



Interpret and Write Descriptions of Land. Land Description Types.

WELCOME

Welcome to the Interpret & Write Descriptions of Land online curriculum.



Five Self-Paced Modules

Intended for anyone working for a Federal Land Management agency with responsibility to interpret and write land descriptions.

Reference: Specifications for Descriptions of Land: For Use in Land Orders, Executive Orders, Proclamations, Federal Register Documents, and Land Description Databases documents

Highly recommended to complete modules in consecutive order.

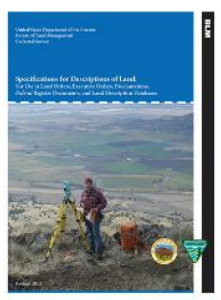
Welcome to the Interpret & Write Descriptions of Land online curriculum. This curriculum comprises five self-paced eLearning modules. It is intended for anyone working for a Federal Land Management agency, and others working in or adjoining Indian lands, and have the responsibility to interpret and write land descriptions. This course is designed to give you the fundamental working knowledge of interpreting and writing land descriptions to be used in legal documentation. The modules will reference information available in the Specifications for Descriptions of Land: For Use in Land Orders, Executive Orders, Proclamations, Federal Register Documents, and Land Description Databases documents. It is highly recommended that you complete the modules in consecutive order as information learned in one is built upon in the next. Skipping over modules is not recommended.

RESOURCES

Print Glossary:

1. Click the link.
2. Print a copy to a local printer.

References on screen: ***[glossary term](#)***



- [BLM Module Glossary](#)
- Specifications for Descriptions of Land
([BLM.gov](#) > *What We Do* > *More* > *Cadastral Survey* > *Tools*)
- Manual of Surveying Instructions
([BLM.gov](#) > *What We Do* > *More* > *Cadastral Survey*)
- Marine Managed Areas: Best Practices for Boundary Making (June 2006)
(www.coast.noaa.gov/products/mb_handbook/)
- General Land Office Records: Maps of Official Survey, Master Title Plats, Protraction Diagrams
([BLM.gov](#) > *Information Center* > *Land Records* > *General Land Office*)
- BLM State Offices
([BLM.gov](#) > *Our Offices/Centers* > "Select your local area" "What We Do" "Cadastral")
- Laws, Regulations, Policies
([BLM.gov](#) > *Information Center* > *Laws, Regulations, Policies*)

Glossary references in this module are identifiable on screen as bold, italic, and blue. Also note it is not our intent that this glossary would replace the BLM Glossary of Surveying and Mapping Terms or definitions for terms in the Specifications or Manual of Surveying Instructions. This glossary is intended as a learning aid specific to this course.

BLM has also created a document for your ongoing use called the Specifications for Descriptions of Land. As its full title suggests, it is For Use in Land Orders, Executive Orders, Proclamations, Federal Register Documents, and Land Description Databases. In this course, we will refer to it as the Specifications for Descriptions of Land, or just simply the Specifications.

This document includes information found in this course and can be used as a job aid to write and interpret land descriptions. It is easily portable as a pdf document which you can download and print or download and keep as a document on a laptop, smart phone, or tablet for future reference. The remaining optional resources are included in the BLM Module Glossary for your convenience. There you will find paths to access the resources online and descriptions of their benefits of its use to you on the job.

If you ever have questions about interpreting and writing descriptions of land, you are advised to reach out to your Agency Land Surveyor.

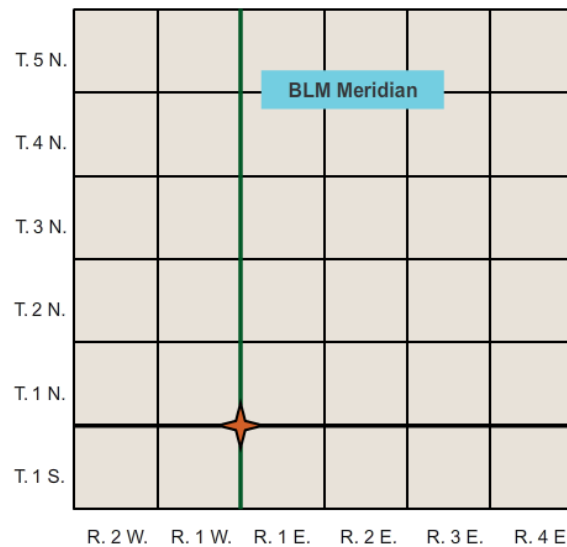
MODULE EXERCISES AND NAVIGATION

Maps and diagrams used:

- Are a combination of mock-ups and actual maps
- Teach specific concepts regarding the lesson content

Introduced to Principal Meridians.

BLM Meridian for learning purposes only.



Please note that the maps and diagrams used for the exercises are a combination of mock-ups and actual maps. The mock-ups have been created to teach specific concepts regarding the lesson content. As part of the exercises, you will be introduced to Principal Meridians. You will see on the mock maps a fictitious meridian called the BLM Meridian. This meridian is used for learning purposes only.

MODULE OVERVIEW



This module provides foundational historical information on the evolution of parceling out land and introduces the learner to the three main land description types.

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Objectives

The objectives of this module are to help you:

- Comprehend the evolution of land description
- Identify basic land description types
- Comprehend the importance of accurate land descriptions



The objectives of this module are to help you; comprehend the evolution of land description, to identify basic land description types, and comprehend the importance of accurate land descriptions.

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Lesson 1

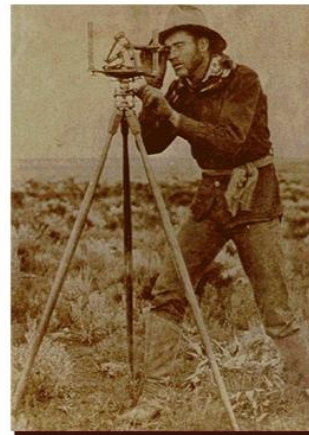
Description of Land in History

Lesson one: Description of Land in History

Objectives

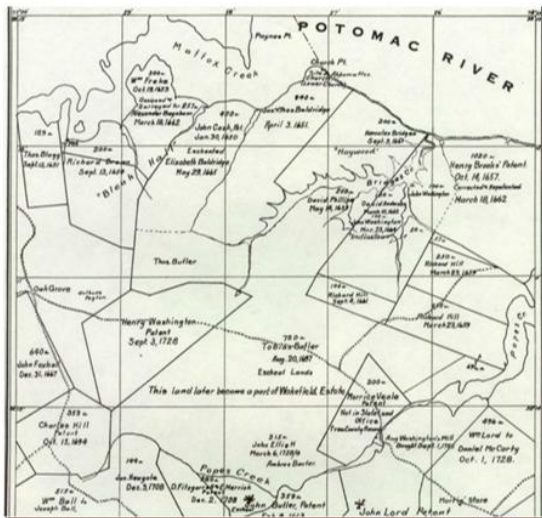
After completing this lesson, you should be able to:

- Comprehend the evolution of land description

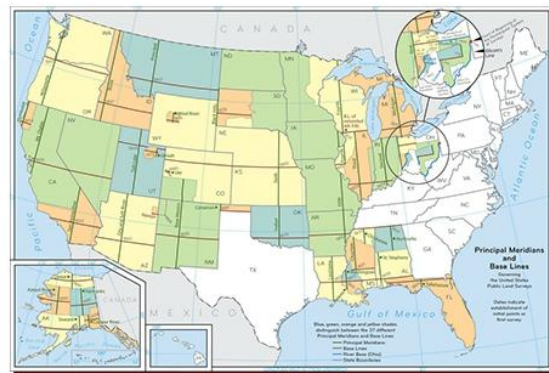


After completing this lesson, you should be able to; comprehend the evolution of land description.

Metes-and-Bounds

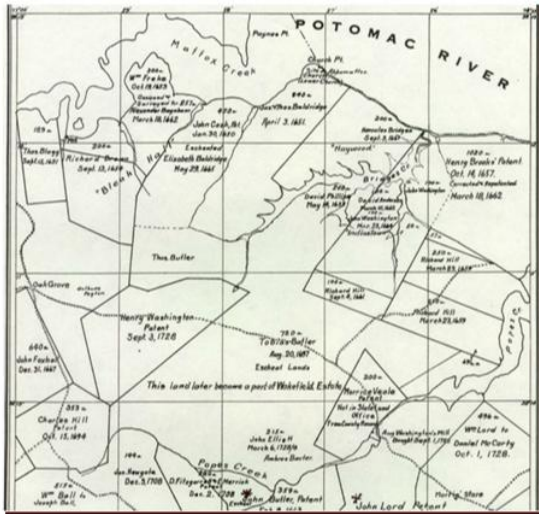


Public Land Survey System



Two of the land description types you will learn about are the metes-and-bounds survey system and rectangular surveys of the Public Land Survey System. These two types will be the focus throughout this curriculum. In this lesson, we will begin with a brief historical overview on the evolution of land tenure and western expansion.

BLM Module 1: Land Description Types



Metes:

- Measurement of
- To distribute or apportion by measure; allot; dole, or simply "to measure"

Bounds:

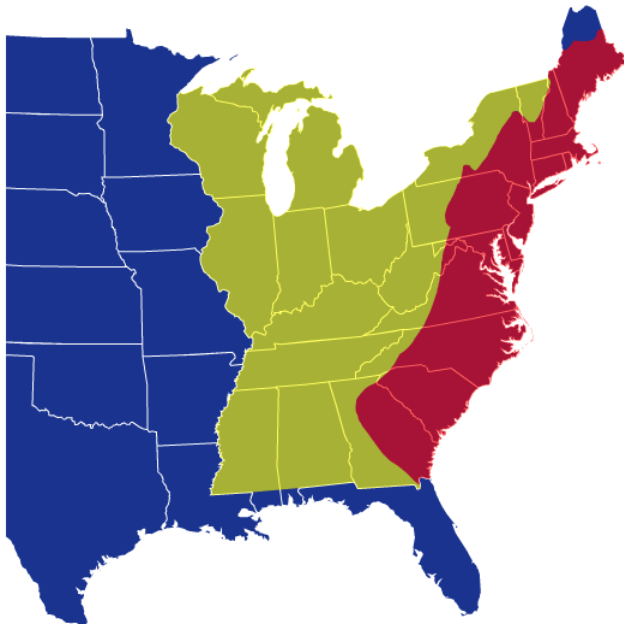
- Identifies limits of parcel by describing natural features or boundaries of adjacent land
- Are the limits or confines of lands being described

Created irregular shaped parcels needed to sustain life:

- Water
- Arable land
- Access to transportation routes
- Other valuable resources

Subsequent parcels from original grants were "bounded" by earlier land sale.

The system of Metes (measurement of) and Bounds (identifying the limits of the parcel by describing natural features or the boundaries of the adjacent land) was brought to the U.S. by the early colonists and was used in the original 13 colonies to convey land out of the large land grants to individuals or entrepreneurs. Metes is an old English word meaning to distribute or apportion by measure; allot; dole, or simply "to measure." The Bounds are the limits or confines of the lands being described. The system created irregular shaped parcels within the original large grants from the European Sovereigns which contained the land needed by the settlers to sustain life – water, arable land, access to transportation routes, and other valuable resources. Subsequent parcels conveyed from the original grants were then "bounded" by the earlier land sale.

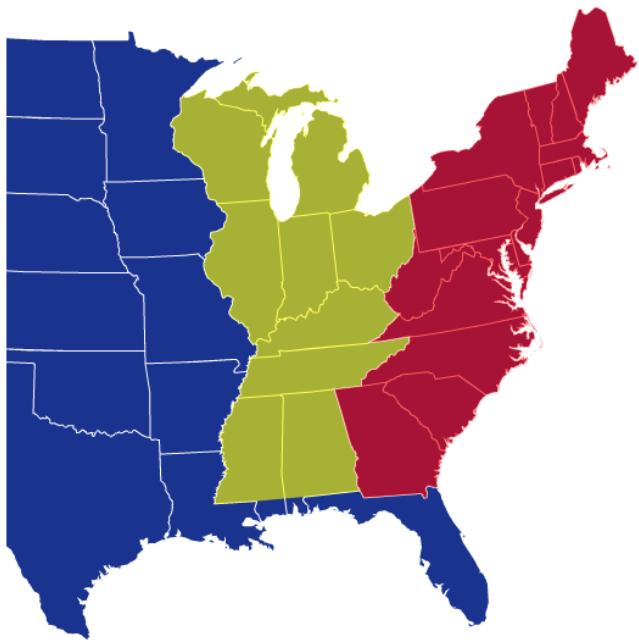


Massachusetts, Connecticut, New York, Virginia, North and South Carolina, and Georgia had land charters from Atlantic seaboard to Mississippi River.

Remaining colonies had limited claims to territories along Atlantic coast.

When the original 13 colonies broke free from Britain, a number of them – Massachusetts, Connecticut, New York, Virginia, North and South Carolina, and Georgia – had land charters issued by the British monarchy that included lands extending from the Atlantic seaboard to the Mississippi River. The remaining colonies had much more limited claims to territories along the Atlantic coast.

BLM Module 1: Land Description Types



States with claims to western lands agreed to cede lands to Federal government.

Federal Public Domain is land held by government for disposition and formation of new states.

After much political wrangling, the states with claims to western lands agreed to cede those lands to the newly formed Federal government. This was the beginning of the Federal Public Domain, a vast quantity of land held by the government for disposition and eventual formation of new states.

Congress of the Confederation enacted the Land Ordinance of 1785.

A new system for surveying and disposing of public domain lands.

Federal government would sell the lands at auction to raise money to pay off war debts.



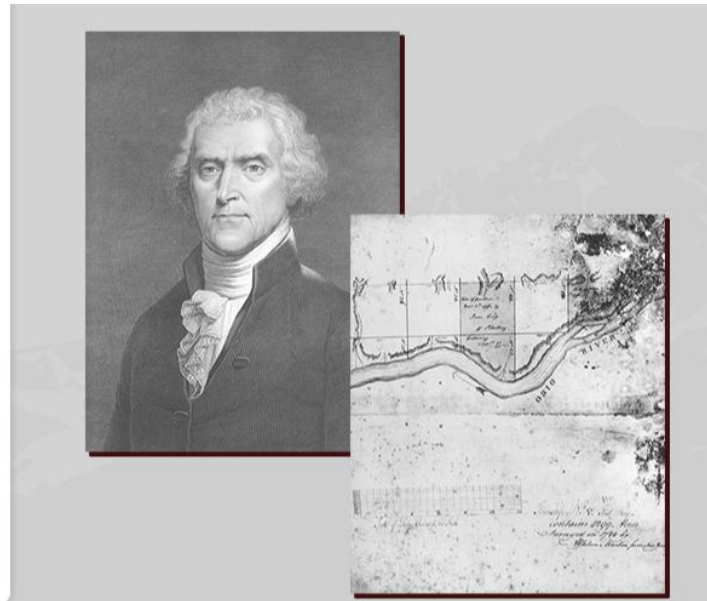
In May of 1785, Congress of the Confederation enacted the Ordinance of 1785. This enactment was a new system for surveying and disposing of public domain lands. The reigning idea was that the Federal government would sell the lands at auction in order to raise money to pay off war debts.

BLM Module 1: Land Description Types

This statute impacted physical appearance of America more than any other legislation.

Influenced by a committee headed by Thomas Jefferson.

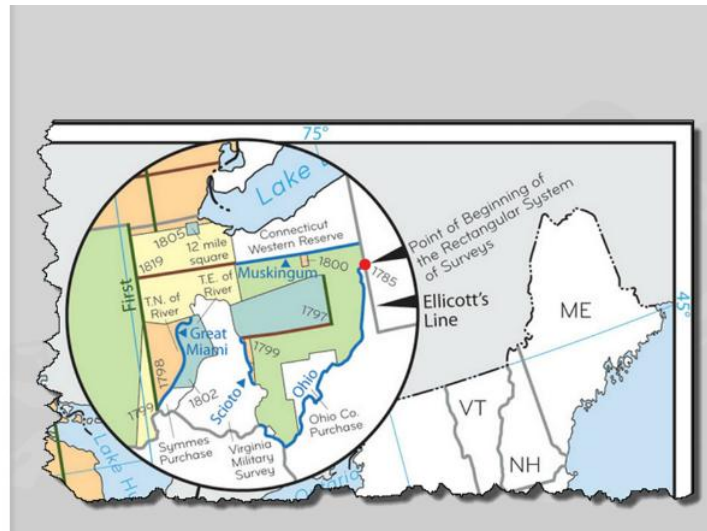
A rectangular system of **cadastral survey** for public lands was created using parallels of latitude and meridians to divide large areas of public land.



This statute probably had a more profound impact on the physical appearance of America than any other piece of legislation before or since. Influenced by the ideas of a committee headed by Thomas Jefferson, a rectangular system of cadastral survey for public lands was created using parallels of latitude and meridians to divide large areas of public land.

A north-south line – a **principal meridian** – was to be run and a base line westward – **the geographer's line** – was to be surveyed.

New land surveying system was used in the Northwest Territory that later became Ohio.



Starting from the point where the Ohio River crosses the Pennsylvania border, “a north-south line – a principal meridian – was to be run and a base line westward – the geographer’s line – was to be surveyed.” This new land surveying system was used in the then called Northwest Territory that later became the state of Ohio.

BLM Module 1: Land Description Types

The rectangular survey method to dispose land had begun.

Nearly all Federal public domain was surveyed into this grid system.

Most farms and ranches in the mid-west and western U.S. are "square" in shape.

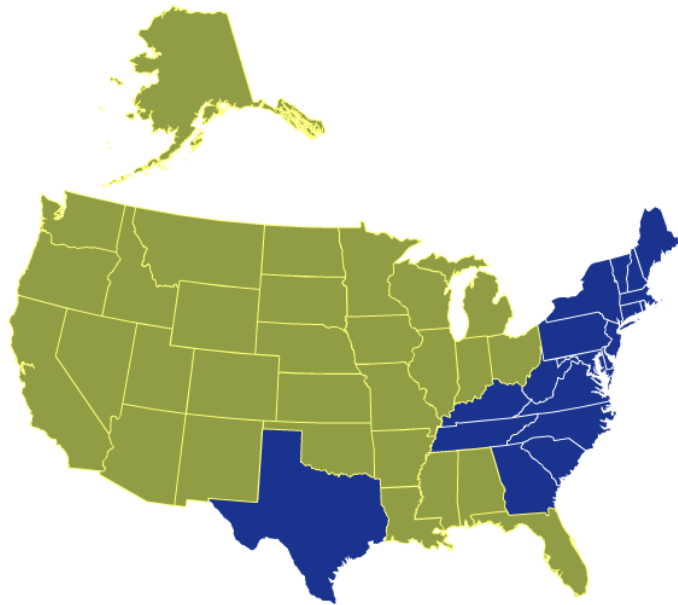


The rectangular survey method to dispose land had begun. Nearly all the land in the Federal public domain was eventually surveyed into this neatly laid out grid system. This is why most farms and ranches in the mid-west and western U.S. are "square" in shape.

Public Land Survey System (PLSS)

Used in all parts of the United States acquired by the Federal Government by cession from the states, treaty, and purchase.

Were all original public domain States where this survey system was used.



This system became known as the Public Land Survey System or PLSS. This rectangular system was used in all parts of the United States acquired by the Federal Government by cession from the states, treaty, and purchase. The highlighted states were all original public domain States where this survey system was used.

BLM Module 1: Land Description Types

PLSS extended as basis for:

- Identification
- Administration
- Disposal of remaining Federal interest lands

Basis for identification and description of lands granted or sold to private individuals, States, and other entities.



PLSS extended over these areas as the basis for the identification, administration, and disposal of the remaining Federal interest lands. It is the basis for the identification and description of the lands granted or sold to private individuals, States, and other entities.

Actual surveys executed under contract by surveyors employed by the General Land Office (GLO), or by the BLM.



The actual surveys were executed under contract, or by surveyors employed by the General Land Office (GLO), predecessor to the BLM, or by the BLM.



BLM is the Nation's surveyor.
Maintain current and historical information about land ownership in the U.S.



Titles begin with a land description established by an original cadastral survey.
Security of legal title to land is fundamental.



The BLM is the Nation's surveyor and maintains extensive current and historical information about land ownership in the United States. Most titles to land, public or private, begin with a land description established by an original cadastral survey. Security of legal title to land is the fundamental object of the cadastral surveyor's work.



Must be knowledgeable of requirements for types of land descriptions.

Descriptions must be in proper:

- Format
- Terms
- Phrases



Clearly state the intent, with qualification.
Ensure content of description is free of ambiguity.
Ambiguous descriptions are future boundary disputes.



If you are preparing land descriptions, you must be knowledgeable of the requirements for the various types of land descriptions. Descriptions must be in the proper format, terms, and phrases and clearly state the intent, with qualification, to ensure the content of the land description is free of ambiguity. The ambiguous descriptions of the past are the boundary disputes of the future.

Many Land Ordinances, Purchases, and Measuring Tools



Over the years there have been many land ordinances, land purchases, and varied land measuring tools that have shaped the boundaries of our nation.

Land Reform Movement



Free Small Homesteads

Claim 160 Acres



Title to the Land

Perhaps the most significant legislation disposing of Federal land was the Homestead Act of 1862. This legislation grew out of a land reform movement of the 1830s and 1840s. Advocates argued that the government should grant free small homesteads to any citizen who relocated to encourage westward expansion.

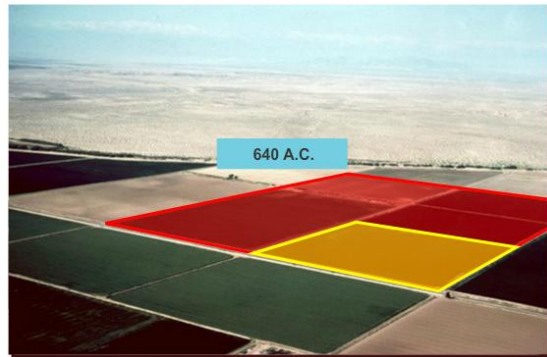
The original Act of 1862 allowed any citizen to claim 160 acres of unsold, but previously surveyed land. If the homesteader inhabited the land and cultivated it for five years, he received title to the land without any payment other than filing fees.



Preemptors

\$1.25 per Acre

Production Agriculture



Homesteaders who had been "preemptors" on Federal land could also get title to the land before five years were up, by converting the claim to a preemption claim and paying \$1.25 per acre.

Congress eventually realized that 160 acres was too small to sustain productive agricultural operations in arid areas on the Great Plains, where there is not enough rainfall for crop production. Later homestead acts authorized larger claims of up to 640 acres. The Homestead Laws alone accounted for the transfer from Federal ownership of approximately 278 million acres.

SkillCheck

Place the events in the correct historical order.

<input type="text"/>	First Event	A. Homestead Act
<input type="text"/>	Second Event	B. PLSS used in Public Land States
<input type="text"/>	Third Event	C. Colonial Surveys
<input type="text"/>	Fourth Event	D. Federal Government sells land
<input type="text"/>	Fifth Event	E. Public Land Ordinance of 1785

Correct Order: C. Colonial Surveys, E. Public Land Ordinance of 1785, B. PLSS used in Public Land States, D. Federal Government sells land, and A. Homestead Act.



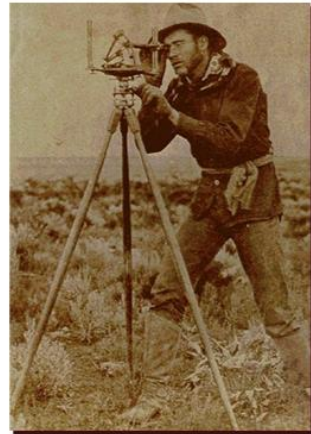
The slide header features the Bureau of Land Management logo on the left, which includes the text "NATIONAL SYSTEM OF PUBLIC LANDS", "U.S. DEPARTMENT OF THE INTERIOR", and "BUREAU OF LAND MANAGEMENT" above a stylized landscape of mountains, a river, and a tree. To the right of the logo, the text "Lesson 2" is displayed in white on a dark grey background, and "Types of Land Descriptions" is displayed in white on a green background. Below the title, three small images are arranged horizontally: a modern surveyor using a tripod-mounted instrument, a historical map, and a circular seal with the text "U.S. DEPARTMENT OF THE INTERIOR" and "UNLAWFUL TO DISTURB".

Lesson two: Types of Land Descriptions.

Objectives

After completing this lesson, you should be able to:

- Identify basic land descriptions for the rectangular surveys, metes-and-bounds surveys, and lot and block surveys
- Comprehend the importance of accurate land descriptions



After completing this lesson, you should be able to; identify basic land descriptions for rectangular surveys, metes-and-bounds surveys, and lot and block surveys, and comprehend the importance of accurate land descriptions.

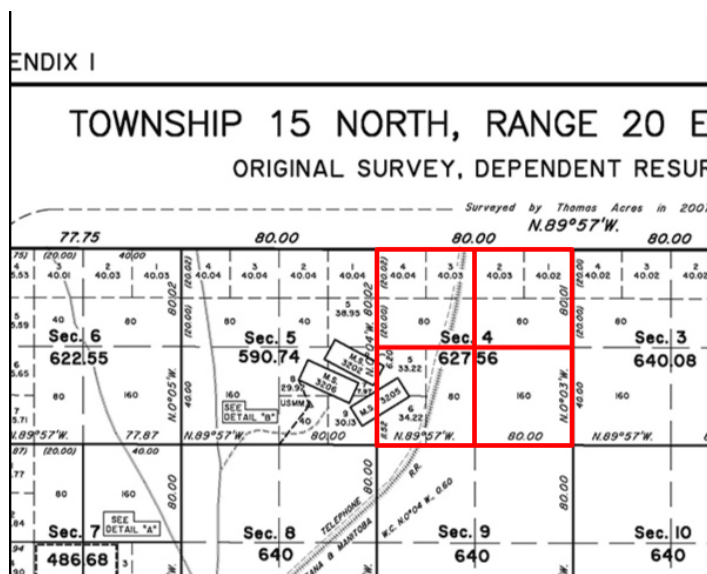
BLM Module 1: Land Description Types



Three general types:

- Rectangular Surveys
- Metes-and-Bounds Surveys
- Lot and Block Surveys

Descriptions of land are of three general types, with some land descriptions combining two or more of these types. These are the: Rectangular Surveys, the Metes-and-Bounds Surveys, and Lot and Block Surveys. Let's begin with an overview of Rectangular Surveys.



- Lands surveyed under the PLSS and referenced in *subdivisions of Townships*
- *Sections* can be divided into *Aliquot* parts of the *Rectangular Survey System*

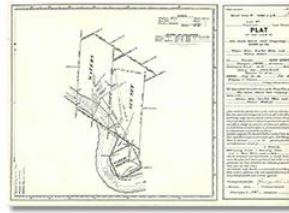
Specifications Reference: Rectangular Surveys, Chapter II

Most lands surveyed under the PLSS are referenced in subdivisions of Townships established by the General Land Office or BLM. The standard unit of these subdivisions is referenced as a section. Sections can be further divided into aliquot, or equal, parts of the Rectangular Survey System. You will learn more about the Rectangular Survey System in module 2. Let's now continue with Metes-and-Bounds.

BLM Module 1: Land Description Types



Mineral Survey



Millsite



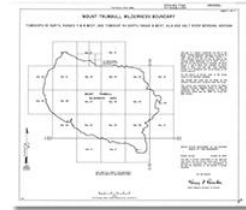
Reservations



Private Land Grant



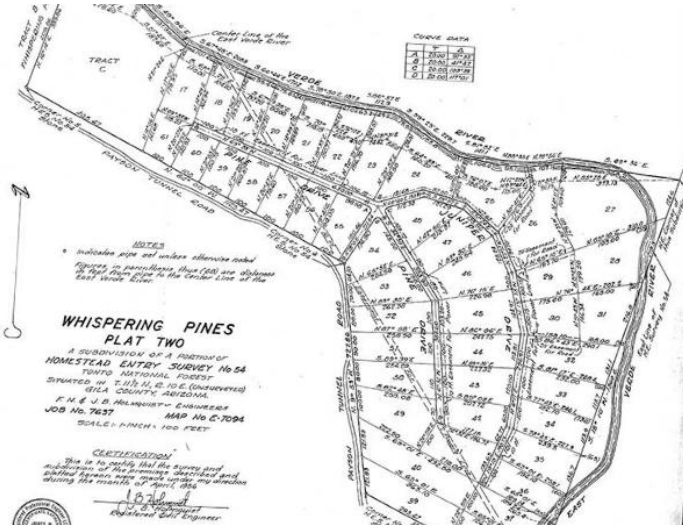
Homestead Entry Survey



Wilderness Area

Specifications Reference: Metes-and-Bounds Surveys, Chapter III

In PLSS States, most Metes-and-Bounds Surveys are cases of nonrectangular surveys used to define the boundaries of irregular areas of land that are not conformable to legal subdivisions. Examples include: mineral surveys and millsites, Reservations, land grants made prior to Federal Ownership, forest-homestead entry surveys, congressionally designated special areas such as wilderness areas. You will learn more about the Metes-and-Bounds Survey in module 3. Lastly, let's cover the Lot and Block Survey.



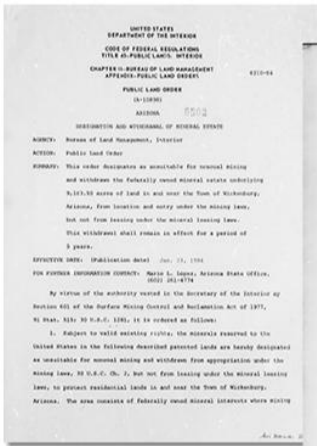
- Private sector
- Federal **townsite**
- Land division referred to as **lot**
- Lots referenced by residential subdivision names

Specifications Reference: Lot and Block Descriptions, Chapter IV

Lot and Block Surveys are primarily created within the private sector; however, Federal townsites surveys, and Alaska Native Village Corporation conveyance of lands surveys fall into this category also. These types of descriptions create land divisions of varying acreage sizes commonly referred to as “lots” and generally have a “lot” identifier that could be numeric or alpha characters or a combination. The lands are described by reference to named subdivisions, such as “Glenwood Acres” or “Whispering Pines”. To keep our terms straight, we will call these residential subdivisions. Residential subdivision plats or maps are filed in a public office, usually at the County Recorder’s Office. You will learn more about the Lot and Block Survey in module 4. Next you will learn about the importance of how to describe land and your responsibility to write good descriptions.

BLM Module 1: Land Description Types

Public Land Order



Proclamation



Executive Order



Keep descriptions:

- Simple
- Clear
- One interpretation

Written for:

- Land orders
- Proclamations
- Communication of land boundaries

Before you begin writing descriptions of land, you must be aware that your completed descriptions must be simple, clear, and subject to one, and only one, interpretation. Descriptions of land portions are written for and included in a variety of documents such as land orders, proclamations, and any type of documentation crucial to communicating the land boundaries. Therefore, simplicity and clarity of descriptions of land are paramount.



Importance of:

- Terminology
- Punctuation
- Description arrangement
- Paragraphing techniques

You may be one of the many individuals across our nation tasked with interpreting and writing descriptions of land. Your peer writers vary from working in government agencies or for private businesses to those working in real estate, and your co-workers resource management and project planning. Hence, it is important for everyone tasked with writing descriptions of land to be able to use the proper terminology, punctuation, description arrangement, and paragraphing techniques.

BLM Module 1: Land Description Types



The description of land must:

- Furnish sufficient information for identification of spatial limits or area defined
- Contain “clear intent” and “proper qualification” of lands being described for present and future
- Can be located on the ground by a land surveyor

The description of land must furnish sufficient information for the identification of the spatial limits or area defined by a land surveyor. It must contain “clear intent” and “proper qualification” of the lands being described for not only in the present, but most importantly, for the future and without ambiguity. The definition of a legally sufficient real property description is one that can be located on the ground by a land surveyor and excludes all other properties.



R. H. Skelton
The Legal Elements of Boundaries and
Adjacent Boundaries

“The only rule that can be definitely given for the writing of deed descriptions is— The scrivener should place himself as nearly as possible in the seats which will be occupied by those who, twenty years hence, attempt to lay down the grant—describe the land conveyed with such clarity and certainty that the intention as effectively expressed will be as significant to the next generation as it is to the writer.”

Author R. H. Skelton wrote in his book, *The Legal Elements of Boundaries and Adjacent Boundaries*, “The only rule that can be definitely given for the writing of deed descriptions is— The scrivener should place himself as nearly as possible in the seats which will be occupied by those who, twenty years hence, attempt to lay down the grant—describe the land conveyed with such clarity and certainty that the intention as effectively expressed will be as significant to the next generation as it is to the writer.”

BLM Module 1: Land Description Types



Description checked for:

- Correctness of legal subject matter
- Reviewed against citation of appropriate statutes, previous land orders, and proclamations
- May be referenced in Federal court decisions

Use plain technical terms, terminology, and corner identification in accordance with chapter IV of the 2009 Manual of Surveying Instructions.

Subject to Review by Legal Expert

Once drafted, a proclamation, public land order, or Executive order is subject to review by a legal expert. Your description of the land will be checked for correctness of the legal subject matter, reviewed against citation of the appropriate statutes, previous land orders and proclamations, and may someday be referenced in Federal court decisions. So take special care when formulating a description of land, tract or area and use plain technical terms, terminology, and scheme of corner identification in accordance with chapter IV of the 2009 Manual of Surveying Instructions.



Considers technical sufficiency, form, feasibility, and practicability of boundary.

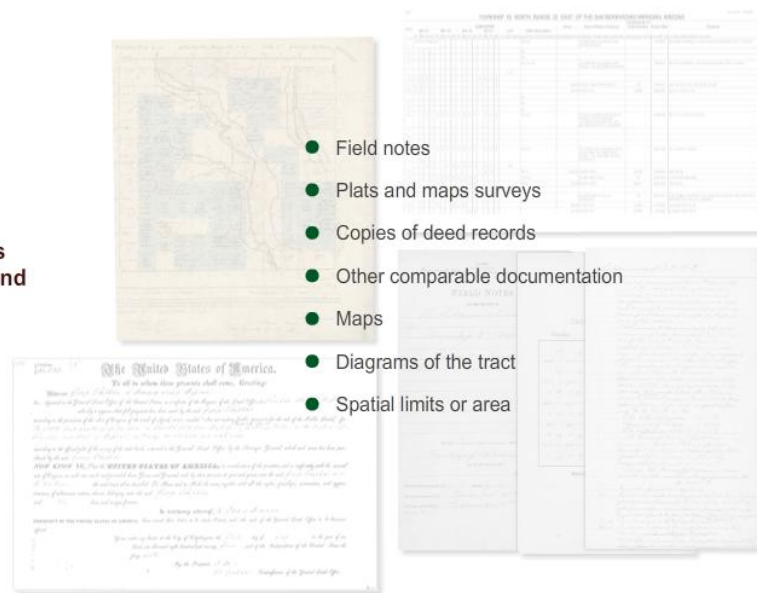
Description should be reviewed by a boundary survey expert.



Each description of land, as a minimum, should be reviewed by a boundary survey expert. That review considers not only the technical sufficiency and form of the description of land but also the feasibility and practicability of the boundary from the viewpoint of proper administration.

BLM Module 1: Land Description Types

Originating bureau or agency is responsible for the authenticity and accuracy of the data.



It is also important to note that the originating bureau or agency is responsible for the authenticity and accuracy of the data upon which the description of lands are based. Field notes, plats and maps surveys, copies of deed records, or other comparable documentation, together with maps, diagrams of the tract, spatial limits, or area to which the description refers must be included for review and reference as applicable.

SkillCheck

Match the land description type to its definition.

<input type="text"/>	Rectangular Survey	A. Surveys used to define the boundaries of irregular areas of land.
<input type="text"/>	Metes-and-Bounds Survey	B. The lands are described by reference to subdivisions of PLSS Townships.
<input type="text"/>	Lot and Block Survey	C. Residential subdivision surveys filed in a public office.

Correct Answers: A. Metes-and-Bounds Survey, B. Rectangular Survey, and C Lot and Block Survey.

Summary

Having completed this module, you should now be able to:

- Comprehend the evolution of land description
- Identify basic land description types
- Comprehend the importance of accurate land descriptions



Having completed this module, you should now be able to; comprehend the evolution of land description, to identify basic land description types, and comprehend the importance of accurate land descriptions.

Quiz Answer Key

1. If you ever have questions about interpreting and writing descriptions of land, you are advised to reach out to your _____.
- A. Agency Land Surveyor
 - B. Regional BLM Director
 - C. Local County Recorder's Office
 - D. Associate State Director

Correct Answer: A. Agency Land Surveyor

2. Which of the following is the correct historical order of the events?
- A. Colonial Surveys, Public Land Ordinance of 1785, Federal Government sells land, PLSS used in Public Land States, and Homestead Act
 - B. Colonial Surveys, Federal Government sells land, Public Land Ordinance of 1785, Homestead Act , and PLSS used in Public Land States
 - C. Colonial Surveys, Public Land Ordinance of 1785, PLSS used in Public Land States, Federal Government sells land, and Homestead Act

Correct Answer: C. Colonial Surveys, Public Land Ordinance of 1785, PLSS used in Public Land States, Federal Government sells land, and Homestead Act

3. Which land description type describes the land by reference to subdivisions of PLSS Townships?
- A. Rectangular Survey
 - B. Metes-and-Bounds Survey
 - C. Lot and Block Survey

Correct Answer: A. Rectangular Survey

4. Which land description type uses surveys to define the boundaries of irregular areas of land?
- A. Rectangular Survey
 - B. Metes-and-Bounds Survey
 - C. Lot and Block Survey

Correct Answer: B. Metes-and-Bounds Survey

5. Which of the following statements are true for the Land Ordinance of 1785? (Select all that apply.)
- A. Provided an orderly method of survey of Federal land so it could be sold.
 - B. Was written by Thomas Jefferson in rebellion to Europe sovereignty.
 - C. Allowed any citizen to claim 160 acres of unsold, but previously surveyed land.
 - D. The Federal public domain land was to be surveyed into a grid system.

Correct Answers: A. Provided an orderly method of survey of Federal land so it could be sold, and D. The Federal public domain land was to be surveyed into a grid system.

- 6. Residential Subdivision Surveys by lot and block method are _____. (Select all that apply.)**
- A. Surveys of millsites, Reservations, and wilderness areas**
 - B. Always recorded at BLM State Offices**
 - C. Primarily used in the private sector**
 - D. Recorded in County Offices**

Correct Answers: C. Primarily used in the private sector, and D. Recorded in County Offices.

- 7. Which of the following describe a Township? (Select all that apply.)**
- A. A subdivision for residential lots**
 - B. A subdivision of land defined by a survey in the PLSS**
 - C. In the PLSS, land surveyed into a grid system**
 - D. Land reserved for preemptors during the Homestead Act**

Correct Answer: A subdivision of land defined by a survey in the PLSS, and C. In the PLSS, land surveyed into a grid system.

- 8. Which of the following are required for an adequate land description?**
- A. Must be written by a land surveyor**
 - B. Must be reviewed by a legal expert**
 - C. Can be located on the ground by a land surveyor**
 - D. All of the above**

Correct Answer: C. Can be located on the ground by a land surveyor

- 9. Which of the following are true regarding boundary disputes? (Select all that apply.)**
- A. Result from land descriptions which adequately describe only one property.**
 - B. Result from land descriptions that are not in the proper format, do not use proper terms and phrases or do not clearly state the intent.**
 - C. Only found in lot and block surveys by the private sector.**
 - D. Results of ambiguity.**

Correct Answers: B. Result from land descriptions that are not in the proper format, do not use proper terms and phrases or do not clearly state the intent., and D. Results of ambiguity.

- 10. What were the outcomes of the Homestead Act of 1862? (Select all that apply.)**
- A. Any citizen was allowed to claim 160 acres of unsold, but previously surveyed land.**
 - B. If the homesteader inhabited and cultivated the land for five years, he received title to the land without any payment other than filing fees.**
 - C. "Preemptors" on Federal land could also get title to the land without any payment other than filing fees.**
 - D. Ceded Colonial Survey land to the Federal Government.**

Correct Answers: A. Any citizen was allowed to claim 160 acres of unsold, but previously surveyed land, and B. If the homesteader inhabited and cultivated the land for five years, he received title to the land without any payment other than filing fees.