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**Disaster Preparedness:
An Imperative for Good Governance**

**Chapter One
Asset Management – The Foundation of a
Disaster Recovery Plan
(a.k.a. Where’s Your Stuff?)**

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PROPERTY RECORDS INDUSTRY ASSOCIATION

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Introduction

Land records held by Recorders are foundational documents of the property records industry.¹ These documents help to prove ownership via the chain of title, describe legal boundaries, and provide information about easements, covenants, restrictions, and liens on real property. Their legal and historical value is incalculable and undisputed; their content and safekeeping are critical to our nation's financial system.

State laws usually classify these documents as permanent or archival records. This designation, in turn, requires the Recorder to maintain these records in a legible form and provide public access to them in perpetuity using appropriate organizational, preservation, and retrieval strategies.

Since the documents generated in the land recording process are a key step in corroborating ownership of real estate, it is imperative that Recorders maintain their operations regardless of external forces. Among other things, this requirement necessitates a well developed business continuity plan that can be effectively implemented in the event of a disaster.

Following a disaster, the Recorder is one of the first offices contacted for services once health and safety concerns have been addressed. The reason for this is because establishing property rights and associated property value is critical when filing insurance claims or applying for other types of assistance.

If the disaster is localized (within the Recorder's building for example), the land records industry depends on the Recorder to resume operations as soon as possible. All too often the demands for rapid resumption of recorder functions are not recognized by those in charge of funding the recording office. Consequently, educating those responsible for budget allocation is an integral part in securing necessary funding for adequate records management activities.

Sound records back-up and recovery policies are essential to a sound business continuity plan. Asset management – knowing where your records are and what condition they are in – is the first step in establishing or evaluating back-up and recovery policies. If you do not know what you have and where it is, how can you preserve or restore it?

¹ In the United States, land document recording may take place at the State, City, Town, County, Borough, or Parish level. Depending on the jurisdiction, the Office of the Recorder may also be known as Recorder of Deeds, Registrar-General, Register of Deeds, Registrar of Deeds, Registrar of Titles, Deeds Registry, Auditor, or Deeds Office. In some states, the recording function is part of the county clerk's responsibilities. Throughout this paper, the term utilized for this role will simply be "Recorder."

The Current Environment

For purposes of this paper, some assumptions have been made about the nature of the records under discussion. The first assumption is that “the records” are related to real property: maps, deeds, mortgages, liens, etc. The second assumption is that there is an established law, regulation or policy that requires permanent retention of one or more copies of these records (for example, an electronic image plus an archival microfilm back-up).

These two assumptions would seem fairly straight forward until the realities of the recording environment are more closely examined. Most recording jurisdictions have land records on a variety of format types that stretch back well over 100 years (in some of the original 13 colonies, the land records go back to the 1600s). Records are likely to be stored in paper, microform, and electronic formats. More often than not, a combination of these formats is used. Within each one of these primary media types, there are numerous formats that may require specialized handling or storage requirements. In addition to the many format types and the need for an archival back-up, records are likely to be stored in multiple locations. To further complicate matters, over the years records have accumulated, decisions have been made, or projects undertaken, that affect their current disposition. Unfortunately, actions like these may not have been memorialized in any type of comprehensive inventory.

Recorders, records managers, archivists, or service companies with land records expertise will tell you that situations like these can result in a loss of intellectual control over the records. Or, to put it another way, where’s your stuff? Common problems include:

- An overall lack of knowledge of exactly what records exist, in which formats, and where they are stored.
- Archival back-up microfilm contains gaps such as missing rolls of film, years, or, in some instances, records series that were never filmed, etc.
- Silver original microfilm has been used as the working copy while the diazo duplicate is stored with the archival holdings.
- Lack of knowledge about whether records have been imaged, or have archival back-up.
- Filing cabinets or storage boxes full of records with no inventory.
- Records that have deteriorated to the point they cannot be recovered.
- Missing or incomplete index information.

Records Inventory

A records inventory is a detailed listing of an organization's records that could include information such as: media type, storage location, dates, and volume numbers. A records inventory could be extended to include capturing all pertinent information about the record at the detail level for purposes of appraising the record.

The steps in the records inventory process are:

1. Defining the inventory's goals. The intent of the inventory is important to defining its content. The goal may be to track the location of the assets or may also be for more sophisticated processes like space planning, preparing for conversion to other media, identifying records that require restoration, or identifying particular records management problems.
2. Defining the scope of the inventory.
3. Deciding on the information to be collected (the elements of the inventory).
4. Preparing an inventory form, or using an existing one.
5. Learning where the organization's files are located, both physically and organizationally.
6. Conducting the inventory.
7. Verifying and analyzing the results.

Defining the Inventory's Goals

The complexity and detail of an inventory are determined by the goals of the inventory. A basic inventory that identifies records series, media format, and storage location requires fewer details than an inventory used for space planning, conversion activities, or restoration projects. Different information needs to be collected if the inventory is used to track intermittent inspection activities.

Define the Scope of the Inventory

For purposes of this paper, the scope of the inventory is limited to land records and includes all formats (paper, microfilm, microfiche, aperture cards, microfilm jackets, and electronic media). An electronic records inventory should include the contents of system servers and any back-ups but may also include CDs, DVDs or any other magnetic media that may have land records or index data stored on them.

Decide on the Information to be Collected

Basic Inventory

Depending on the goal of the inventory, you will collect different types of information. A basic inventory that will be used as a guide to identifying the record series, media and location should include the following elements, at a minimum:

- 1. Series Title**

Use the generally accepted title; Deeds or Official Records for example.

- 2. Inclusive Dates**

Include the oldest and most recent dates of the records in each series. If there are breaks in the dates, indicate each inclusive range of dates.

- 3. Storage Medium**

Indicate whether the record medium is paper, microform, or electronic.

- 4. Series Location**

Give the precise location of the series. This location may include a building identifier, room identifier, shelf number, file drawer number, or the location identification provided by an off-site provider (private storage facility, the state archives, or a county records center for example).

The inventory should also identify the office that is maintaining the records, the date the inventory was taken (or updated), and the person conducting the inventory (including name and contact information).

While the Basic Inventory will provide disaster recovery information about the records and their location, a more detailed inventory will be a necessary and essential tool for intermittent inspection, planning for records projects, or space planning.

Inventory Information for Conversion, Restoration, or Inspection

Microfilm Examples:

Format: 16 or 35mm roll film, fiche, jacket

Generation: camera negative (original), duplicate (1st, 2nd, 3rd generation)

Polarity: negative or positive

Material: acetate or polyester

Film type: silver, diazo, or vesicular

Roll number

Document type

Beginning and ending record number for each roll

Date range

Physical condition

- Redox
- Vinegar syndrome
- Approximate number of splices and types
- Mold

Blipping scheme

Polysulfide toned

Paper Examples:

Beginning and ending record number for each book

Document type

Type of binding (post or sewn)

Physical Condition

- Water damaged or warped
- Content: handwritten, typed, Photostat

Inventory of Electronic Records

In addition to the inventory elements listed above, include the following in an inventory of electronic records (including index data) and electronic records systems:

- Name of the system
- Program or legal authority for creation of the system
- System control number
- Organization's program supported by the system
- Purpose of the system
- Data input and sources
- Major outputs
- Informational content (include where applicable):
 - Description of data
 - Persons, places, or things that are the subject of the system and the information maintained on those subjects
 - Geographic coverage
 - Time span

- Update cycle
- Date that the system was initiated
- Applications that the system supports
- How data are manipulated
- Key unit of analysis for each file
- Whether a public-use version is created
- Description of indexes, if any
- Hardware and software environment (current software version number)
- Name, office, telephone number, email, and location of the system manager
- Name, office, telephone number, email and room number of the person with the documentation needed to read and understand the system, including
 - Codebooks
 - File layouts
 - Other (specify)
- Location and volume of any other records containing the same information

The electronic records inventory should include any backup copies of the data, including the backup media (tape, disk, DVD, etc.), frequency of backup, type of backup software used (and its revision or version number), retention period, and off-site storage location.

Conclusion

Because of the critical role of property records in our economy, asset management was chosen as the first chapter of PRIA's Disaster Prevention and Recovery Best Practices effort.

Additionally, asset management is foundational to every other aspect of a sound disaster prevention and recovery plan. Basic records management functions are often postponed or overlooked when dealing with the daily demands of running an office. One cannot overstate, however, the importance of creating and maintaining an inventory of these irreplaceable documents.

An asset management plan can be as simple as making a list of media types, their contents, and storage location. Or the plan may be made more sophisticated by including detailed information about the quality and characteristics of the records and images within the collection. Different media types may require some customization of the asset management plan to accommodate the unique characteristics of the technology being used. Finally, the plan should be scalable and its intended use should dictate the path to follow.

As the custodian of the permanent records, the Recorder has sole responsibility for their safekeeping. Whether a disaster is local or widespread, the value of these documents must be appreciated by all who are responsible for assuring their preservation and access. Knowing what you have, where it is, and its condition is the first step in meeting this responsibility.

Definitions

Acetate - An older type of clear film base that supports the image forming emulsion and is made from cellulose acetate. A characteristic of this film base is that it can be easily torn and is subject to decay (see Vinegar Syndrome).

Aperture Card - A type of punch card with a cut-out window that contains a 35mm microfilm frame. The frame typically contains a map or engineering drawing but can contain several letter or legal size pages captured in a single exposure. The punched portion contains computer readable metadata about the frame and is often called Hollerith coding.

Archival, Archivaly Sound - Durable, permanent, and suitable for preservation in archives. Although no specific standards exist for labeling a material archivaly sound, it is understood to suggest that the material is very durable.

Archival Records - Records of enduring value, documenting the history and the development of the organization.

Blips - Small rectangular marks that appear under a microfilm frame. Their presence and size is used to differentiate the significance of the page in the corresponding frame.

Business Continuity - Business continuity addresses organizational recovery following a disaster. It assumes that prevention arrangements have failed and that an incident has occurred which has interrupted normal business to the extent that corrective action is required. For electronic records, the ability to quickly resume business operations is accomplished through the deployment of redundant hardware and software, the use of fault tolerant systems, and a solid backup and recovery strategy.

Disaster - A sudden, unplanned, calamitous event that creates an inability on the part of an organization to perform critical business functions for some period of time.

Disaster Recovery Planning - The advance planning and preparations necessary to minimize loss and ensure continuity of the critical business functions of an organization in the event of a disaster.

Disposition - Any means of changing the location or physical format of the records. It includes destruction by shredding or recycling, digitizing, microfilming, duplicating, or transferring.

Format - The physical form in which material appears – books, slides, photographs, film, recordings, etc.

Life Expectancy - The period of time that information on a storage medium can be expected to be accessed.

Medium (Media) - The physical form of recorded information. Includes paper, film, magnetic tapes, disks, CDs, etc.

Microfiche - A microform that is characterized by pages arranged in a matrix of rows and columns. Common microfiche formats include:

- 24X Planetary filming containing 98 pages in a 14 columns x 7 rows matrix
- 42X Computer Output Microfilm (COM) containing 208 pages in a 16 columns x 13 rows matrix
- 48X Computer Output Microfilm (COM) containing 270 pages in a 18 columns x 15 rows matrix

Microfilm - Photographic film, with specially designed emulsion used primarily to photograph documents and other information material.

Microfilm Jacket - A unitized microform similar to the microfiche in appearance and function, constructed of two clear sheets of clear plastic material, a header strip, and sealed on the edges and at 35mm or 16mm intervals forming channels for strips of microfilm.

Microform - A generic term for any media containing micro-images, e.g., roll microfilm, microfiche, or aperture card.

Polyester - A newer, clear film base that supports the image forming emulsion, with characteristics of greater strength and stability than its acetate predecessor.

Polysulfide Toning - A chemical treatment applied to microfilm that converts a portion of the image forming silver halide to silver sulfide. This process significantly increases resistance to image degradation process known as “redox.” (aka “measles”) This process is also known as “Brown Toning.”

Records Management - The systematic control of all records from their creation or receipt through processing, distribution, organization, and retrieval to their ultimate preservation and disposition.

Records Series - A group of identical or related records that are used and filed as a unit permitting evaluation as a unit for retention scheduling purposes.

Redox - Small colored spots, usually red or orange, caused by localized oxidation of the dark areas of silver microfilm. Also known as red spots, redox blemishes, or measles. These micro-spots are a result of improper storage conditions.

Retention Period - The length of time records must be kept before they are eligible for destruction or archival preservation. The retention period begins at a cut-off date (e.g., the end of the fiscal, calendar, or academic year) or is triggered by a cut-off event, such as a termination of employment, contract closure, etc.

Vinegar Syndrome - This slow form of chemical deterioration of cellulose acetate film is caused by poor storage conditions. It is so named because, as film degrades, it gradually shrinks, becomes brittle, and generates acetic acid, which evaporates into the air, producing a sharp, vinegar odor.

Resources

National Archives & Records Administration Frequently Asked Questions for records inventories: <http://www.archives.gov/records-mgmt/faqs/inventories.html>

Records Inventory Worksheet:

<http://dos.myflorida.com/media/31065/records-inventory-worksheet.doc>

Council of State Archivists: <http://www.statearchivists.org/>

The National Association of Government Archives and Records Administrators:

<http://nagara.org/>

The Image Permanence Institute: <http://imagepermanenceinstitute.org/index.shtml>

ARMA International: <http://www.arma.org/>

Association for Information and Image Management: <http://www.aiim.org/>

American National Standards Institute: <http://ansi.org/>

International Organization for Standardization: <http://www.iso.org/iso/home.htm>