantially to our special collections in the earth sciences, in the 1970s and 1980s we vigorously pursued the personal and professional papers of eminent environmentalists and persons in related fields, to augment already strong holdings. We hold the papers of pioneer conservationists Gifford Pinchot, Theodore Roosevelt and William T. Hornaday, as well as those of more modern figures such as Barry Commoner, Joseph Wood Krutch, Floyd Tangier-Smith, Fairfield Osborn, and contemporaries Robert C. Cook (of the "population explosion") and Edward O. Wilson, proponent of biological diversity.

The Library has an excellent representative collection of the seminal rare books of geology, as well as many in the applied fields of paleontology, mining, and metallurgy. Among some of the more significant works collected are those of Agricola (16th-century) Hutton and Guettard (18th-century) and Cuvier and Lyell (19th-century). WEAKNESSES/EXCLUSIONS

The Library decided early in the 1970s that it would not continue to seek the acquisition of special collection items in the earth sciences to avoid competition with other Federal libraries. The U.S. Geological Survey Library has the major special collection in the earth sciences, which we have not attempted to duplicate.

## Collections Overviews - Science and Technology

## LIFE SCIENCES

#### SCOPE

This overview of the Library's collections focuses on its life science collections which includes botany, biology, zoology, medicine, and agriculture as both pure and applied sciences. Although the Library holds large numbers of 19th and early 20th- century medical works, it has deferred to the National Library of Medicine for the acquisition of clinical medicine since the early 1950s. For the same period of time, the Library has also deferred acquisition of technical agriculture and veterinary medicine to the National Agricultural Library.

## **SIZE**

The Library's life sciences collections number well over a half million titles and are among the largest in the country. Materials in botany, biology, and zoology--the backbone of our life sciences collections--number over 130,000 titles. These are supplemented by even larger collections in medicine and agriculture, plus materials on anatomy, physiology, and bacteriology.

# GENERAL RESEARCH STRENGTHS

The Library's materials supporting research in the life sciences are strong in both their breadth and depth. The scientific publications of learned societies, botanical, zoological, and agricultural research institutes, major universities, both foreign and domestic, are well represented in our collections. This is especially true of the publications issued in the 18th and 19th- centuries where we have long, unbroken runs of monographic series and journals. Holdings for the last half of the 20th-century are less complete. The Library's collections in botany of materials on the morphology, physiology, and evolution of plants are especially substantial as are its collections on the taxonomy, anatomy, physiology, ethology, and evolution of the animal kingdom.

Biology, the study of living things, is a extremely diverse and varied discipline and represented in the Library's collections by substantial bodies of literature on molecular, systematic, and evolutionary biology, population genetics, natural history, ecology, animal behavior, and microbiology. Materials on invertebrate and vertebrate zoology, including humans, are strong and cover all aspects of these subjects, from conception and development to death and dying. Our collections in agriculture and medicine both complement and expand this life sciences component of our collections. Our materials relating to agricultural innovation, dryland agriculture, soil erosion, agricultural economics, bioethics, public health, bioengineering, aging, medical economics, and the diseases affecting plants, animals, and man, are superb and have provided the basis for scientific treatises and reports, literature reviews, scholarly research, Congressional debate, and legislation. Titles in the LC Science Tracer Bullet series on scientific topics of current interest also highlight notable reference works and major monographs in these areas

#### AREAS OF DISTINCTION

The Library's collections of materials chronicling the botanical discovery of North America are particularly strong. The history of plant exploration and taxonomic botany has been captured in the scientific tracts of the great exploring expeditions and the transactions of botanical societies, lyceums, and herbariums and are highlighted in color plate volumes by such artists as Isaac Sprague, Titian Ramsay Peale, and Pierre Joseph

Redout, Discovering, naming, and learning the uses of the flora and fauna of America sparked an interest in economic botany that is reflected in our collections by a plethora of material on plant utilization in commerce and industry, biotechnology, genetic engineering, and ethnobotany.

The Library's collections of herbals, food plants, and medicinal plants are described in some length in Leonard Bruno's The Tradition of Science: Landmarks of Western Science in the Collections of the Library of Congress (Washington, 1987) and in James Reveal's Gentle Conquest: the Botanical Discovery of North America with Illustrations from the Library of Congress (Washington, Starwood Pub., Inc., 1992). The Library's collections chronicling the history of agriculture and the natural sciences in 18th and 19th-century America are also clearly noteworthy. Again the proceedings of state academies of science, the transactions of scientific and learned societies, the accounts and discoveries of naturalists on expeditions sponsored by natural history museums. zoological societies, and government survey teams, and our rich collections of correspondence, reminiscences, and biographical material from those periods provide the source material for scholars. Especially important for the early history of medicine are the collections of the 19th-century physician Joseph Toner. In addition to his own correspondence, Dr. Toner collected a large number of letters of doctors and prepared many bibliographical and biographical studies in manuscript. The Library's psychoanalytic collections, which include the papers of Sigmund Freud and those of most of his European and American disciples, is among the finest in the world.

## WEAKNESSES/EXCLUSIONS

Because the Library limits its collecting of rare books and manuscripts in the life and physical sciences, concentrating its collections in those areas to materials in the history of technology, the Library's holdings of the manuscript collections of botanists, biologists, zoologists, and those working in the life sciences, including agriculture and medicine are relatively weak. The exceptions are the papers of E. O. Wilson, Gregory Pincus, Jacques Loeb, T. Swann Harding, William C. Gorgas, Luther Burbank, William T. Hornaday, Gifford Pinchot, and G. Hart Merriam.

Through the years, volumes in the Library's unlocked stacks containing irreplaceable hand-colored illustrations of flora and fauna from our collections of 18th- and 19th-century books and journals have been mutilated, and many priceless color plates removed. Materials hardest hit in the life sciences collections were our folio volumes and Curtis's Botanical Magazine.

A decision to stop cataloging monographic series as collected sets in the early 1970s has made access to our collections of the publications of university museums, zoological, botanical, and learned societies as well as state survey and natural history offices more difficult for readers. Many volumes in botanical, biological and zoological series have been unavailable to scholars or lost in arrearages awaiting classification. The fact that the Library does not have an organized or established system of claiming missing journal issues has also affected runs of scientific journals in recent years.

The push to reduce the Library's arrearages has resulted in many publications on the flora and fauna of various countries, most especially Australia and New Zealand, as well as other foreign taxonomic, ethological, and bioresearch studies--selected by recommending officers to strengthen our life science collections being given minimal level cataloging.

Last Update - October 1993