Non-Rectangular Surveys

2009

UNIT 1 STUDY GUIDE

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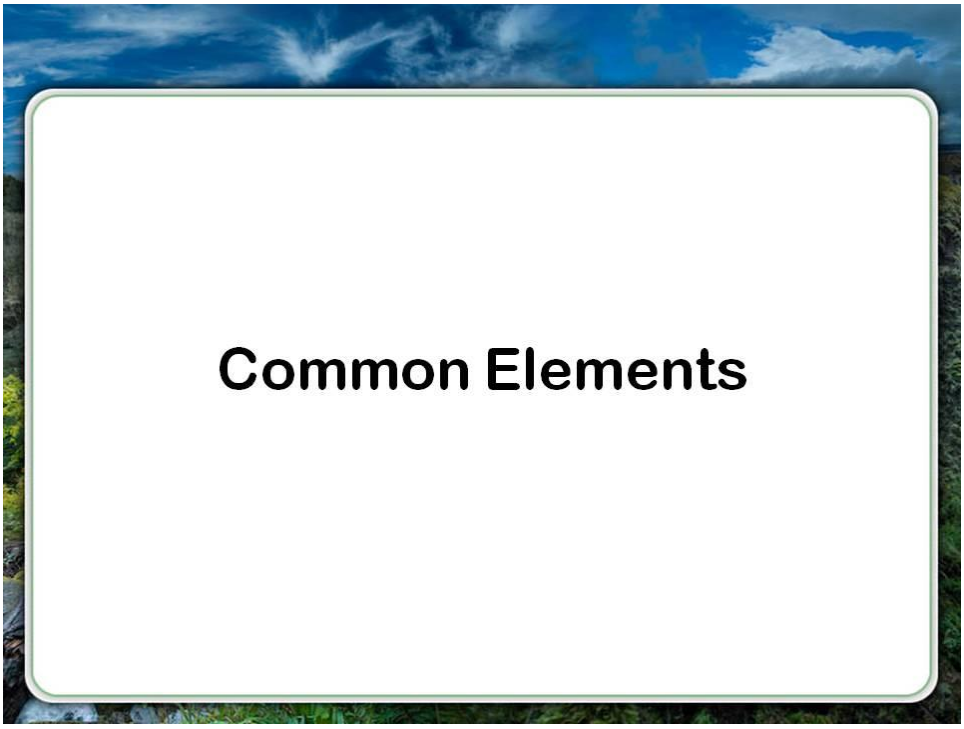
Table of Contents

Common Elements, Part 1

Introduction

Hello, I am Ron Scherler. Welcome to the advanced cadastral survey four (ACS-IV) course, non-rectangular surveys. This is the first segment of the course titled Common Elements. As we put together this class on non-rectangular surveys, we realized there were several common themes that ran through them.



Instead of repeating these issues, we decided to combine these into one segment of the course. We'll touch on some of these issues again as we go through the course and the individual non-rectangular surveys, but we wanted to kind of give an overview and talk about these in general terms at the beginning.

Objectives

Let us look at our objectives for this course.

- Understand the importance of the application process; survey and authority are unique for each non-rectangular survey.

In the non-rectangular survey system, there are a number of different processes or ways that surveys are performed. Each survey has its own unique process, record system, and type of survey. Even as far as monumentation and how the records are recorded. It is important for you to understand that so when you deal with them you know where to get the records.

- Explain how the records and evidence collection are unique to the various non-rectangular surveys.

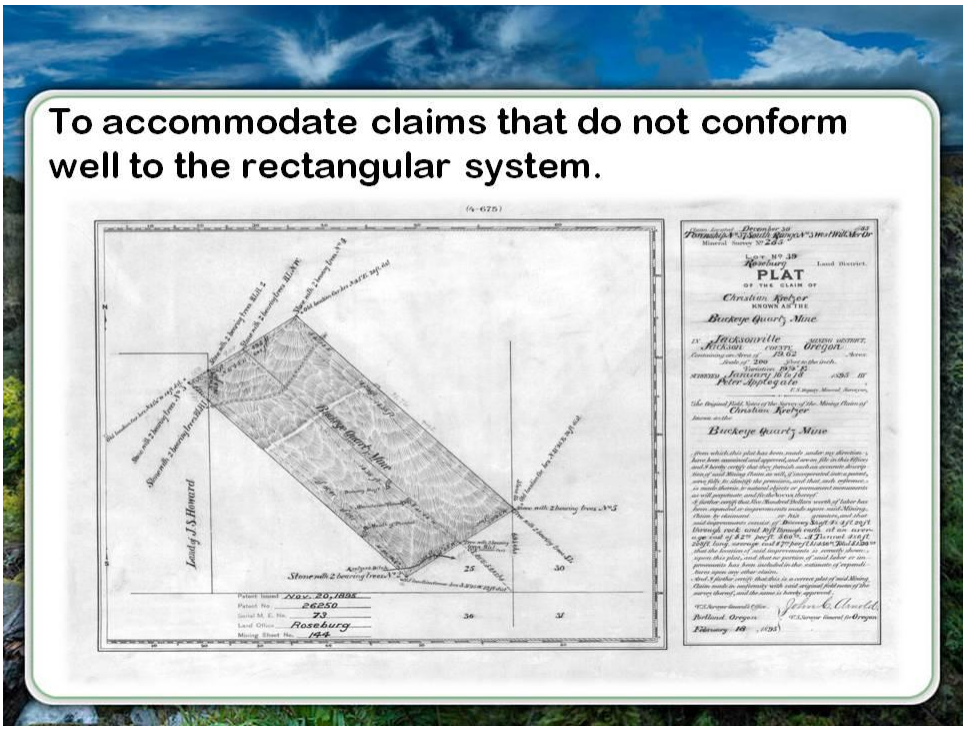
- Understand the importance of complete documentation with resurvey methods.

With the non-rectangular survey system, it is extremely important that the documentation be there because they are unique and have a unique restoration methods record system.

Why Were the Non-rectangular Surveys Created?

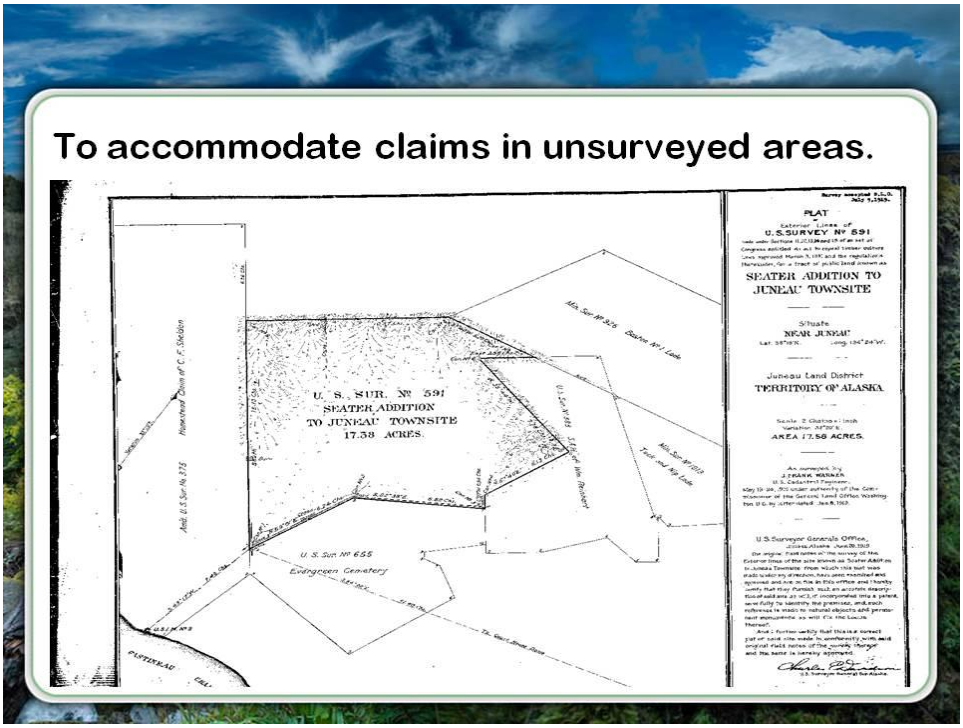
If you look at the original legislation of the 1785 Act that created the public land survey system, these non- rectangular surveys did not exist. The original act created the rectangular survey system, township, range, and sections. It did not create these non-rectangular surveys. They came along as the need arose

To accommodate claims that did not conform well to the rectangular survey system. Some claims are not going to fit into the rectangular system.



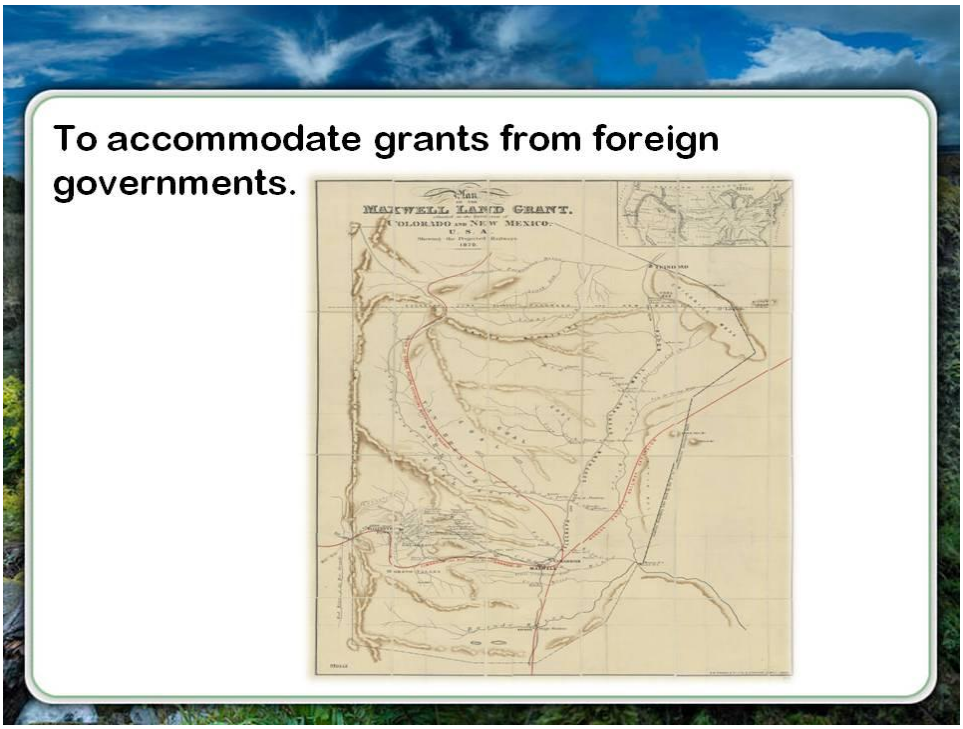
To accommodate claims in unsurveyed areas. Sometimes development and settlement got way ahead of the survey system. We needed some way to survey land, convey land, and not stymie the development and the progress that was being made.

This is a townsite in Alaska where there was no rectangular survey system at the time so we needed a way to survey that townsite and keep the city growing.

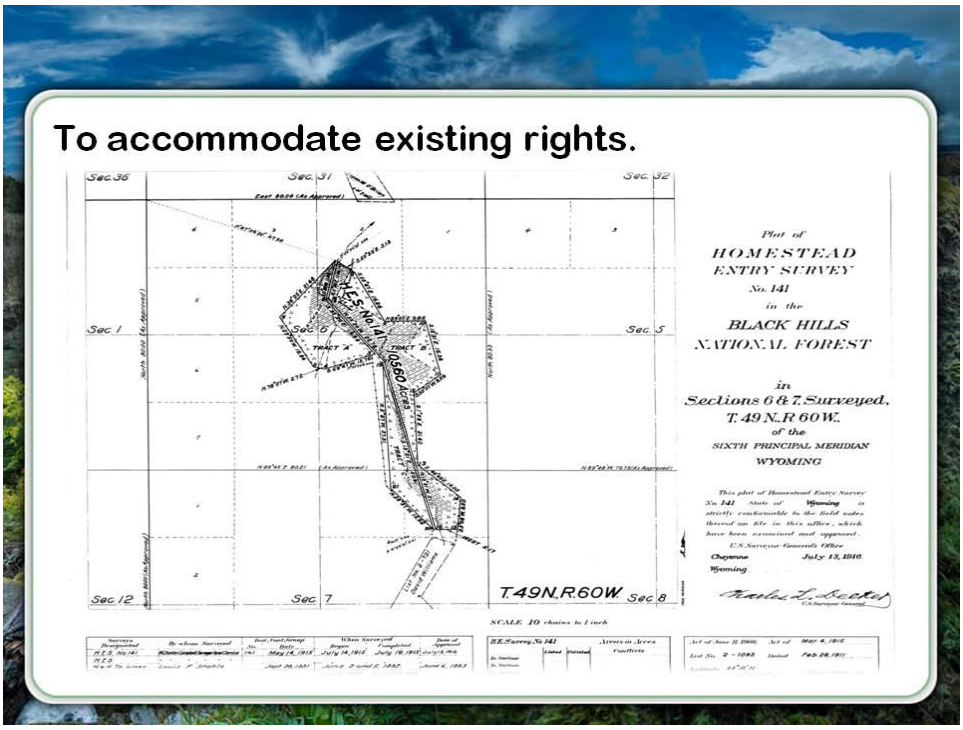


To accommodate grants from foreign governments. We have grants from France, Spain, Mexico, and Russia. Because those obviously were not going to be described by the public land survey system.

They were described generally by metes and bounds by topographic features someway and we needed to deal with those.

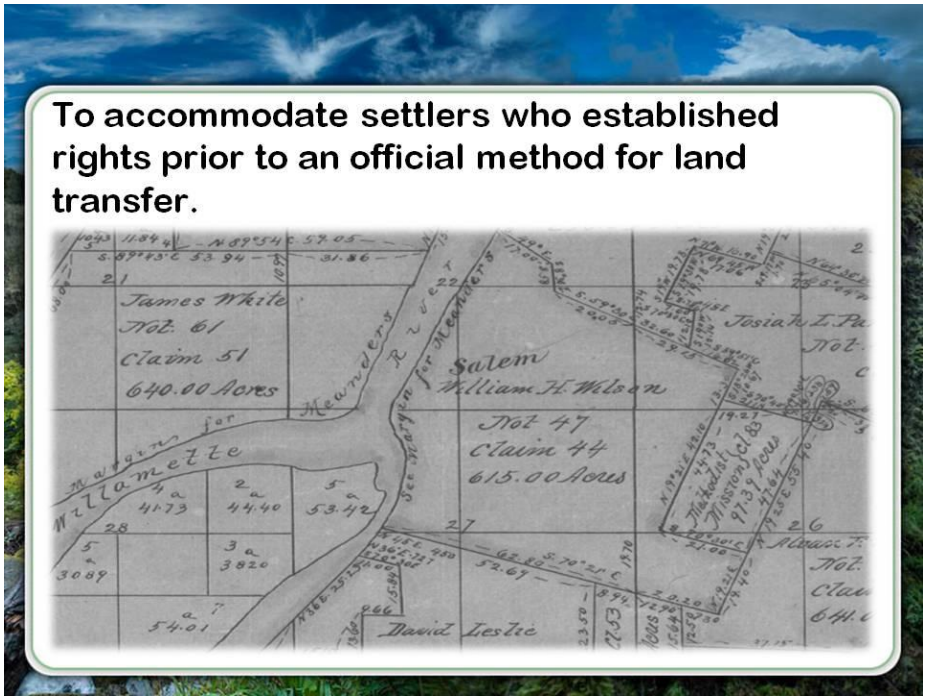


To accommodate existing rights. Settlers got ahead of the system they were out there where they settled. They had rights they had developed land and we needed a system that could accommodate that. The rectangular system did not always do that.



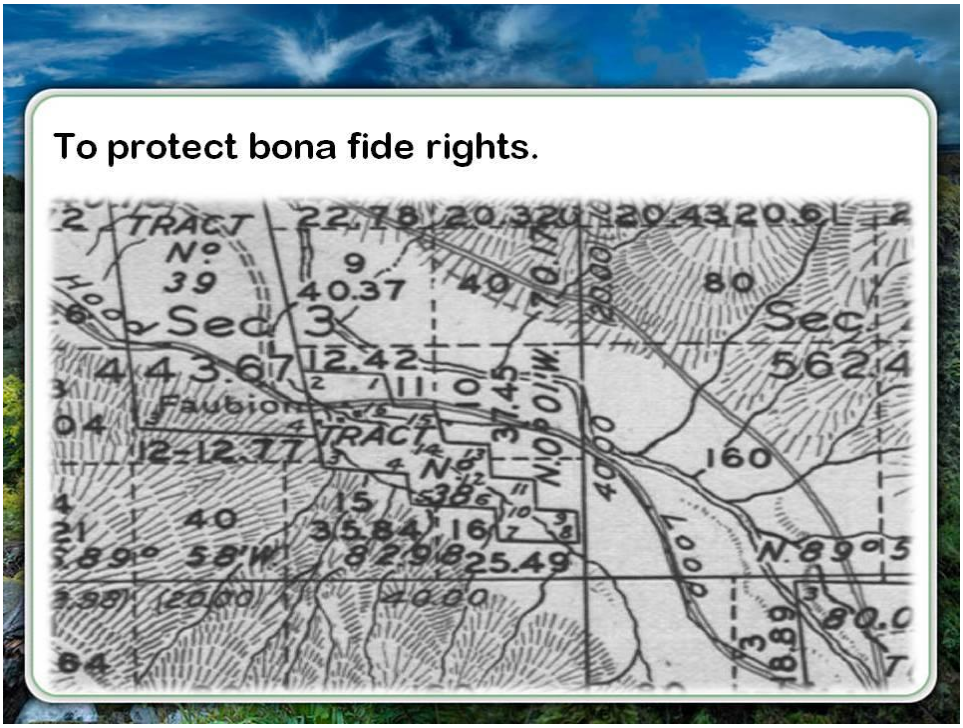
To accommodate settlers who established their rights prior to an official method for land transfer. Sometimes they were so far ahead of the system that there was not even an established government or recognized government seat.

They could not file a claim or make a claim, therefore that non-rectangular system was brought in to protect their rights and accommodate those early settlers.



To protect bona fide rights. Sometimes because of survey error due to fraud for various reasons the settlers did not end up located where a strict resurvey would place them and to protect bona fide rights sometimes we end up with tracts or other kinds of non-rectangular surveys.

The rectangular system obviously is designed to accommodate the vast majority of needs and parcels and the public lands.



There are special situations and issues that needed to be dealt with. Congress created a system to deal with issues as they came up. This created a system to deal with it so we end up with mineral surveys, we end up with homestead entry surveys we end up with grant surveys, tract surveys, and donation land claims. All of those were created because they could not be properly be accommodated in the rectangular system.

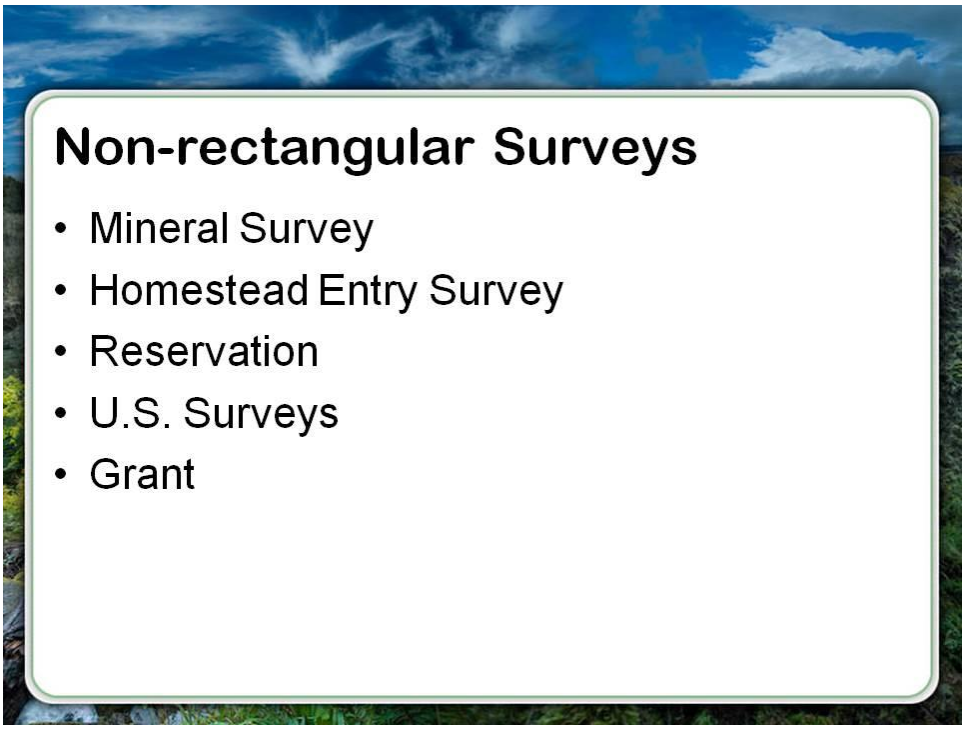
What are Non-Rectangular Surveys?

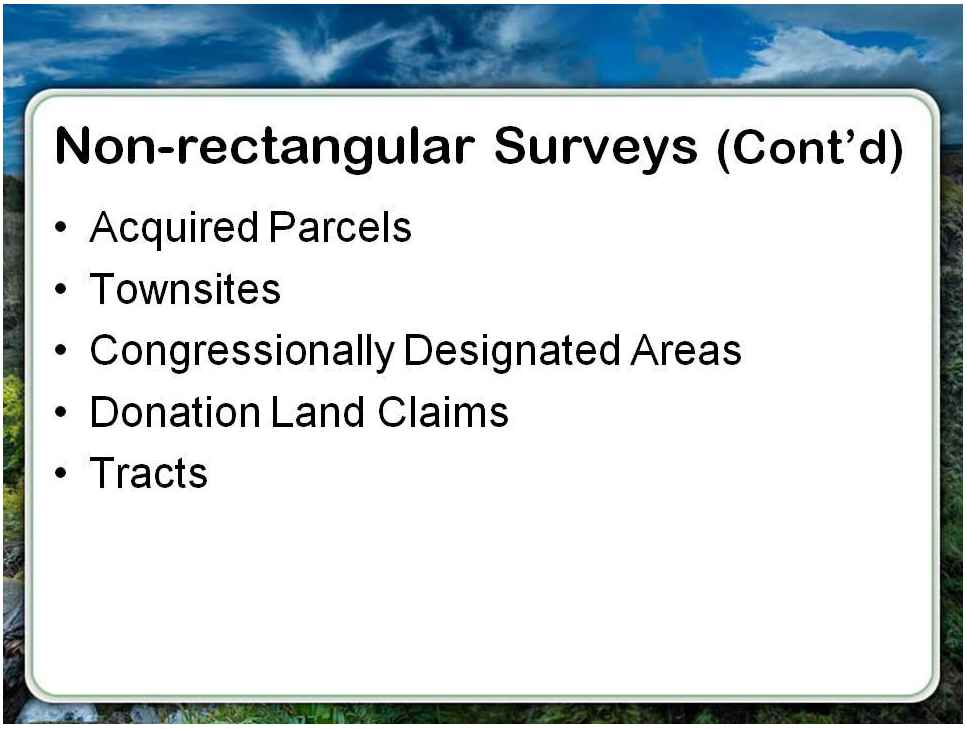
What are Non-rectangular Surveys? Mineral surveys, homestead entry surveys, reservations, U.S. surveys, grants, acquired parcels, townsites, congressional designated areas, donation land claims, and tracts and this is not all of them.

In various parts of the country, we may have a very specific type of claim that only appears in that area. In other places, we have others. In Alaska, the U.S. Surveys are used to cover a wide variety of non-rectangular surveys. So in different parts of the country you will find different things and

even the same name like a townsite maybe very different in Arizona from a townsite that you will find in Alaska.

So you need to be sure that you understand the exact authority and the exact process that was established for the non-rectangular survey that you are dealing with in your specific part of the country.





Records

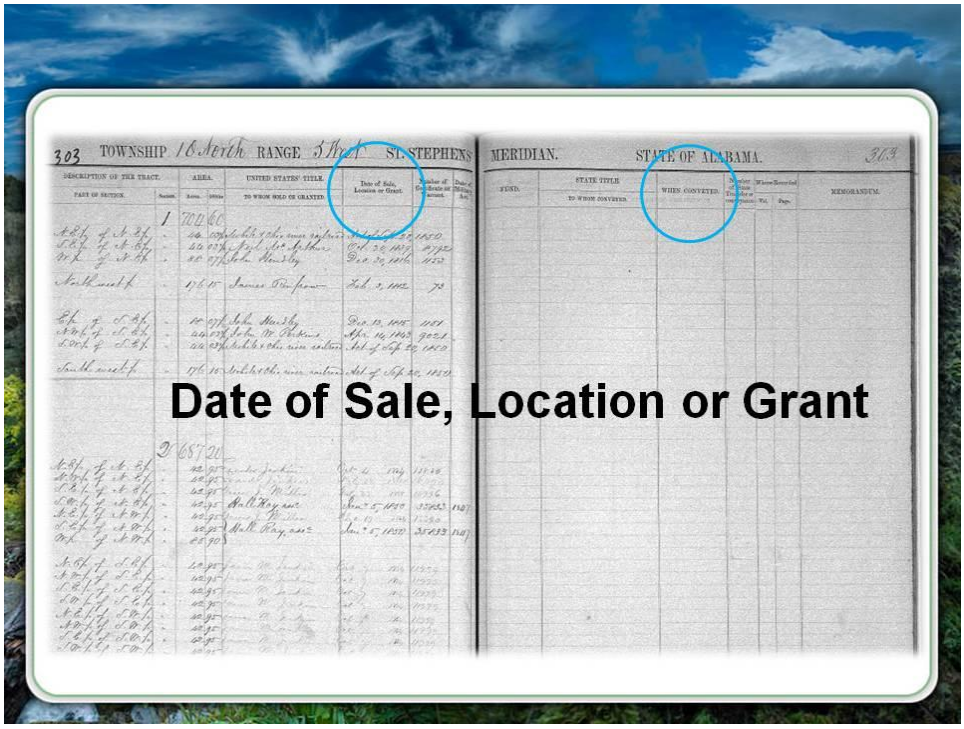
Let us start out by talking about the records because the records for non-rectangular surveys are somewhat different.

Now we have the normal records. This is a copy of a tract book, which is a companion document to the plat book that was held in the land office.

The plat book had the triplicate copy of the plat. The tract book is where they recorded the documents.

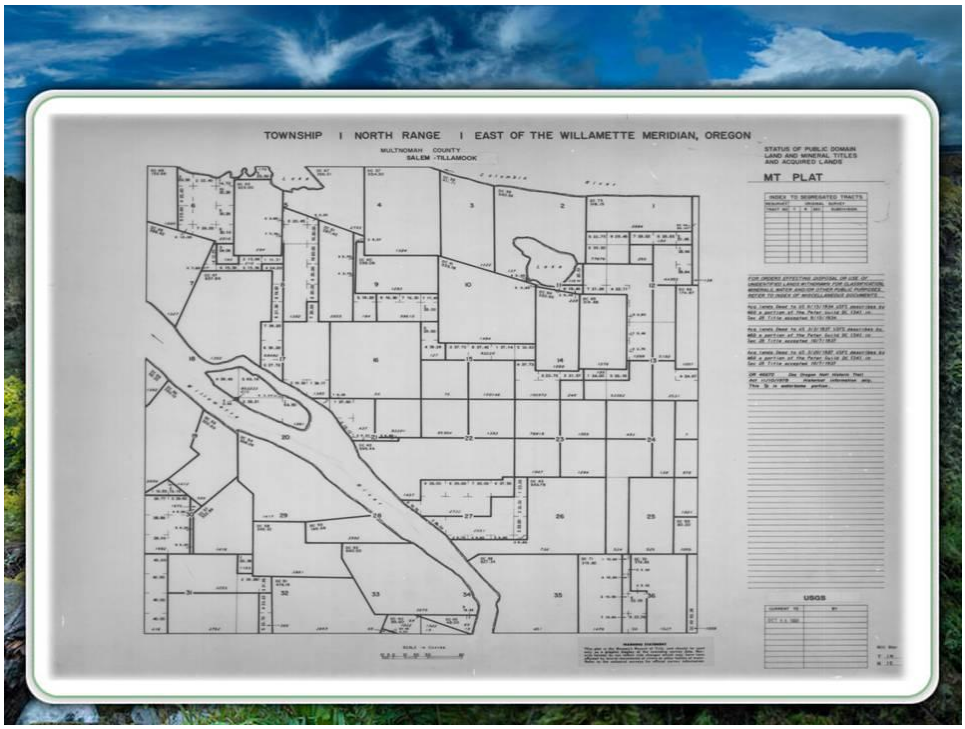
If you look at this, you will notice it says date of sale, location or grant.

On the other side, it says when conveyed. Those two seem to be the same thing.

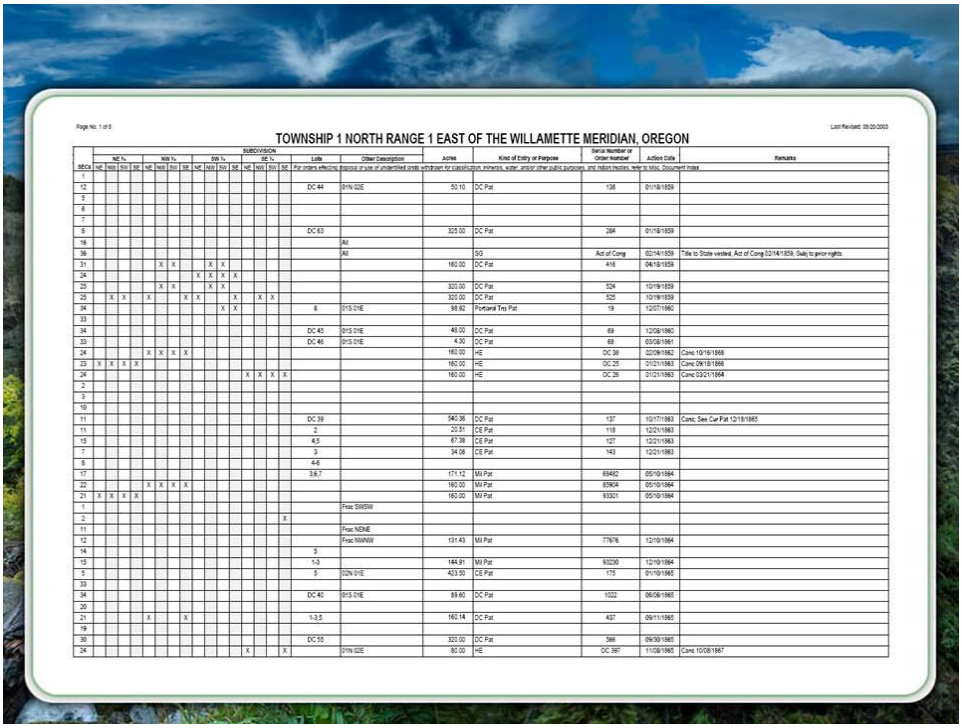


What you will find in many parts of the country under date of sale, location, or grant the date you find there is actually the date of entry or the date that someone officially acquired a right or established that they had claimed that parcel which can become a very

important date. The tract books are no longer in use. Most offices have film of the tract book. Tract books are in the national archives where they are protected. They are available but that is a place you go to find date of entry.



The master title plat contains the current records that deal with the information that was in the tract books. We also have the historical index, which are general records that you will find for rectangular surveys and non-rectangular surveys.

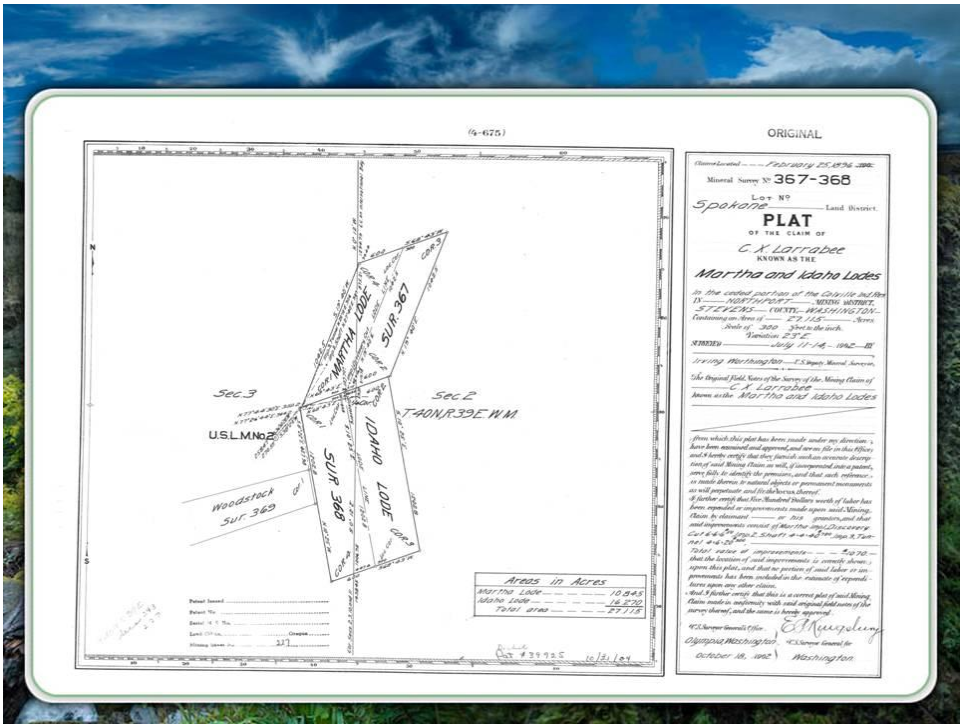


TOWNSHIP 1 NORTH RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, OREGON

SECs	SUBDIVISION	Lots	Other Description	Acres	Kind of Entry or Purpose	Serial Number or Order Number	Action Date	Remarks
	For orders affecting disposal or use of unidentified lands withdrawn for classification, minerals, water, and/or other public purposes, and Indian trusts, refer to Misc. Document Index							
1								
12		DC 44	SYN SDE	50.10	DC Pat	138	01/18/1859	
5								
6								
7								
8		DC 63		325.00	DC Pat	284	01/18/1859	
16			All					
36			All		SG	Act of Cong	02/14/1859	Title to State vested, Act of Cong 02/14/1859, Subj to prior rights
31	X X X			160.00	DC Pat	416	04/18/1859	
24	X X X X							
25	X X X			320.00	DC Pat	524	10/19/1859	
25	X X X X X X			320.00	DC Pat	525	10/19/1859	
34	X X	8	SYS DYE	98.92	Portland Tns Plat	19	12/07/1960	
33								
34		DC 45	SYS DYE	48.00	DC Pat	69	12/08/1960	
33		DC 46	SYS DYE	4.30	DC Pat	68	03/08/1961	
24	X X X X			160.00	HE	OC 38	02/09/1962	Canc 10/16/1868
23	X X X X X			160.00	HE	OC 25	01/21/1863	Canc 09/18/1866
24	X X X X			160.00	HE	OC 26	01/21/1863	Canc 03/21/1864
2								
3								
10								
11		DC 39		540.36	DC Pat	137	10/17/1863	Canc See Cur Plat 12/18/1865
11		2		20.51	CE Pat	118	12/21/1863	
15		4,5		67.38	CE Pat	127	12/21/1863	
7		3		34.06	CE Pat	143	12/21/1863	
8		4-8						
17		3,6,7		171.12	MI Pat	69482	05/10/1864	
22	X X X X			160.00	MI Pat	83604	05/10/1864	
21	X X X X			160.00	MI Pat	93301	05/10/1864	
1			Proc SWSW					
2	X							
11			Proc NENE					
12			Proc NWNW	131.43	MI Pat	77676	12/10/1864	
14		5						
15		1-3		144.91	MI Pat	93230	12/10/1864	
5		9	02N-01E	423.50	CE Pat	175	01/10/1865	
33								
34		DC 40	SYS DYE	89.60	DC Pat	1022	06/08/1865	
20								
21	X	1-3,5		160.14	DC Pat	437	09/11/1865	
19								
30		DC 55		320.00	DC Pat	566	09/30/1865	
24	X		SYN SDE	80.00	HE	OC 397	11/08/1865	Canc 10/08/1867

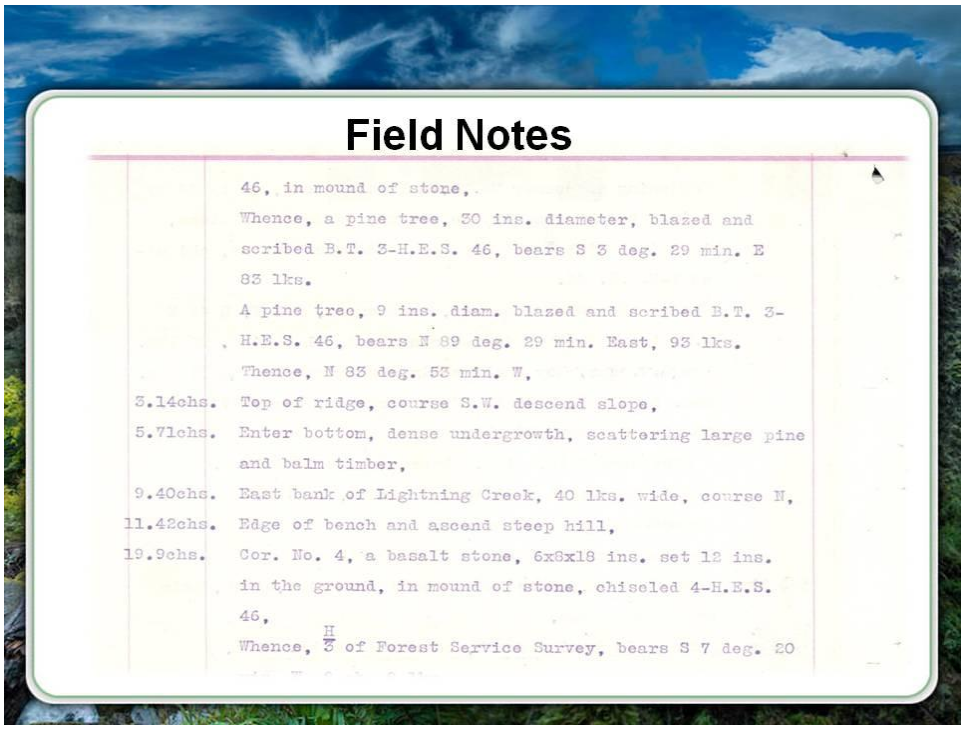
Controlled document index here you will find a copy of every action either patented, withdrawal, or whatever has taken place in that township.

Of course plats. We have plats for all of the rectangular also the non-rectangular.



Field notes same thing. The rectangular survey system of records and the non-rectangular system of records are going to be very much the same.

We begin to find something different now with the non-rectangular.



The official copies of documents related to non-rectangular parcels are often not found in BLM records.

They maybe in other agency records or state / local government files.

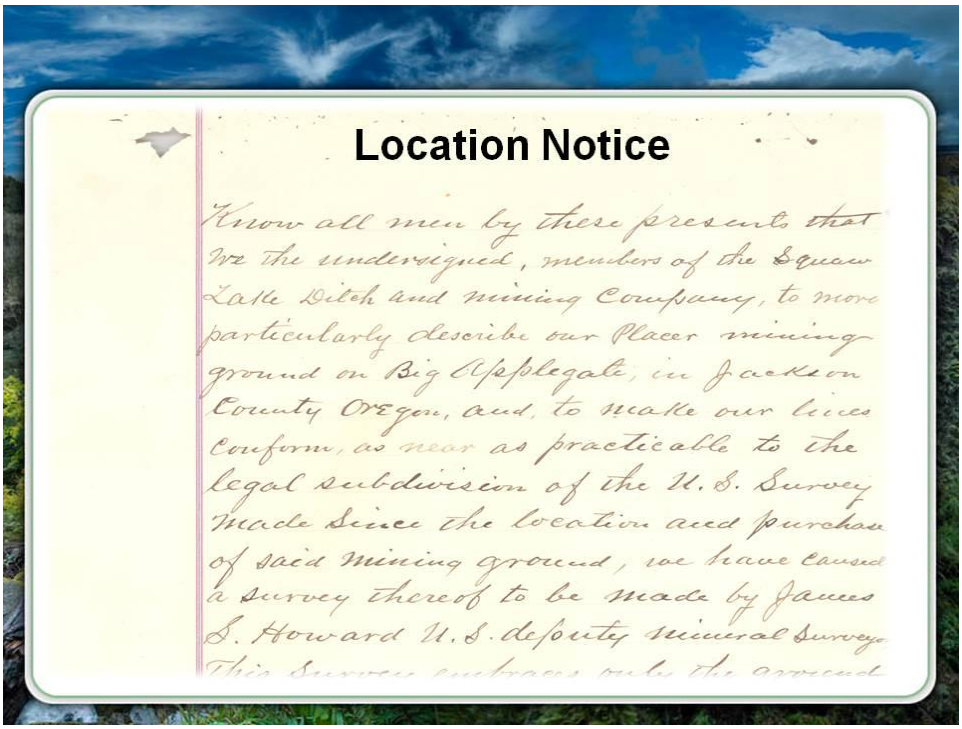
Because Congress established a process for each one of these non-rectangular systems, sometimes it was to deal with land that was managed by another agency. An example of that would be homestead entry surveys. The process that was designed to deal with those dealt mostly with the Forest Service.

You are going to find most of those records are in the Forest Service archives and the Forest Service record. Now the General Land Office approved the final plat, so there is a companion file kind of at the end when that process took place.

The majority of those records are going to be found in the Forest Service. If you are talking about allotments, Indian allotments, where are you going to find those records? The Bureau of Indian Affairs. If you are talking about military reservations, probably going to find those in the records in the military. Now those are all surveys that are approved by the Bureau of Land Management or the General Land Office, so there will be files in the General Land Office records but not the complete files.

Much of that information is going to be in this other agency. Some may even be in state agencies or county's records.

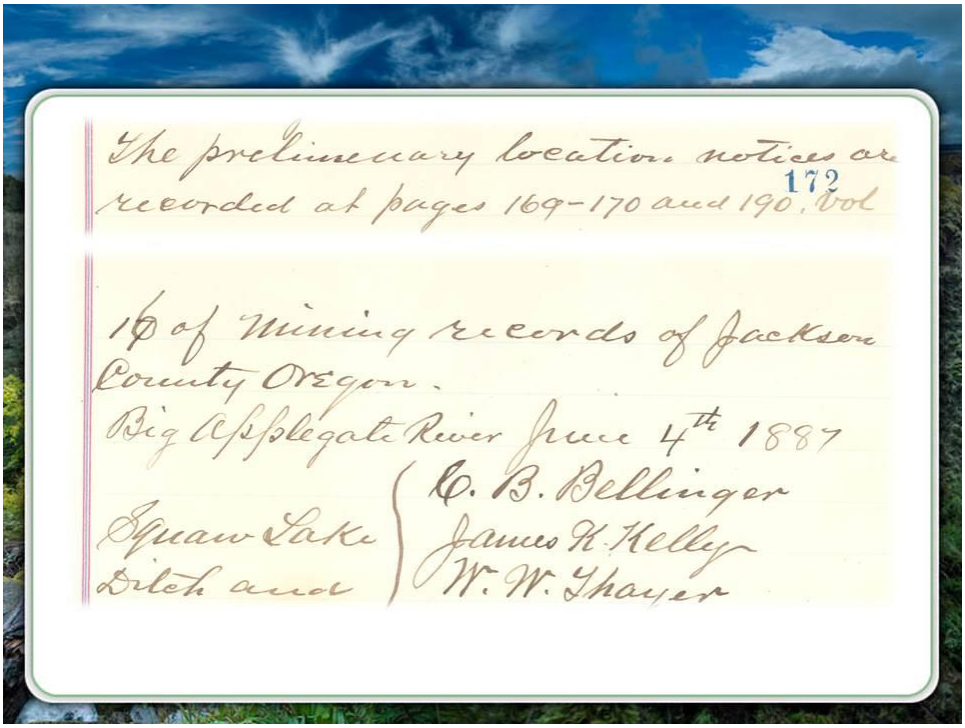
Here's an example of a location notice.



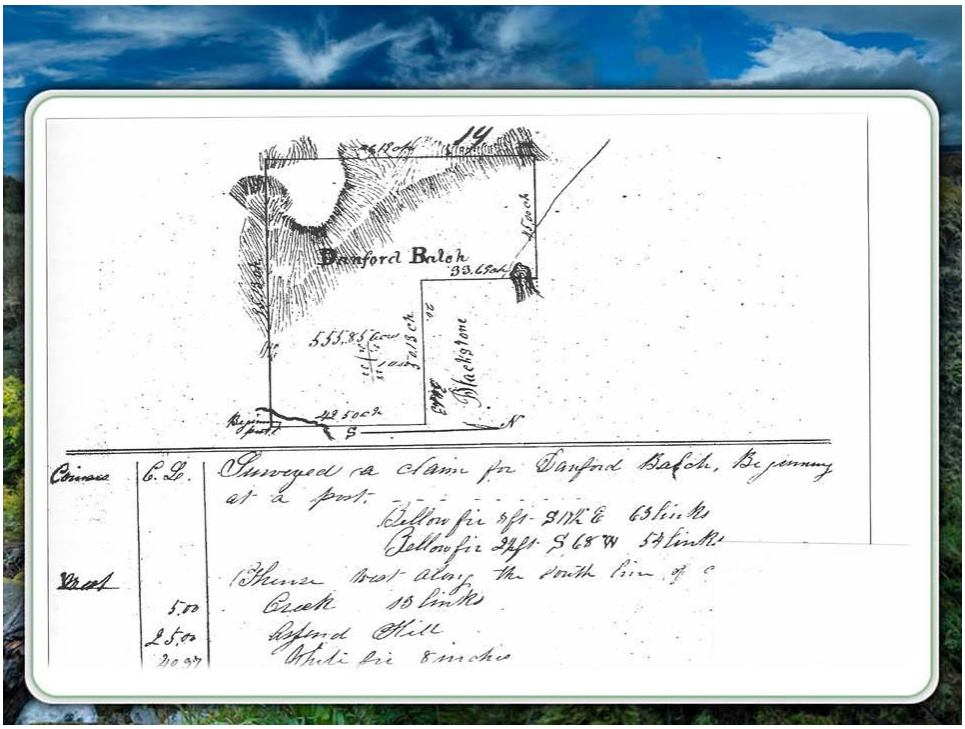
It is actually an amended location notice for a mineral survey for a mining claim. This just describes the adjustment that they're making to the claim. As we go down farther you'll notice it says the preliminary location notices are recorded at pages 169 and 170 and 190 Volume 16 of mining records of Jackson County, Oregon.

The location notice was filed in the county. So even at that level of government you may find records that pertain to the non-rectangular surveys that are federal government surveys that are approved by the general land office or the BLM.

So it is important to know where those records are found.



Now, today a copy of the location notices filed with BLM. But it is important to know when that change took place and where you might find those kinds of records. Here's a copy of a preliminary survey.



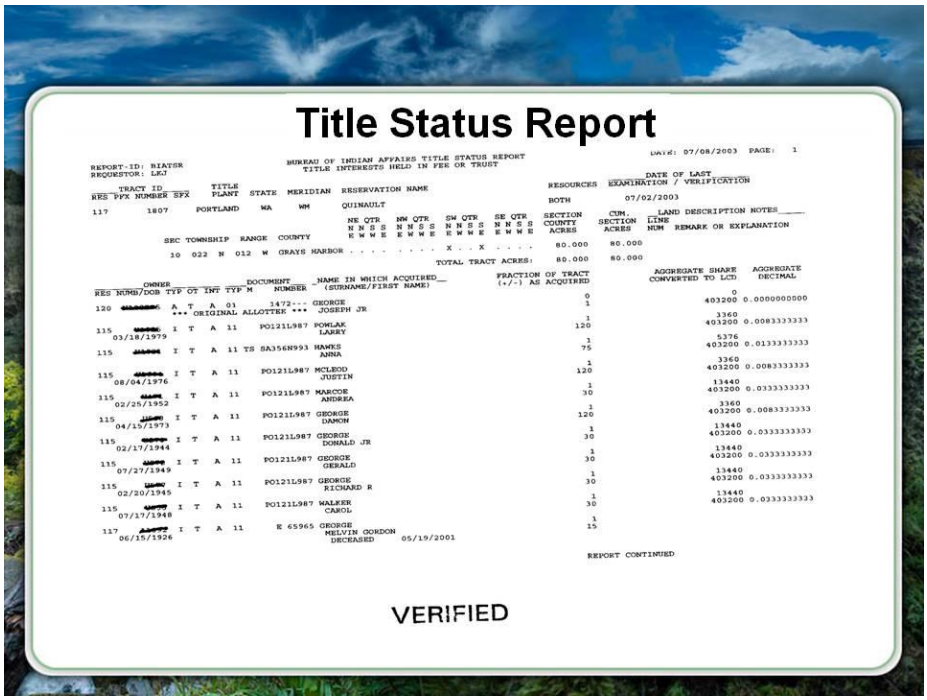
Many of the non-rectangular surveys that we deal with require a preliminary survey. The claimant had to hire someone to survey his claim, set monuments and do a preliminary survey to establish where his claim was.

Then he would make some kind of a filing and eventually there would be an official survey done by the General Land Office.

It's important to know if this specific non-rectangular survey you're dealing with has a preliminary survey. If it was filed and if that survey has been adjusted. Sometimes that original survey may have been too large and may have overlapped another survey, so there would have to be adjustments. Those are filed in different places.

This particular one here is from a donation land claim, it's filed with the state. So if you want to find copies of this, you have to go to the state it's not in the federal records.

This is a title status report that you find in the Bureau of Indian Affairs records, again another agency.



It’s not with the Bureau of Land Management or the GLO records, it’s with Bureau of Indian Affairs because this is their record system of tract allotments.

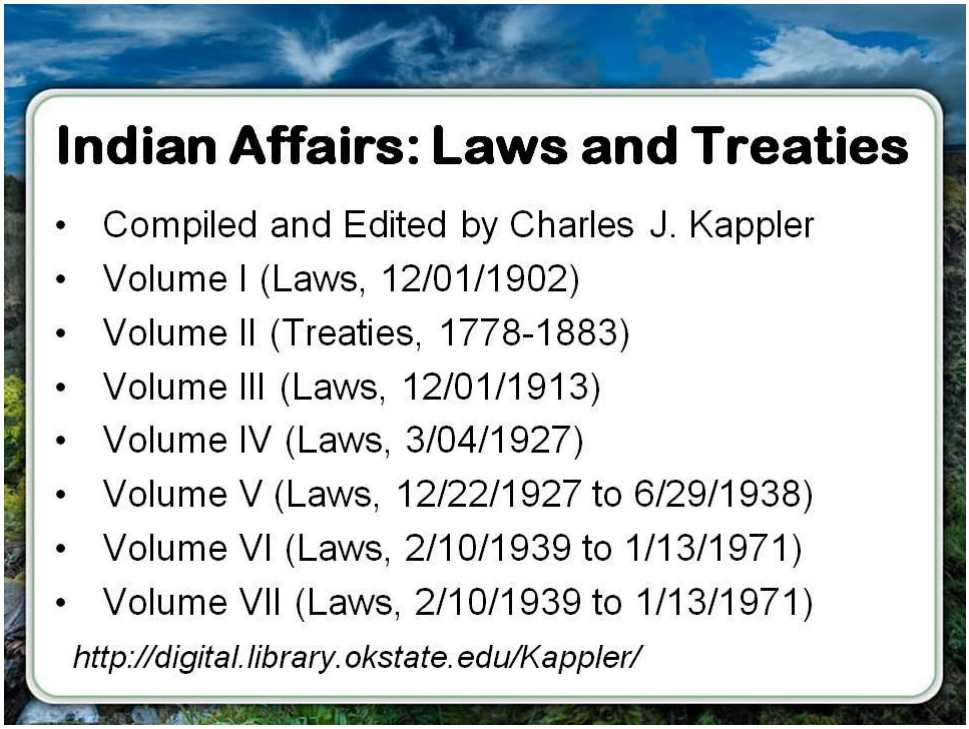
It’s not going to be in the county because counties don’t track it because its federal land. Allotments are generally held in trust by the federal government for an individual Indian so counties don’t track that so there’s not information in the county the only place to find that is the Bureau of Indian Affairs.

Here is a document that you can see was Xeroxed at some point in four different pieces.

This is an unrecorded survey and depending on the state that you’re located in you may have a lot of unrecorded surveys even very new surveys that are unrecorded. Some states go back with recording laws 50 or 60 years. Other states have very new recording laws and some none at all.

So unrecorded surveys are another very important piece of the puzzle. There may be corner evidence, information about a resurvey monument, or how a corner was reestablished. It is important to find those unrecorded surveys as well. This one it turns out formed the basis for a description in a will that transferred land so this unrecorded survey actually formed the basis for a transfer of land.

Another source of records are the documents themselves that created these different parcels. I wanted to show you this, specifically because it's a series of volumes about Indian Laws and Treaties and you'll notice Volume Two has the treaties.



There is a website at the bottom you can go to find the copy of the original treaty and read it for yourself. When you are looking at a survey for that particular reservation, you can compare it to the treaty and you can see what is going on there.

Obviously, there are similar documents for other non-rectangular surveys. Find what the law says if you are going to work on a townsite in Arizona.

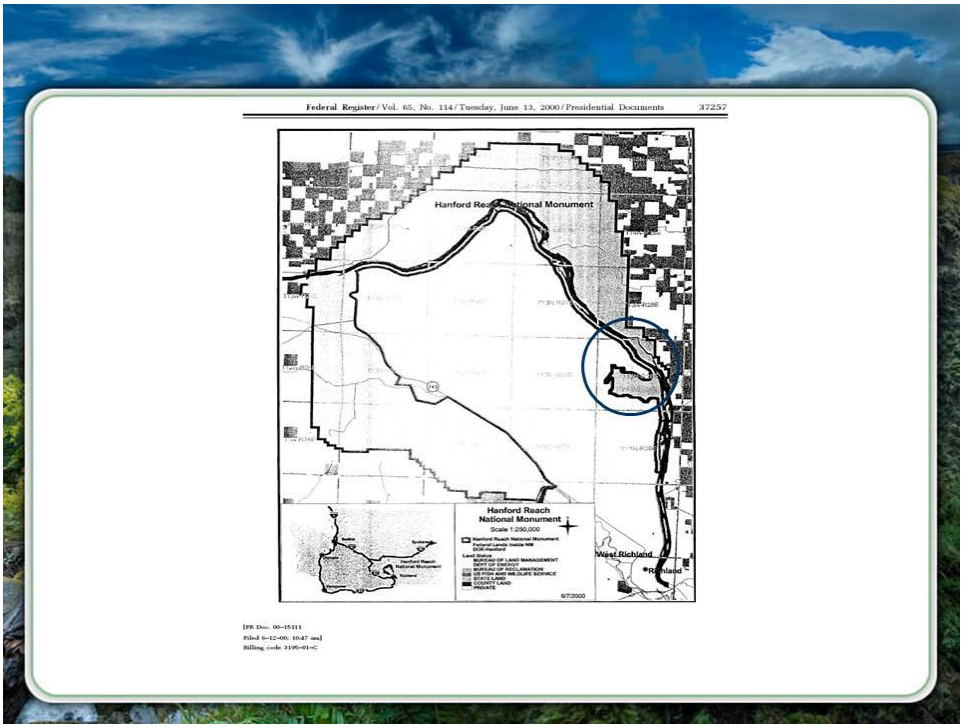
Make sure you know what authority that townsite was established under and make sure you get a copy of the law that was being followed. That way you understand the process what was conveyed and what the rights were.

With Homestead Entry Surveys, make sure you understand what the law is and know where to go to get those documents that describe the process. So you understand what is going on and often a federal agency will have administrative manuals with procedures on how to proceed with the process. Make sure you understand that.

As we go through this course, we cannot talk about all the non-rectangular surveys that are out there. We have chosen several to discuss. What we hope to find is the issues that you need to be concerned with on the specific non-rectangular survey you are working. As we go through these various segments hopefully you will see how different issues need to be dealt with and it will reinforce the concept that you need to understand the process, the survey, the records, for the

specific non-rectangular survey you're dealing with and in the specific portion for the country and the time frame because that can change.

Let us go on to the last one. This is an interesting one. This is a map, created by Congress to define a national monument.



Now this is an 8 ½ X 11 sheet of paper. This is the official document that defines the boundary and is the document that signed by the President. If you'll notice its 1 in 250,000 scale.

Now, when I began to look at this survey I found other documents that were created actually the day before this document was created that looked very similar but were to scale of about 1 to 50,000.

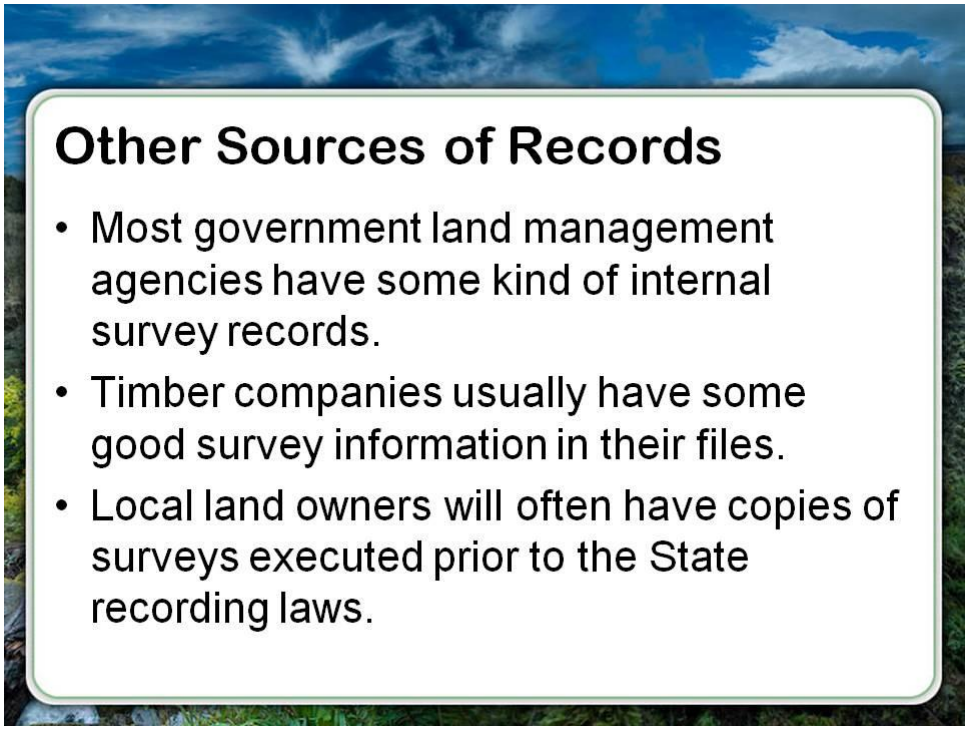
This was a scale that you could actually read and make sense of and allowed for additional information. In fact, in this particular larger document (not the original), the larger size created the day before had a notation that said that there were six nuclear power plants that were not to be included in this national monument, at this scale they couldn't get it on the drawing so it's not there.
Notice this area down here in the bottom right it's kind of a wavy line going around out there, these squares are townships. These are not sections – they are full townships. It turns out that line is a soil type line from some GIS System. At this scale we're supposed to be able to determine where that boundary is located. This is another document that we see more of in the last 30 years. Congress using just a map to define a boundary.

Many wilderness' withdrawals, national monuments, national park boundaries are defined by a map by Congress. Often the lines shown on those maps are drawn with a felt pen. But you need

to be able to find out which is the official map because sometimes there will be a lot of different copies floating around. Make sure we have the official map, and that we know what Congress intended from that map. I had our Washington office actually send me three different maps that were supposed to be the map of the Hanford Reach Monument. I eventually found this copy, which is the official one in the Clinton library, so do the research and make sure that you actually have the official map or the official document.

Other Sources of Records

Most government land management agencies have some kind of internal survey records if they are managing land.



Some are going to have corner search documents, some are actually going to have official files about non-rectangular surveys.

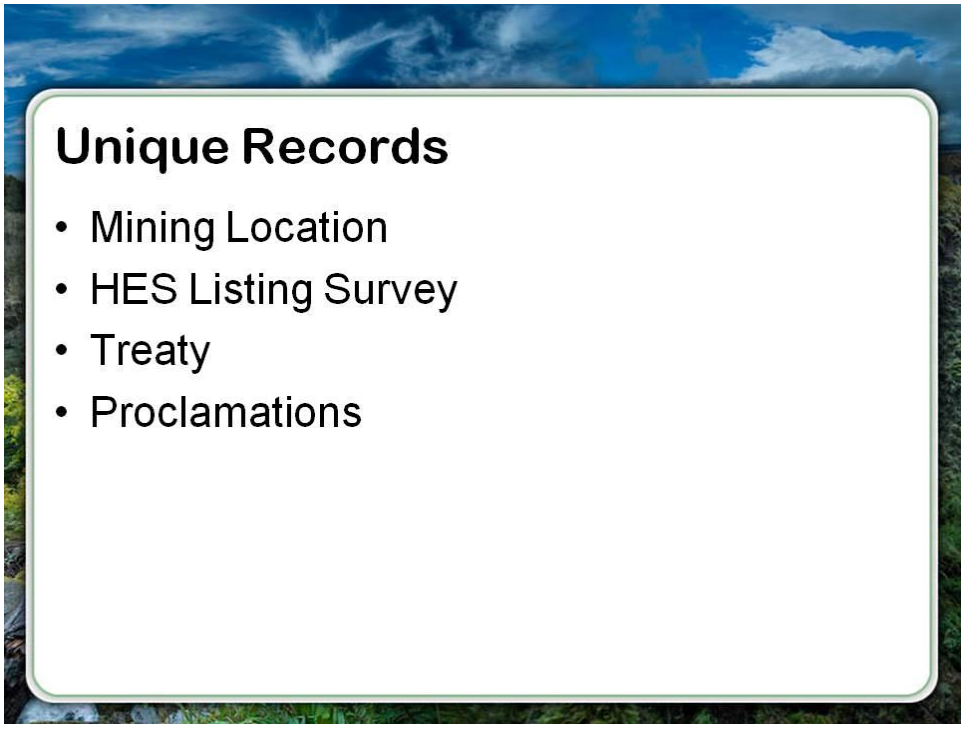
The Bureau of Indian Affairs has records of allotments surveys that were done by the Indian service.

Other agencies are going to have files and records that are important to the non-rectangular survey that you may be dealing with so make sure you go search those. Another is timber companies or large land holders. In fact often large even power companies they build damns, they do surveying, they create right-of-ways for power lines. They may have survey information and often times this is going to be up against our non-rectangular survey that were dealing with or they may even own portions of it that they have acquired over time so look at those private sources that are not in the county, not in the state.

I want to include in this not just local landowners, but local offices of federal agencies. If you go to the regional office they know nothing about the records, however if you go to a local office then yeah they go to a drawer in the back where they have records. So be sure to check those out because they may have important information about your homestead or your townsite or whatever you are dealing with.

Unique Records

So what records are unique to the non-rectangular survey system? Let's just look a little at mining location, HES listing surveys, treaty's, proclamations, grants. One of the things that is interesting is almost every non-rectangular survey has some kind of a unique record or some kind of a unique document that you will need to go find.



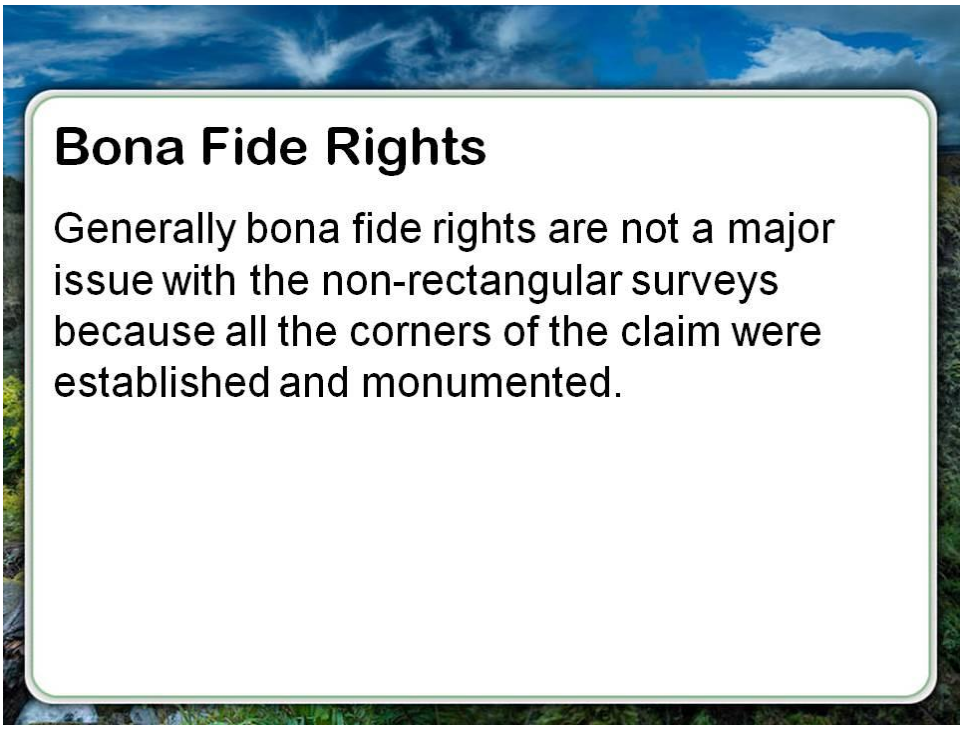
With donation land claims, they have a notification form. Listing surveys with HES mining claims had location notice that came before hand. Presidential proclamations in northern Washington there's an area where the President by proclamation created allotments for Indians.

Indian allotments were off the reservation, so they were public domain allotments. They were surveyed but the only record of those surveys is in the presidential proclamation. There are no records in the general land office or in any survey office.

Make sure you get all the records. We have already discussed treaties. If you are working with a grant, make sure you understand and know what that grant is. There is also more court actions with treaty's and grants. There have been disputes about the boundaries so you're going to find that if you do some research into the history of it, you're going to find where the court has made decisions about certain aspects. Make sure you understand what those are and that those happened and how that may affect your survey of the boundary.

Bona Fide Rights

Generally bona fide rights are not a major issue with non-rectangular survey because all of the corners of the claim are established and monumented. Bona fide rights become an issue when there is a fraudulent survey, or there is almost no evidence of the original survey left, or there was only one corner that anyone could find in the original survey and locate and the settlers located it as best as they could.



Here the settlers were there first almost always. There was a survey done of their claims so they knew where their claim was. So there are not generally bona fide rights issues because the claim was surveyed every corner monumented and the claimant knew where those monuments were. Now we may have some location issues over time because monument have been lost or destroyed but they are not bona fide rights issues.

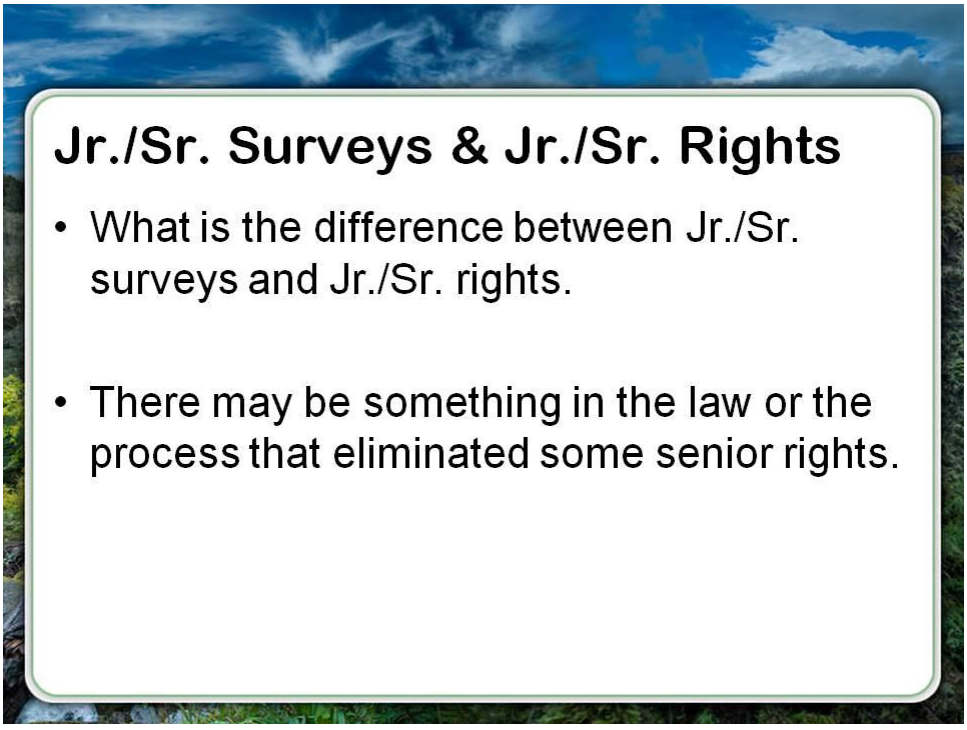
Junior/Senior Surveys and Junior/Senior Rights

What is the difference the difference between the junior/ senior surveys or the junior/senior rights? The survey it's strictly which survey is first and which survey is second. The senior survey is first the junior survey is second so how does that effect things.

Obviously most times, the boundary is established by the senior survey the junior survey generally bends in that senior boundary, however we have issues when patents are issued who entered first who entered second. So many times the issue with junior/senior survey does not really affect who might own specific land in a non-rectangular survey, its more of an issue of junior/senior rights. Its not who got their survey first, its often who established their rights first and in junior/senior rights were looking at who's rights are first.

If there is an overlapping area, who was their first, and who took the steps necessary to establish their rights before the other person. That is generally the issue. There maybe something in the law or the process that eliminated some senior rights.

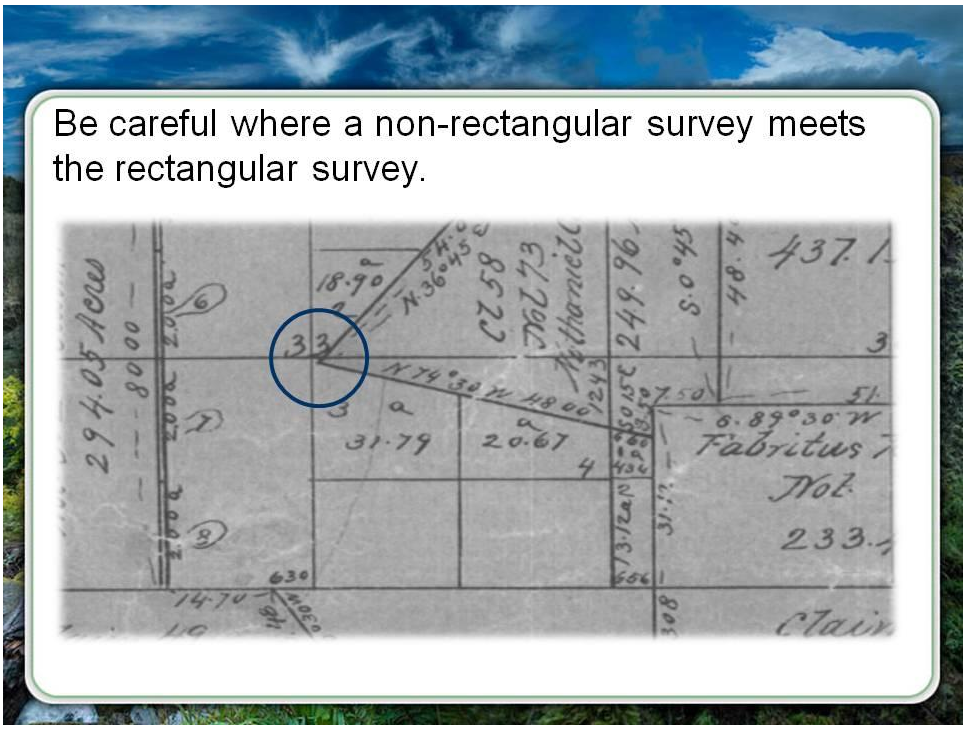
In mineral surveys, there's a process for filing a notice and anyone who has an adverse claim has a specific amount of time to file their claim before a patent is issued. If someone has an adverse claim and has not filed a claim in a specified time then their claim goes away. So there are methods that eliminate adverse claims or some issues of who was their first or some overlapping issues.



Another one is in the donation land claims when we get to the section, you'll see the surveyor general had authority to resolve conflicts prior to the survey and the patenting. Sometimes, there are systems in place in the process that will eliminate a problem like that.

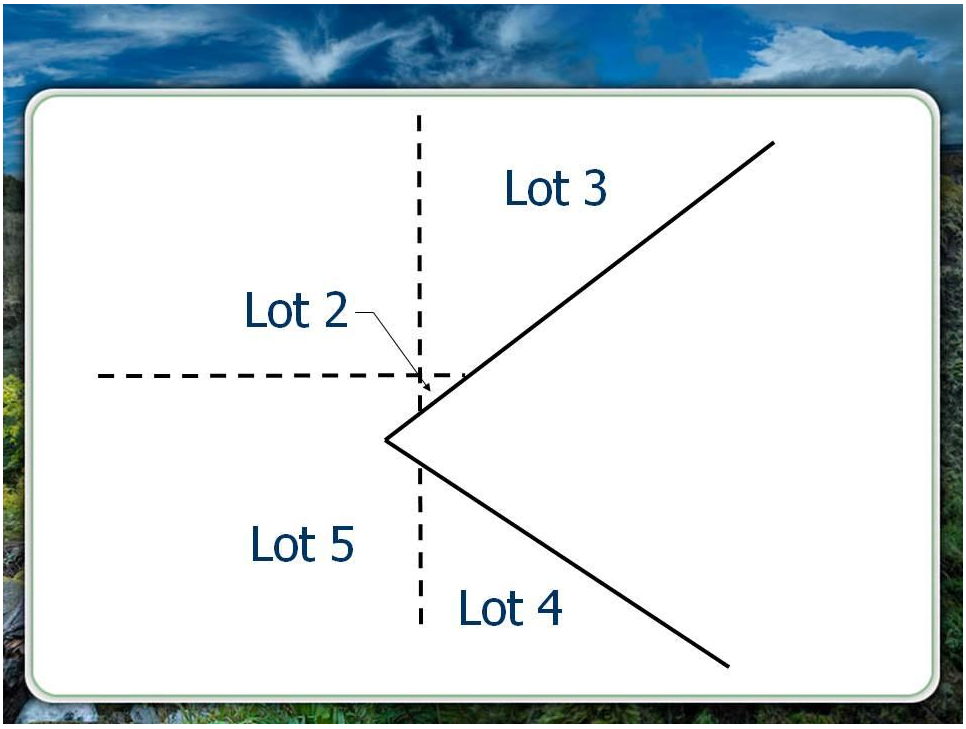
Non-Rectangular Surveys Meet the Rectangular Survey

Be careful where non-rectangular surveys meet the rectangular survey. Most of the time what was surveyed in the rectangular survey was just the exterior boundaries of the section.



The sub-divisional lines were not. So as the non-rectangular lines project out into a section, the relationship of the sub-divisional lines with the non-rectangular lines are calculated.

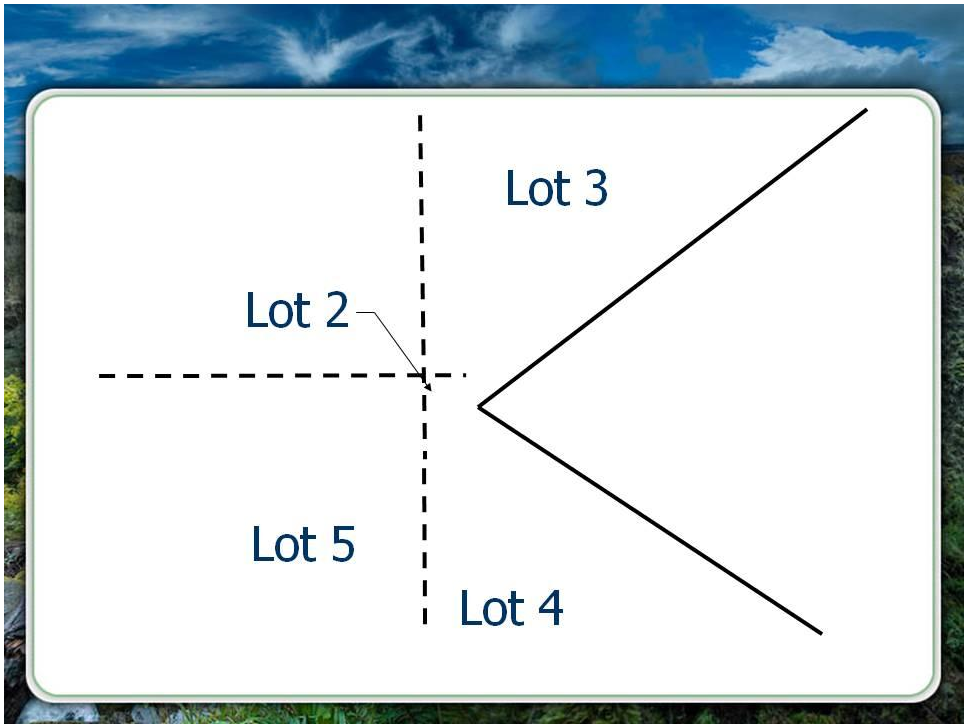
If there is distortion in the rectangular survey or the non-rectangular survey, then that relationship is probably not going to be portrayed correctly. We may see on a plat, let's say the dash lines are the north-south center line of the section and the east-west side of the section and the solid lines are a non-rectangular survey that's shown on this plat and we've have 4 lots.



Lots 2,3,4,5 are created because of the non-rectangular survey. They are portrayed as the relationship of the sub-divisional lines with the non-rectangular lines are portrayed here and we end up with 4 lots.

What happens when you go to survey this parcel and you find this? And this is not uncommon at all because the subdivision section lines were not surveyed.

Now how do you decide where the south boundary of lot 2 is? Or where is the dividing line between lots 2 and 4? What's the shape of lot 5? Is it a 40 or does it somehow go over and touch the non-rectangular survey? Or what do you do here? So that's an issue and we'll talk about that a little bit more as we go along.



Exercise 1

Common Elements Exercise #1

Instructions: Read Sec. 7-16 of the Manual and answer the following questions.

The reservation boundary shown on plats A and B below was described in the treaty as follows: **"…; thence southerly along the main ridge of said mountains, …".**

Plat A is a 1970's original survey of a portion of the boundary and Plat B is a 1930's original survey a different portion of the boundary.

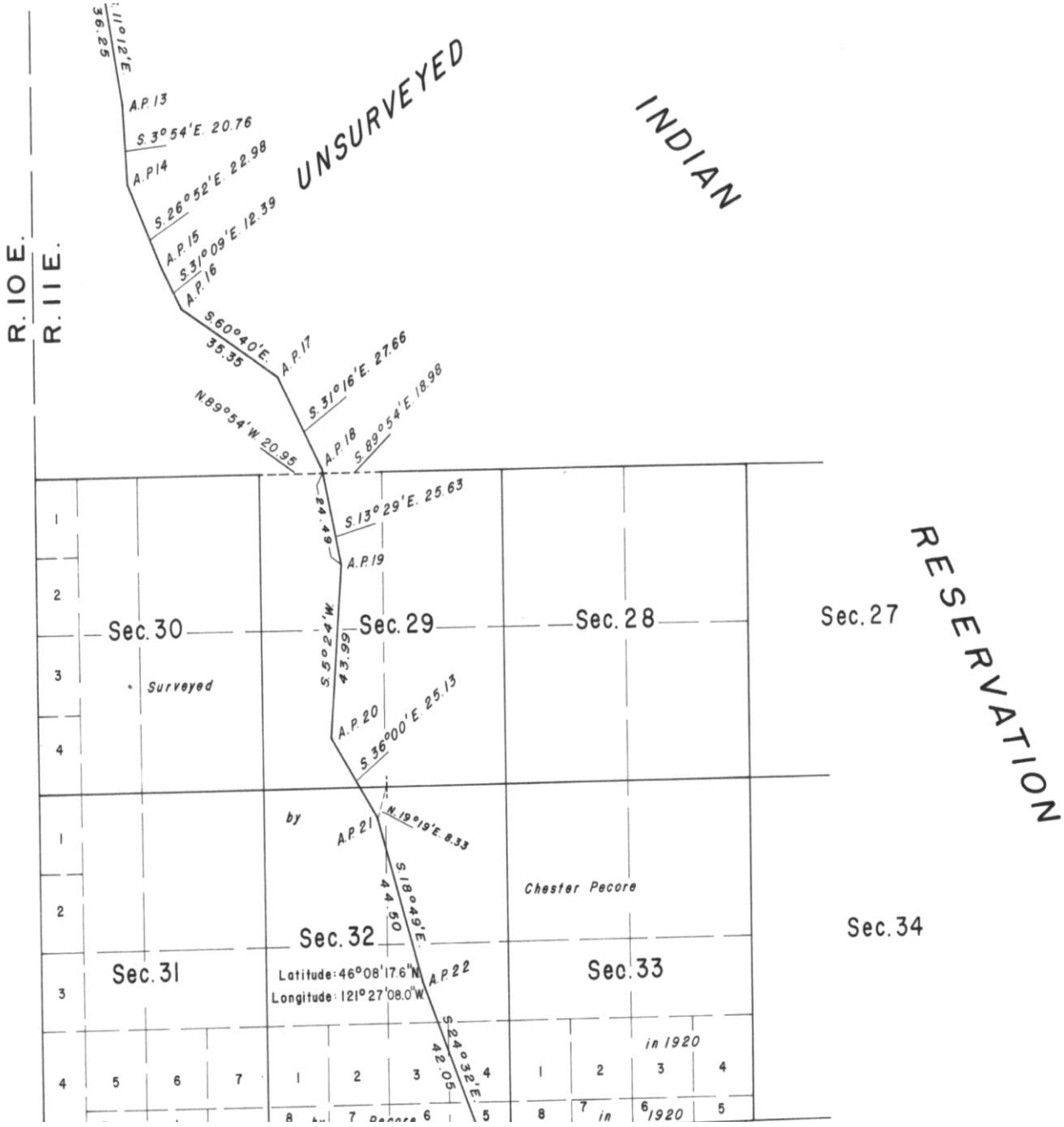
1. On plat A the actual reservation boundary is?

2. Why?

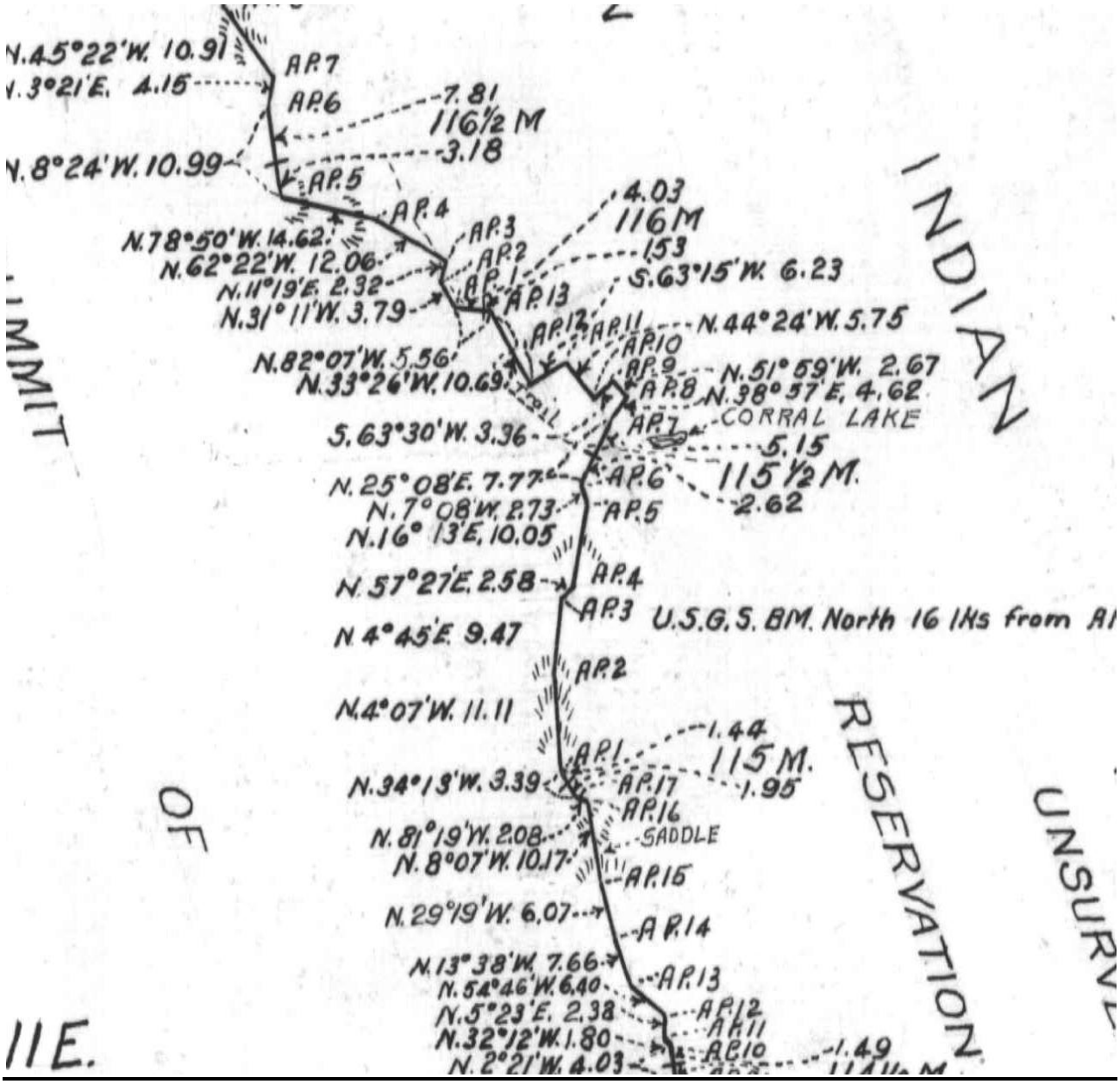
3. On plat B the actual reservation boundary is?

4. Why?

PLAT A


R. 10 E.
R. 11 E.
UNSURVEYED
INDIAN
RESERVATION
A.P. 13
S. 3° 54' E. 20.76
A.P. 14
S. 26° 52' E. 22.98
A.P. 15
S. 31° 09' E. 12.39
A.P. 16
S. 60° 40' E. 35.35
A.P. 17
S. 31° 16' E. 27.66
A.P. 18
S. 89° 54' E. 18.98
N. 89° 54' W. 20.95
S. 13° 29' E. 25.63
A.P. 19
S. 5° 24' W. 43.99
A.P. 20
S. 36° 00' E. 25.13
A.P. 21
N. 19° 19' E. 8.33
S. 18° 49' E. 44.50
A.P. 22
S. 24° 32' E. 42.05
Sec. 30
Surveyed
Sec. 29
Sec. 28
Sec. 27
Sec. 31
Sec. 32
Latitude: 46° 08' 17.6" N
Longitude: 121° 27' 08.0" W
Sec. 33
Sec. 34
Chester Pecore
in 1920

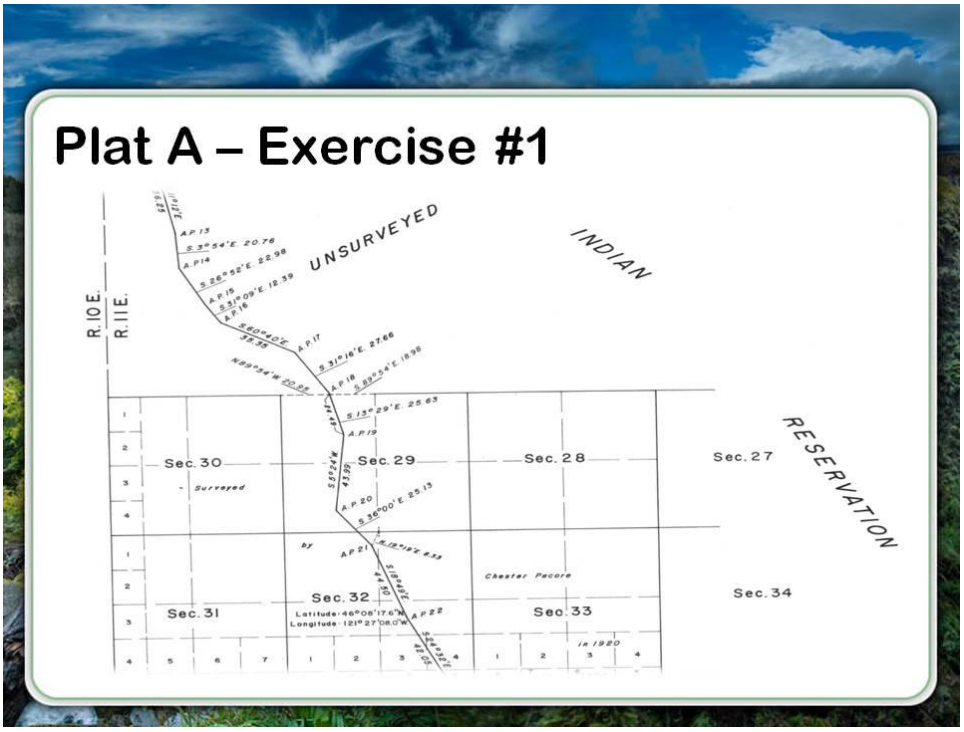
PLAT B


N.45°22'W. 10.91
N.3°21'E. 4.15
AP.7
AP.6
7.81
116½ M
3.18
N.8°24'W. 10.99
AP.5
AP.4
AP.3
AP.2
AP.1
AP.13
AP.12
AP.11
AP.10
AP.9
AP.8
AP.7
AP.6
AP.5
AP.4
AP.3
AP.2
AP.1
AP.17
AP.16
AP.15
AP.14
AP.13
AP.12
AP.11
AP.10
4.03
116M
153
N.78°50'W. 14.62
N.62°22'W. 12.06
N.11°19'E. 2.32
N.31°11'W. 3.79
N.82°07'W. 5.56
N.33°26'W. 10.69
S.63°15'W. 6.23
N.44°24'W. 5.75
N.51°59'W. 2.67
N.38°57'E. 4.62
CORRAL LAKE
5.15
115½M.
2.62
S.63°30'W. 3.36
N.25°08'E. 7.77
N.7°08'W. 2.73
N.16°13'E. 10.05
N.57°27'E. 2.58
N.4°45'E. 9.47
N.4°07'W. 11.11
N.34°13'W. 3.39
N.81°19'W. 2.08
N.8°07'W. 10.17
N.29°19'W. 6.07
N.13°38'W. 7.66
N.54°46'W. 6.40
N.5°23'E. 2.38
N.32°12'W. 1.80
N.2°21'W. 4.03
1.44
115M.
1.95
SADDLE
1.49
U.S.G.S. BM. North 16 lks from A
INDIAN
RESERVATION
OF
UNSURV
IIE.

Common Elements, Part 2

Now that you have completed this short exercise, let's discuss it. I'd like to go over the information which is the reservation boundary shown in plats A and B below was described in the treaty. Both of these plats are showing the same reservation boundary, different places but the same boundary. Southerly along the main ridge of set mountains so the original reservation boundary is following the ridge.

Plat A is a 1970's original survey of the portion of that ridge or that boundary, and Plat B is in the 1930's. Look at Section 29 and you will notice that there are just three courses that go through Section 29.

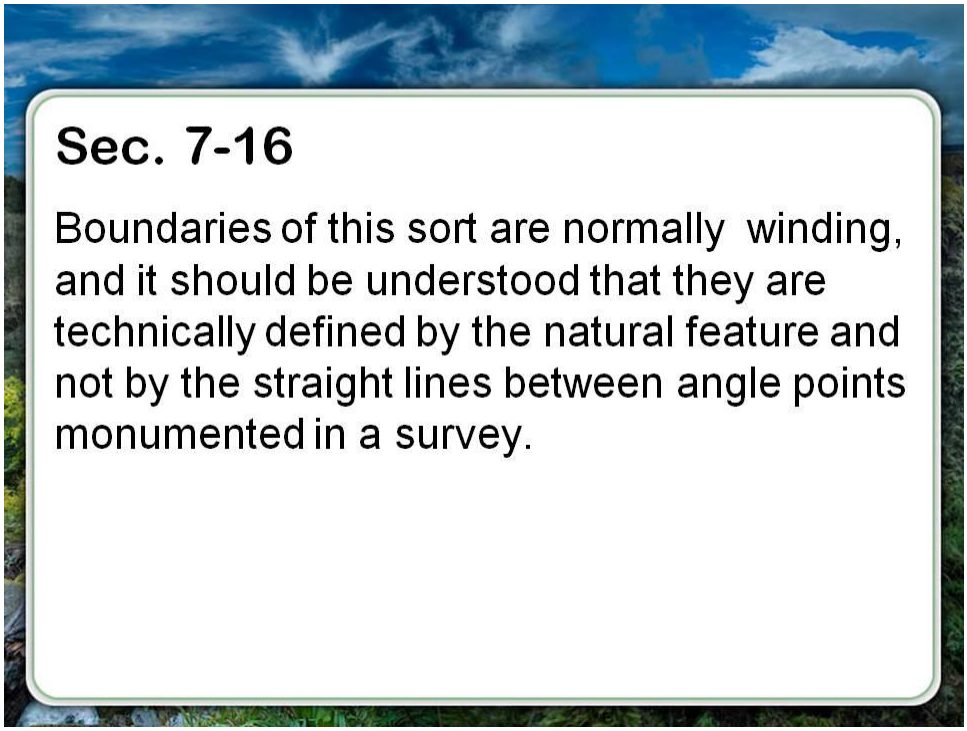


There are only three monuments there and these are long courses 25 chains 44 chains almost. So it is clear that what the surveyor was doing was setting monuments at major bends or changes in directions of the ridge but not actually monumenting the exact ridge.

A survey of this type identifies which ridge is the boundary. We know now which ridge is the boundary, but straight-line bearings and distances between the monuments does not really establish the boundary.

What happened? The treaty said that the ridge was the boundary. So now when we come to do a survey, if we set monuments on the ridge and have them long distances apart we do not monument every sinuosity or every change in bearing of that ridge. A straight line between them doesn't actually mark the boundary.

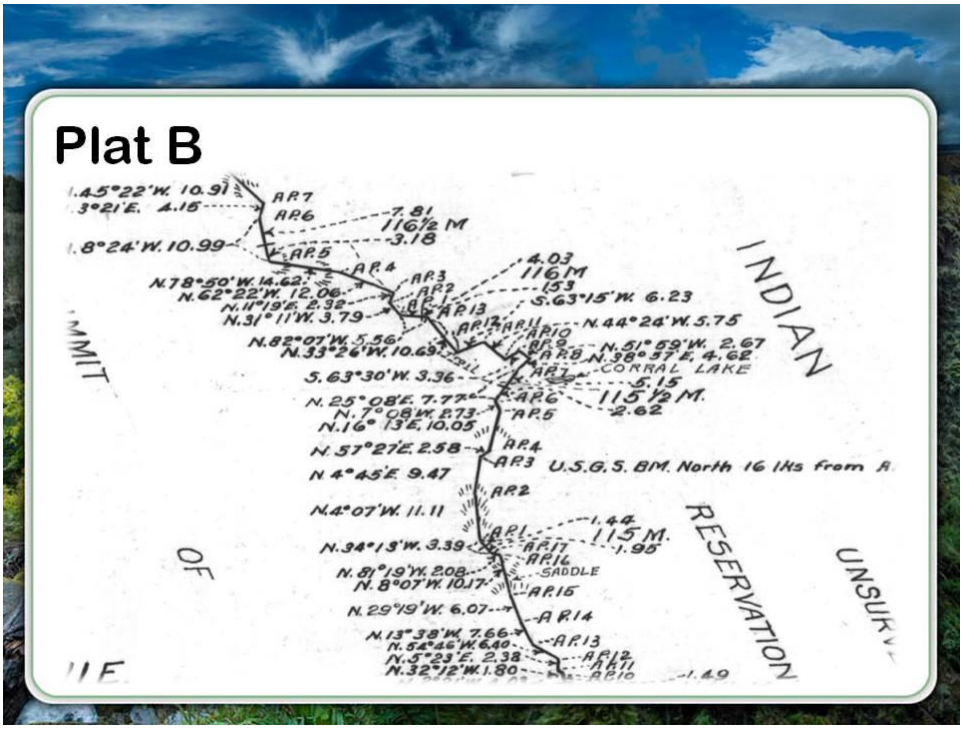
If you look at Section 7-16 in the Manual, you will see that it says boundaries of this sort are normally winding, and it should be understood that they are technically defined by the natural feature and not by the straight lines between angle points monumented in a survey.



Now a couple of things about this. In the '73 Manual cites a case and it uses that case to defend or as the authority for this concept that the ridge is the actual boundary not the monuments along the straight lines between monuments.

If you read that case carefully, what it is actually talking about is the survey was actually on the wrong ridge. It was on the wrong ridge so that case is maybe not quite on point. However, the point in the Manual is important when the straight lines between the monuments do not actually follow the ridge then the ridge is actually the boundary.

Let's look at Plat B.



When we look at Plat B, we will notice that there are many courses that are monuments along the ridge. We have courses here that are a chain, two chains long. It is clear that the surveyor was identifying the ridge very carefully with his monuments.

If you were to go up on this ridge and walk straight lines between monuments, you are

going to be on the ridge. So in this case it's clear that the surveyor was actually identifying not just which ridge was the boundary, but was actually identify the boundary itself. Straight lines between monuments would in fact determine the boundary.

Now even on a survey like this, we could get into a situation where its very difficult to determine exactly where the top of the ridge is. We could have some kind of an action after the fact that says the surveyor actually got off on the wrong ridge at this point he went down on the wrong spur for a while then brought back on the proper ridge, and the ridge would of course then control. Normally in a survey like this one shown on Plat B, straight lines between the monuments will actually control the boundary.

Angle Points

Let's talk a little about restoration of angle points on non-rectangular survey because that's another big issue. We don't end up with situations like we have at section corners and quarter corners where the lines run in cardinal direction, we have lines going only two directions or four directions out to the corner.

The processes and the procedures established in the Manual for restoration corners are almost all designed for the rectangular system with the exception of the grant boundary or the irregular boundary. The grant boundary is for metes and bounds type boundary. That still doesn't meet all the needs that we have when we get into the non-rectangular survey system.

Exercise 2

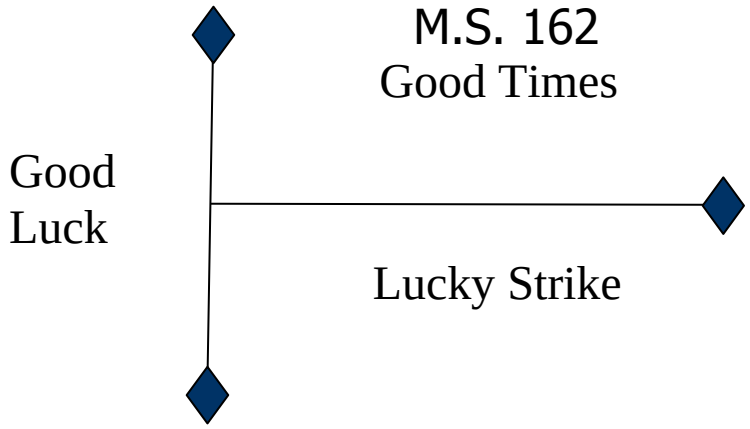
Common Elements Exercise #2

Mineral Survey No. 162 is comprised of several claims which were surveyed, approved and patented simultaneously. The SW cor. of the Good Times Claim is lost.

1. What method of proportioning should be used to reestablish the corner?

2. Why?

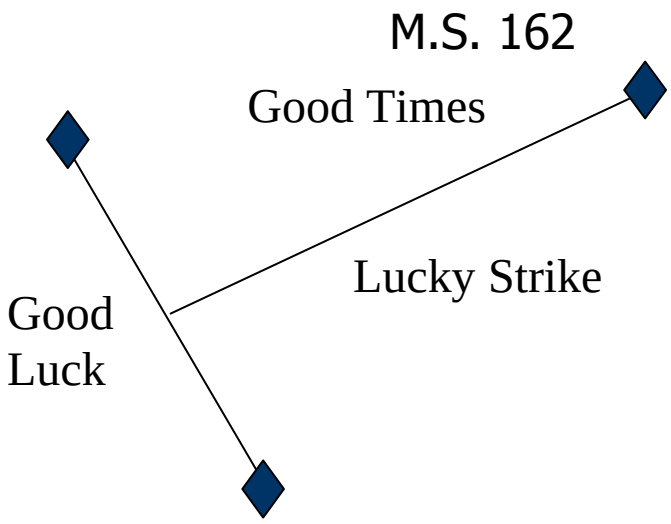
Diagram A



On the previous example the bearings of the lines were cardinal, would the corner restoration method change if the lines were as shown in “Diagram B”?

Why?

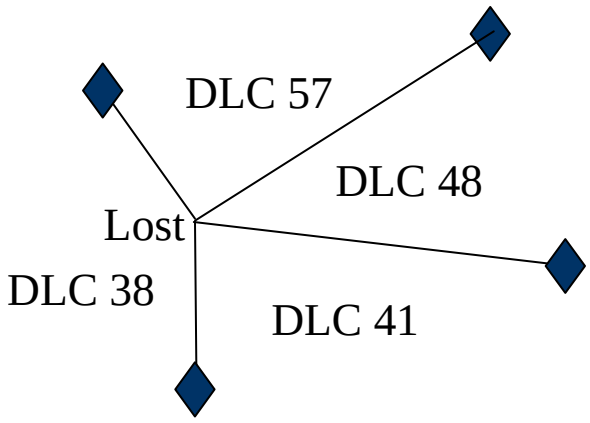
Diagram B



You could be faced with the situation in "Diagram C" when resurveying several types of non-rectangular surveys. All four lines were surveyed and approved on the same plat. What method would you use to reestablish the lost corner?

Why?

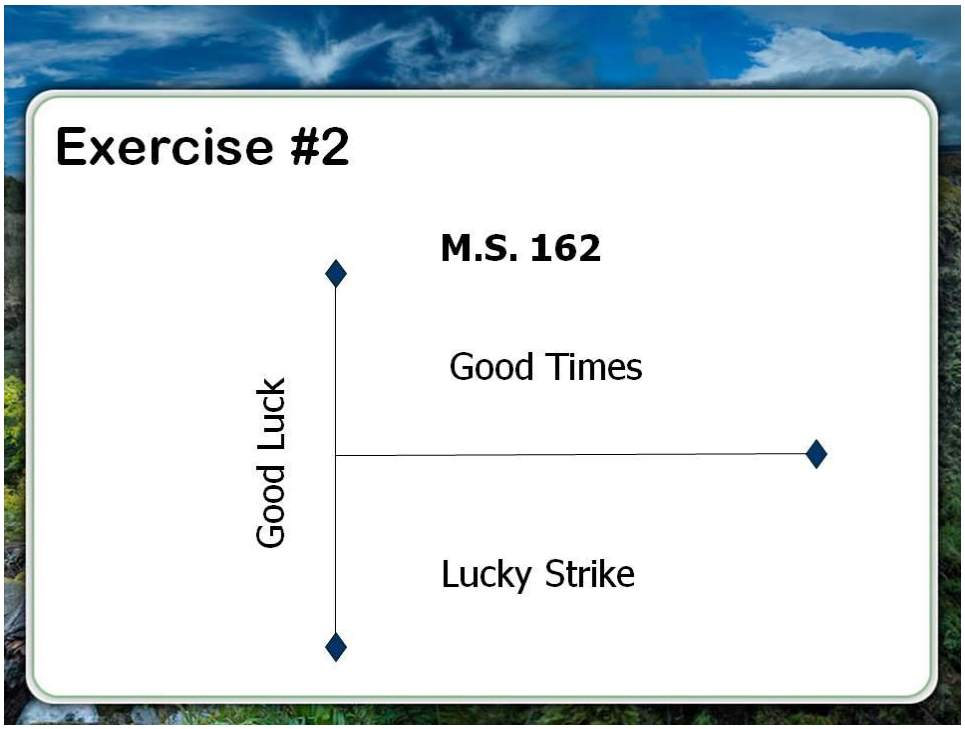
Diagram C



Common Elements, Part 3

Now that we have completed Exercise 2, let's discuss it. Now in Exercise 2, we are dealing with restoring some corners in a non-rectangular survey. In this case a mining claim. It's a situation where a mineral survey surveyed several claims at one time, so the corner that we're dealing with and the lines that were dealing with were all done at the same time.

Let's look at Diagram A and the first question is what method of proportioning should you use to reestablish the corner?



It appears that these lines are cardinal. We only have corners going in three directions; our first guess would be three-point.

It would probably give us a good answer. The lines are cardinal so that would work although the Manual section that talks about three-point really is under double proportion.

If you look in the '73 Manual, you have double proportioning. Under that are modified methods to deal with section corners. This seems to be a situation where three-point would a logical system.

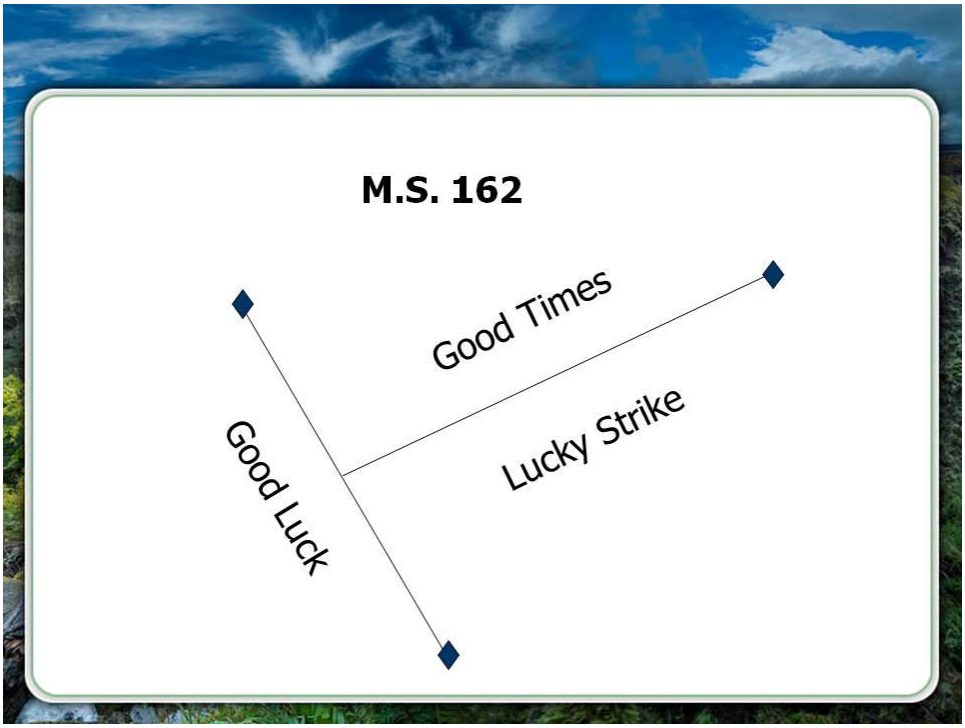
Now, one of the things that BLM has done for a long time is reestablish missing corners along groups of mining claims by simply retracing the exterior. They either use a compass rule adjustment or grant boundary adjustment along the exterior without taking into account any corners on the interior of the claim. So we may have a claim on the corner on the exterior with a line projecting into the claims or groups of claims.

In this situation, it would simply be a single proportion or south along this line, and the line in the east would not even be used. That really was a standard method BLM used for years and maybe even the GLO before that. I do not think that's a good method. I do not think that it takes into account all the information it needs in this case. I would probably start with a three-point, and hope that that works. If a three-point does not really give us a good answer then there is some distortion in there, and what you may end up doing is reestablishing this corner from two of the corners.

If you can identify that there is a blunder in the measure of the third, you could end up with a boundary with a single proportion. When you are dealing with mineral surveys, there may be additional information, because mineral surveys have ties to improvements within the claim. Their center is the corner, and you will hear about that when we get mineral surveys. There may be additional information that is going to help you determine this corner point but there is not a specific prescribed method for reestablishing this corner. I think it's best to always tie all the lines, use all the lines that we can, or if were identifying a blunder we may have to throw out one line.

Let's look at the second example (Diagram B). You will notice it is exactly the same as the first except the lines have been rotated.

The lines are not cardinal. We begin to have a problem here because the three-point method is designed and defined by cardinal equivalents. So let's say one of our lines is at 45 degrees.



It's not an east-west line , it's not a north-south line. It's at exactly 45 degrees. In the three-point method, that line is going to control for only one direction, for either east- west or north-south.

If it's at 45 degrees, we don't know what direction its supposed to control. The three-point method will work fine when we're dealing with cardinal lines, and as soon as we end up with some rotation there, the three-point method isn't going to work very well.

We are going to have to do something, some kind of alternate method. In this situation, I would probably look at single proportion on the westerly line the boundary of the Good Luck. I would probably go record distance, on the Good Times and Lucky Strike, and project that either through the single proportion point and on to record distance. Then bend that boundary of the Good Luck through it or project it towards the single proportion point on the Good Luck claim and if it did not reach the claim then bend the Good Luck boundary through it. You do not like that, because here's a boundary that was straight but in the record and now has a bend in it well a lot of boundaries that were straight in the record are not actually straight.

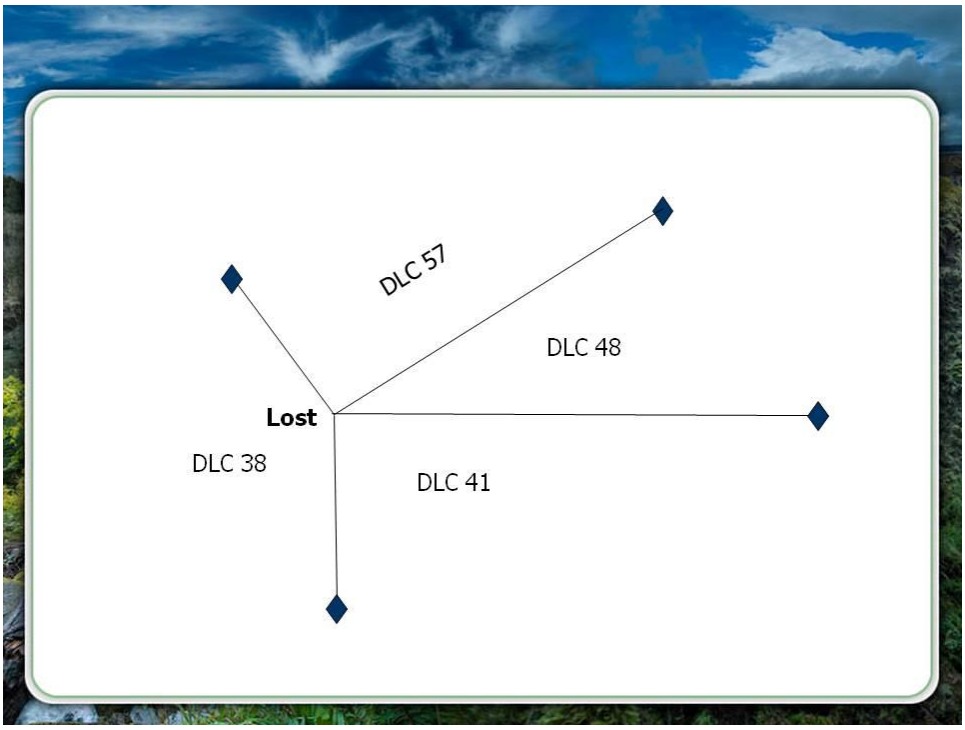
That's one method. Its kind of a modified three-point. Instead of using a cardinal equivalent on that line between the Good Times and the Lucky Strike, we would actually use record distance. There are no prescribed methods here.

There's another method in the '47 Manual that's not even in the '73 Manual called Miscellaneous Control. It is designed to be used in this kind of a situation. We will look at another situation where it could be used. The main point is, in many of the non-rectangular surveys that were going to be dealing with, there is no prescribed method because we have multiple lines extending from a common corner.

Often these lines are not cardinal lines and there is no prescribed method so we have to come up with a method that does a good job of utilizing all of the evidence and reestablishing the corner in the position it was as best as we can. That is equitable and fair to all the parcels around that corner so sometimes you have to be creative in coming up with your system.

Now we have one more to look at. This is a common situation with non-rectangular surveys where we have a corner, a lost corner in this situation and we have lines projecting in four directions and only one of which is cardinal, what are we going to do with that lost corner?

Of course, we can do multiple things. We could do a grant boundary on any two of these corners or a compass rule between any two of those corners.

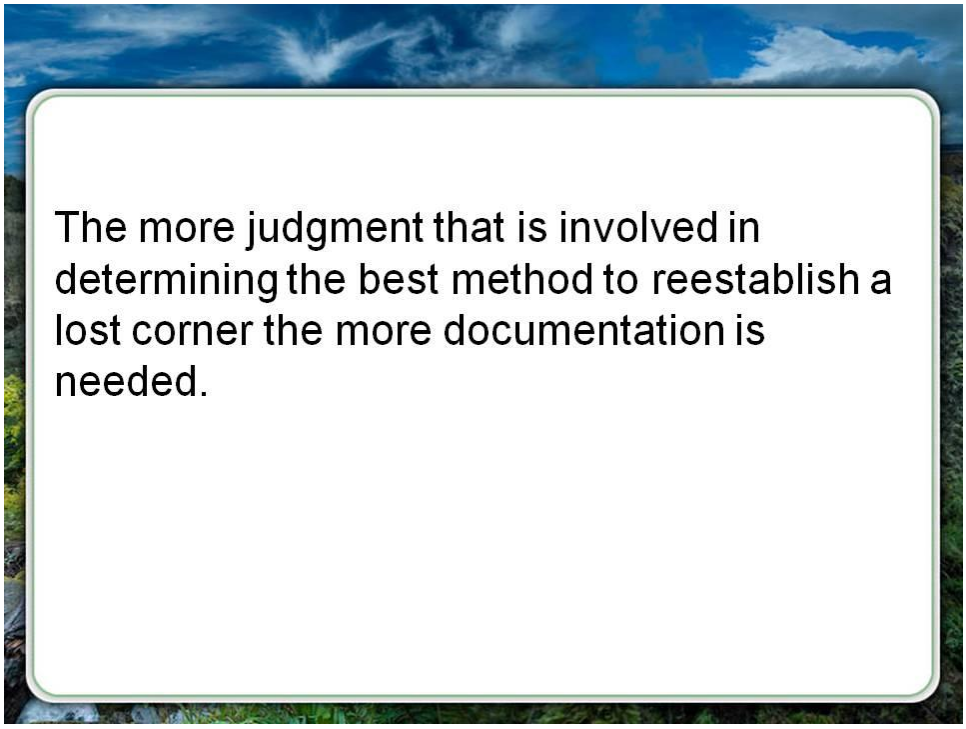


We could do some kind of distance - distance, distance - intersect thing,. You could do a bearing – bearing. I suppose that would work if you go all distances. Of course they're not going to match, so its difficult in reestablishing these corners because we don't have a prescribed method.

Again, the '47 Manual has a system in there called miscellaneous control. It gives the most weight to the closest corner, and the least weight to the farthest corner. You can have as many lines coming into a corner as you want and reestablish a corner that way, I think it is a good method and I think it's something to consider in this kind of a situation.

The thing that is most important is that you have all of the information and you tie to all of the controlling corners and based on all of the information, you make a decision where all of the corner points are going to go and protect all of the rights.

All four of these claims need to be protected. Of course the more judgment that's involved in determining the best method to reestablish a lost corner the more documentation that is needed.



Documentation

I think it is important when you document this record, that you do not just give the method. Here's the method I used, here's what I did. I think it is important that you document all of the methods that you considered, all the solutions that you considered, and with each solution, why you did not choose it and then with the method that you choose, why you chose it. In these kinds of corners, it is especially important because we do not have the prescribed method.

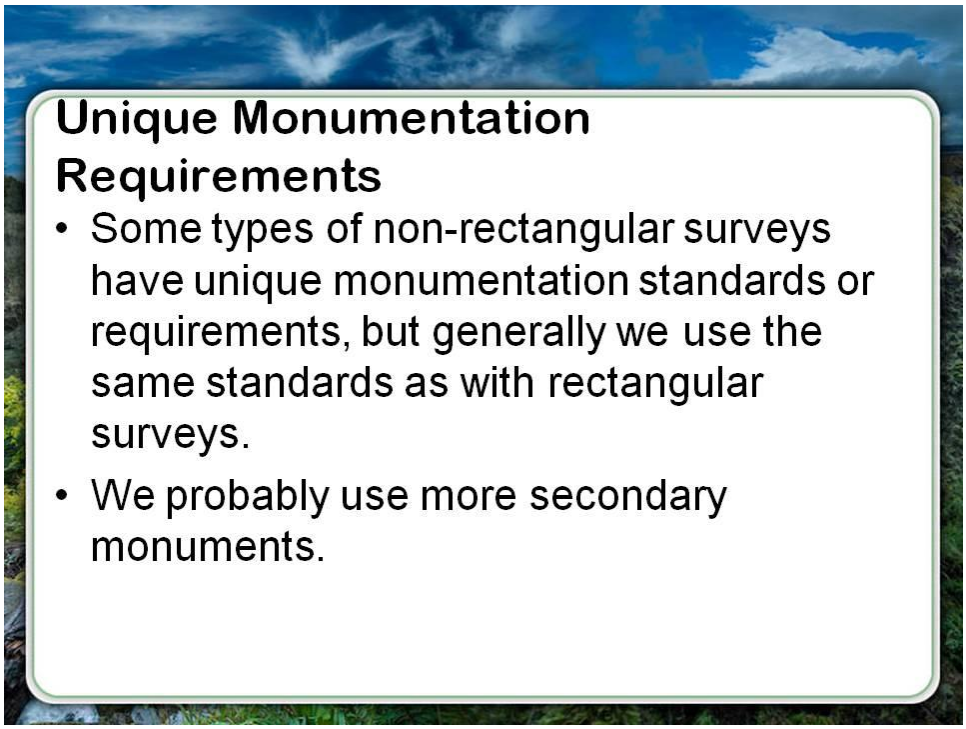
Often when we're dealing with non-rectangular surveys were dealing with land of high value. Because this is area that was surveyed or settled early so were dealing with high value land. Its important that everyone that follows after you understands why you put the corner where you did, why you chose the method you did, and if you're record of documentation is complete then its going to allow them to accept what you did and we end up with one corner. We do not end up with disputes in the future. So it's important to make that documentation complete and give all the information, everything you considered, why you rejected certain methods and why you ended up settling on the final method that you used.

Monumentation Requirements

I want to talk briefly about monumentation requirements, because there are a couple that are different.

Some types of non-rectangular surveys have unique monumentation standards or requirements. Generally we use the same standard as with rectangular surveys. One example is with mineral surveys.

Measuring to bearing trees, then measuring to the face instead of to the side center.

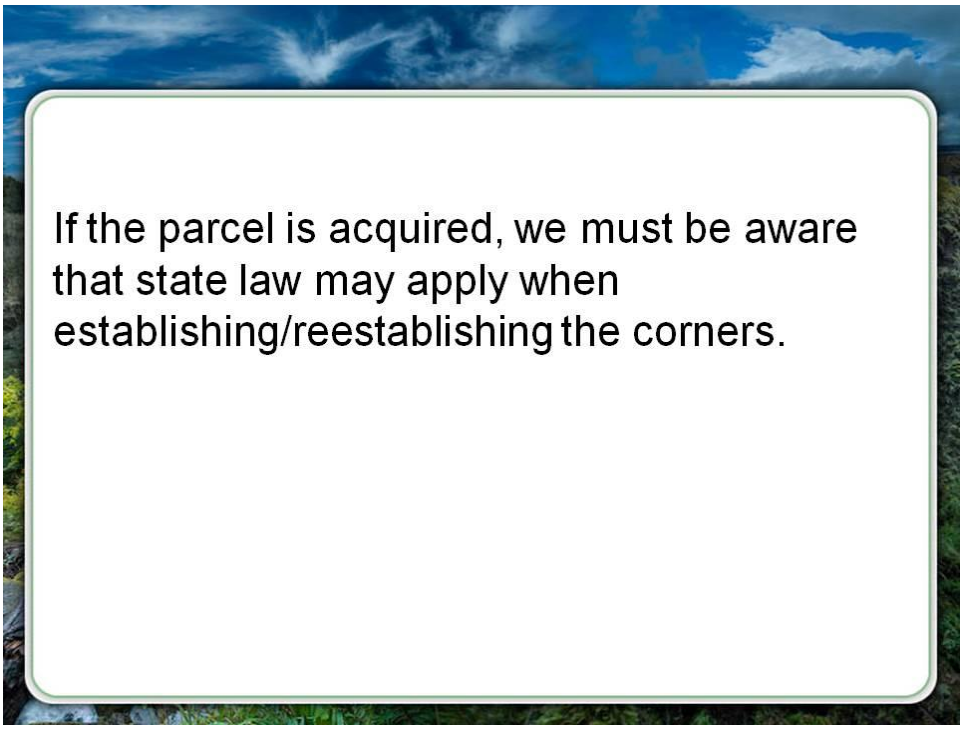


That's something unique, you need to know that. Generally, the non-rectangular surveys requirements were the same as the rectangular surveys, many times they were done by the deputy surveyors the same people doing the rectangular surveys.

The same people were approving and then putting them into the records. Be careful, some are done in feet, instead of chains. Reservation or grant boundaries, there were requirements that you might have mile posts instead of just angle points. You might have angle points and half mile and mileposts. You may just have mile posts. Make sure that you understand that generally though the standards are pretty much the same as far as the monuments themselves.

We probably use more secondary monuments and by that I mean smaller ones, drive rods, smaller caps, on non-rectangular surveys than we do on the rectangular surveys because often we have lots of corners close together. We may have situations where we will use a regulation monument every 4^{th} or 5^{th} monument and in between we may use some of the secondary monuments. That's something were going to see fairly regularly.

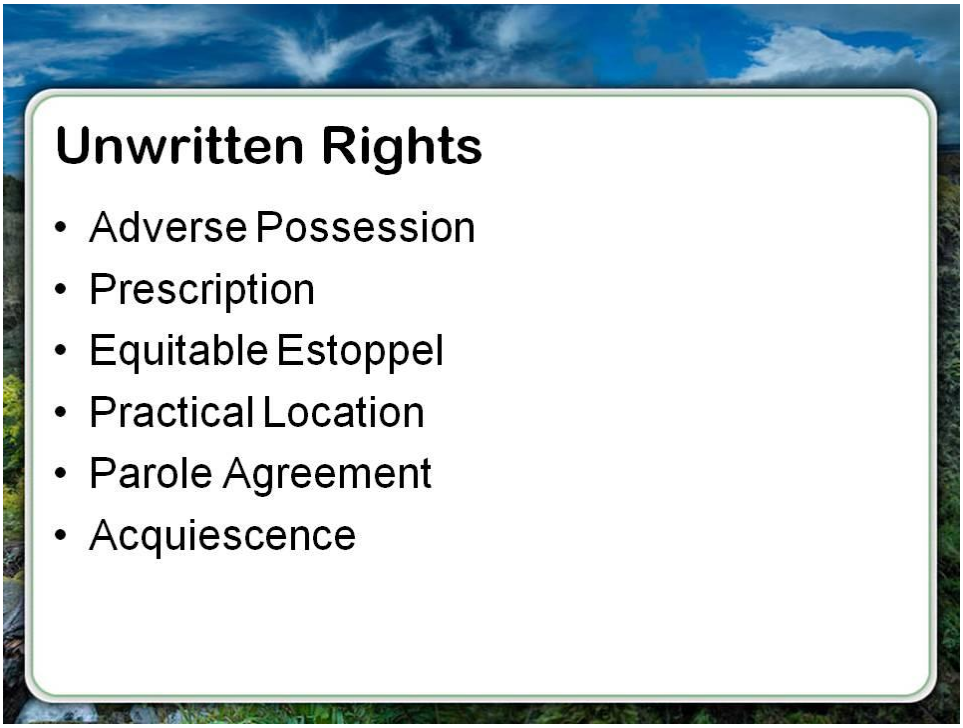
If a parcel is acquired, be aware that state law may apply when establishing/ reestablishing the corners, and there maybe unwritten rights to deal with. When we are acquiring parcels for both non and rectangular surveys, we may have to consider state law instead of just federal law.



We also may end up with unwritten rights of course. If it has always been in federal ownership then we don't have to worry about. Those unwritten rights are not going to take effect against the federal government. But if it has been in private ownership for 10, 15, 20, 30, 40 years and then we have acquired it, there maybe all kinds of baggage that comes along with that.

We may be able to survey the boundary, but there may be some additional issues acquired along with it. Adverse possession, or there may be right- of-ways, or easements out there.

Just need to be very careful with that. It seems that we do acquire land quite often that wasn't originally conveyed as a part of the non-rectangular survey, if we're getting those back, be careful that we understand those issues.



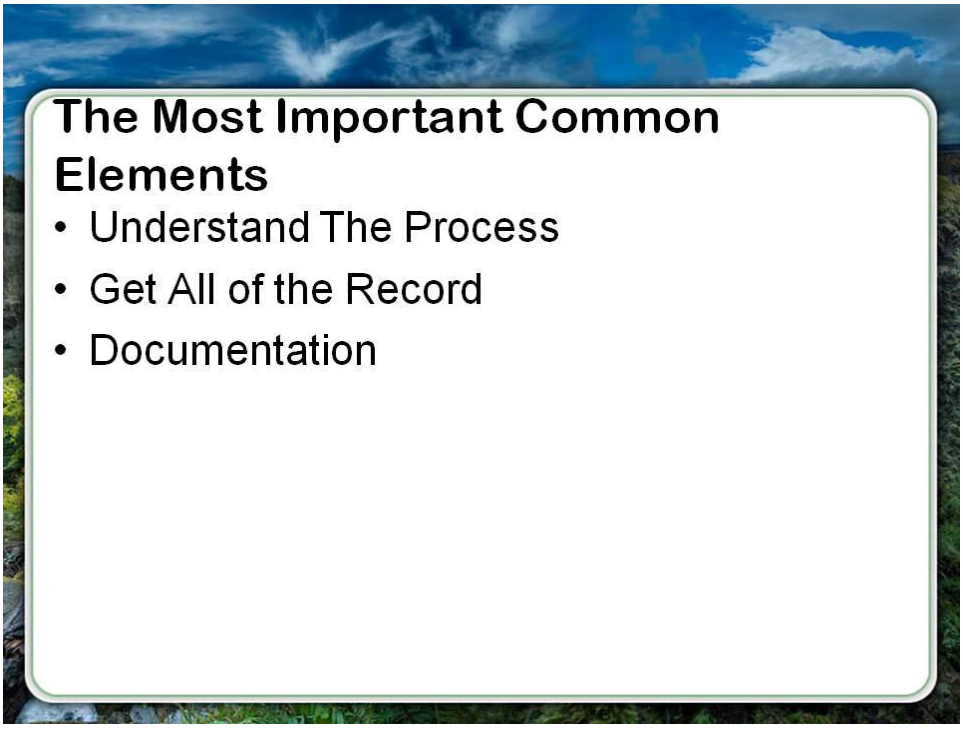
Conclusion

Let's just do a quick review of the important things that we need to consider in all of the non-rectangular surveys. First understand the process, each one of these has a different process. It's important that you know on the specific survey that you're dealing you know the process, you know what records were created, where those records were stored, how to get those records.

Even the same kind of claim may have a different process in different parts of the country or at different time frames. Second, get all of the records. Again we mentioned all of the places that you can find records, different agencies, different parts of the government, state, local, federal. Make sure you understand where those records are and how to get them. The BLM state office, those are people who understand the record system and can often give good advice on where to get the records.

Last is documentation. I can't emphasize enough when it comes to non-rectangular surveys because they're so unique, we use so many special methods in reestablishing corners, judgment is such a big part in reestablishing corners within the non-rectangular system.

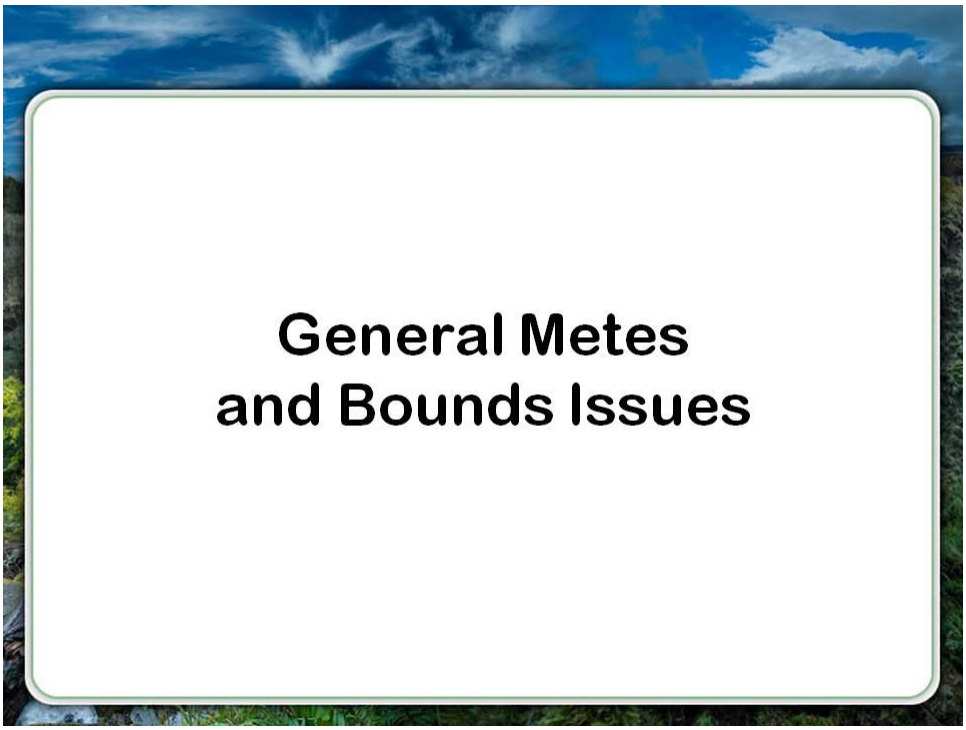
Documentation is just real key to making sure that what you do stands up over time. And that those who follow you can accept what you have done. Just make sure that you do a thorough job of that. This completes our section on the common elements. We'll get a look now at some of the specific non-rectangular surveys.



General Metes and Bounds Issues, Part 1

Introduction

Hello. I'm Dennis Mouland, cadastral coordinator for BLM here at the National Training Center in Phoenix. Many of you have met me before, either live in person, or over the years, or through the earlier courses that we had with CFedS.



Anyway, I'm not going to spend a lot of time introducing myself, most of you know who I am. You just saw Ron Scherler giving the common elements segment of this course. What we're doing here, is covering some basic generic things at the beginning of this non-rectangular course, to talk about things that all of these entities have in common. I am going to speak to you about general metes and bounds issues.

I want to make a few comments before we set our course today, for this course. That is first of all, those of you that are CFedS in the old course 1 and 2 of the original CFedS program, I even used some of these same slides we went through some of these principles then but we have a different audience potentially with this course. I'm going to use those things and go through some of the same things. Many people have said well you know that was simplistic stuff. I understand and essentially, it is.

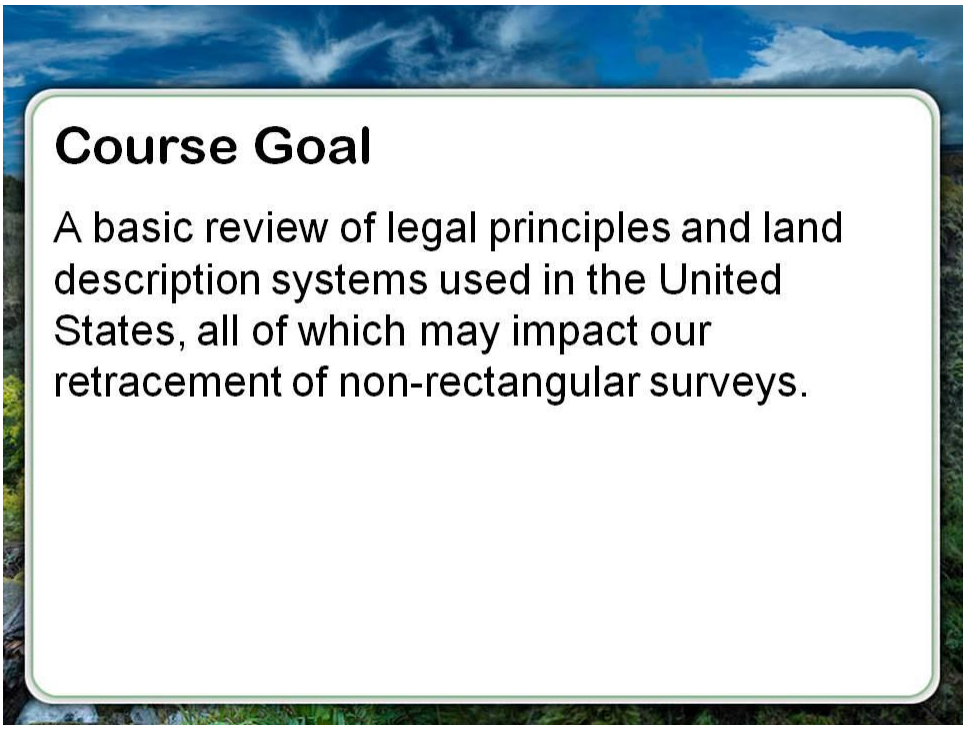
However, what I have learned, both out on the seminar circuit and teaching at the University of Wyoming, is that you'd be surprised how much some of us don't know. This is certainly a

segment or module of the course that you can look at or you might even fast-forward through some of it that is your choice.

It is designed to make sure we are all at the same basic foundational understanding of things because non-rectangular entity surveys are general metes and bounds surveys. They fall with very few exceptions, they fall into the same laws and principles and the rules that metes and bounds surveys have in the colonial states and Texas and Hawaii. So in case you see, I've seen that slide before, well there are 3 or 4 that I'm using again just to get across some points and to make sure that we're all there.

Course Goal

For this module, I want to set up a goal for this general metes and bounds course and that goal is simply this, we are going to have basic review of legal principles and land description systems used in the United States, all of which may impact our retracement of non-rectangular surveys.

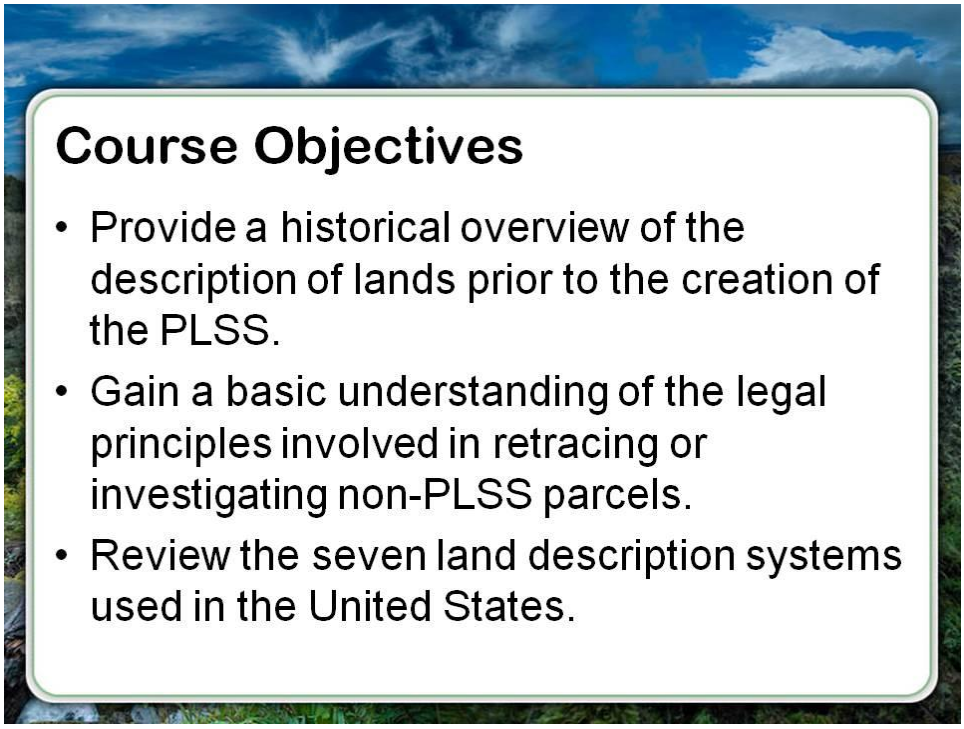


So that's an overall goal. In order to accomplish that goal we have three objectives.

Course Objectives

I want to provide you just a little historical overview of the description of land, prior to the creation of the public land survey system. Then we're going to gain a basic understanding of the legal principles involved in retracing or investigating non public land parcels or in other words for the most part, metes and bounds.

We will look at all seven of the descriptions or really only six of them because the seventh one is public lands which we have much more information on in other courses and we're focusing on those others, so that's kind of where we're going to go today with our course.



Historical Overview

A lot of people and me included admired Thomas Jefferson. He was not perfect and he certainly had some downfalls. Things that historically we have discovered about him but he was a big thinker. In fact a lot bigger than the United States was ready for, he had a lot of ideas about how the economy and how money and how things should be done and he wrote about them.

One of the things that of course, we as surveyors focused in on so much was his idea with the public land survey system, insisting on a rectangular grid. You know in reality it was not just that it was a rectangular grid. It was more that it was surveyed and described and marked on the ground before it would be conveyed. That really was the most significant thing that he insisted on and that ultimately came out of the 1785 Land Ordinance Act and the subsequent acts especially 1796 and 1805.

His vision for a survey at first word, is something that in the twenty-first century, wish that people would adhere to still. Because there are always problems when something is described and conveyed. Maybe goes that way for many years and changes in the chain of title. Now you get the survey and find some major glitch or poorly chosen words or the intent is totally unclear as to what they were doing.

I mentioned that because it was the driving force with the public land system and exactly the same with the metes and bounds world. With the Land Ordinance Act, we decided to go somewhere else with our pre-surveyed grid. In this case, a rectangular or cardinal grid. Even when we had non-rectangular surveys, we were still going to survey them first. This is why it's very rare, that you ever find the federal government conveying or even I'll use the word acknowledging rights to land in the public domain.

You will rarely find them use a metes and bounds description. What they did was take a metes and bounds situation, survey it, give it a name, plat it, notes, you know the whole nine yards just like were used to in the public land system. Then convey it by mineral survey number 1234, HES 567. They would convey using that the same scheme that was used in the public land system. So you see once again it was surveyed first.

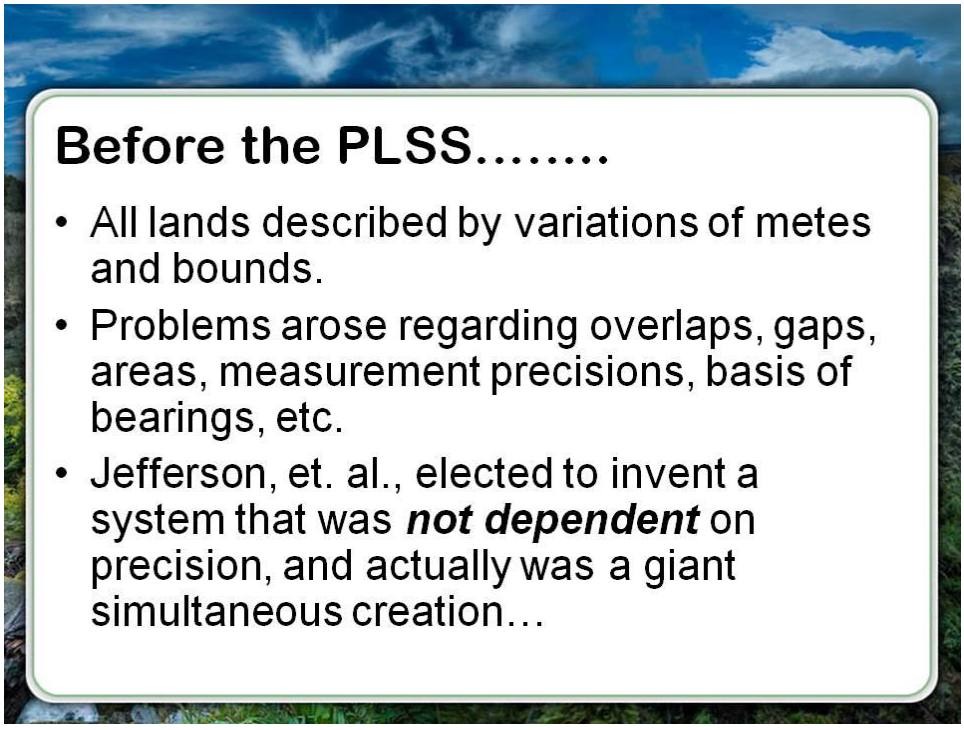
Before the PLSS

Before the public land system this helps us understand what was motivating Jefferson and some of his friends in the late 1700's. What really influenced him was the issues that were going on with metes and bounds before the public land survey system.

Let us take a look at some of these. Everything was described by some variation of metes and bounds a lot of it was what we call bounds.

There was a constant problem and there still is to this day in metes and bounds worlds. Problems arising where you have overlaps and gaps.

The areas are all inflated or people were exaggerating areas or reducing them based on the value of the land or usefulness of the land.



The precisions of measurements of course even back then you had to go really out of your way to get a precise survey. All of the basis of bearings issues whether it was magnetic or assume of course magnetic changes over time so there was all these issues that were there and it made surveying a mess.

It caused a constant situation of having to deal with more than just your parcel. You had to do deal with all the adjoiner parcels, figure out who came first, overlaps, gaps, and all of that stuff I just mentioned. So you know with these guys that was the world, these guys were used to in surveying, and of course Jefferson and many of the others had been surveyors. At least at part time been surveyors, so they understood this, they knew that we got to do something better.

Finally Jefferson and that clan elected to invent a system that was not dependent on precision, that's very important to remember. Actually, it was a giant simultaneous creation with some exceptions to that but a giant simultaneous creation. In other words, you were eliminating the junior/senior rights situation and in most cases, the public land system did that.

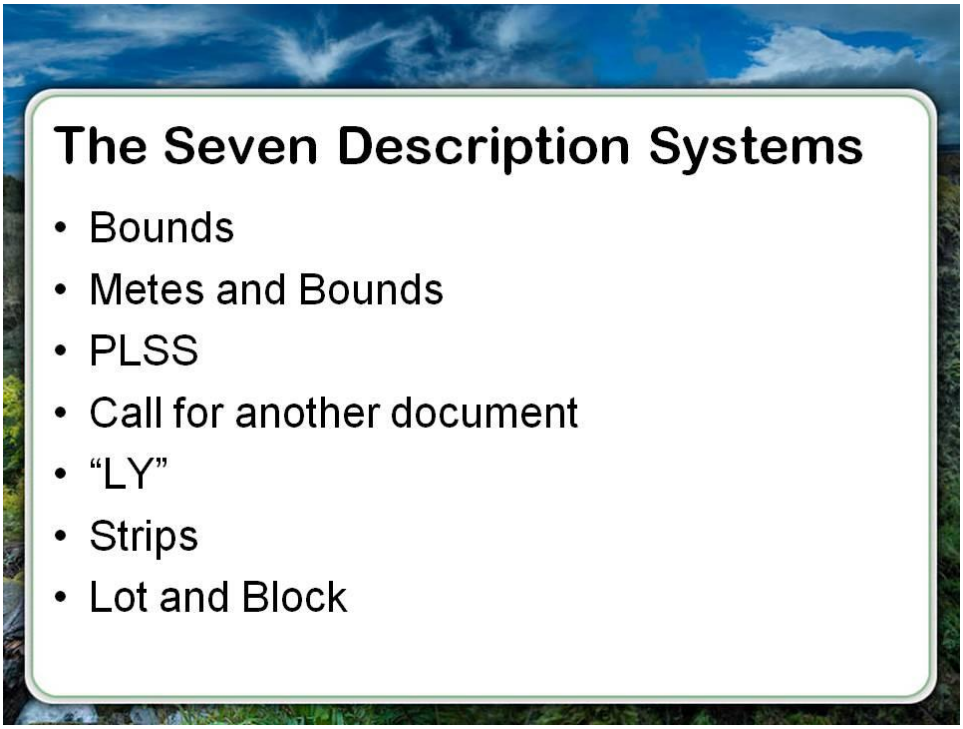
Now, here we are then with all this mess in the colonial days and then Jefferson and those folks invent the rectangular system, and of course it evolves for another 50, 60 years before it really gets to what we're used to today. But you know here that we're up against metes and bounds once again. We're having to deal with metes and bounds surveys that are in other, that are in parts of the world, here's a great example. When we came out in Ohio and they ran the seven ranges the first lines of the public land system.

One of the first things they had to do was honor the Grenville Treaty Line, which runs, North 75 East, or something like that, bearing through Ohio. It was a metes and bounds line and it did not conform, so they had to close against that. There were other Indian treaty lands and as soon as we got into the south, especially the old surveys in the south (Florida, Alabama, Mississippi, Louisiana), we started to deal with the French and Spanish grants that had already been conveyed and we were going to honor those and they were in a metes and bounds world.

Even though we invented the public land rectangular system and used it over the vast majority of the public domain, there was still a need for metes and bounds issues. That is what we are dealing with in this overall course.

Seven Land Description System

In the United States we have seven basic description systems or land description systems. We have bounds and I want to talk about each of these for a few minutes and give you some examples, but we have bounds, and we have metes and bounds which everyone is familiar with.



We have the public land system; we have what's called a call for another document. That's where whatever system it was described in before you simply call for that document.

In other words, it was recorded in book one, page one hundred, well then just call for it there.

We have what Gurdon Waddles, who was kind of the guru of legal descriptions in this country. We have what he calls LY descriptions. Those ones are a portion of another parcel such as the northerly hundred feet of something else that already exists. We have strip descriptions, which we of course see in easements and that sort of thing and then lot and block. Of course, really the public land system is a great modification of the lot and block system.

You would be surprised what federal surveyors have had to do with lot and block. Many townsites were created in the early frontier days where the federal government was the one that created the lots and blocks in that townsite. Still doing it in some places. BLM retraces lot and block surveys just like in a subdivision on some Indian reservations, townsites that are on Indian reservations and some of the U.S. Surveys up in Alaska. Further, there are places where the federal government is acquiring land in existing lot and block situations like subdivisions.

I'll give you a good example, Lake Tahoe. Congress passed some special legislation and authority probably 20 years ago now. It was to help maintain the environment in the Tahoe basin. There's all kinds of vacant land there that's lots in a subdivision. Just little quarter acre lots or even smaller that people own and they haven't built on and the government was giving authorization to the Forest Service to go in and purchase those lots on fair market value to keep them from being built on.

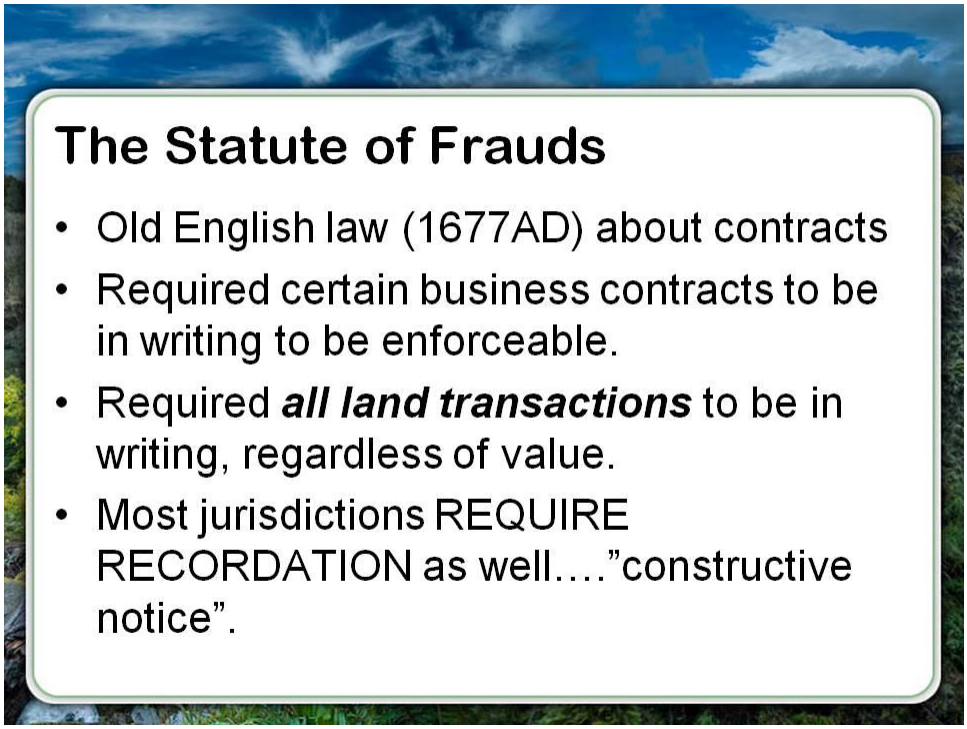
You can be in a residential subdivision with nice big homes, and then here is one little lot that has a national forest boundary signs on it. I saw some of that this summer traveling up there and it is awkward to see that and to realize that this piece of national forest land is 100 feet by 50 feet. That is how they are dealing with trying to keep people from building in the area, and adding more to the sewage and other environmental issues that affect Lake Tahoe.

My point being as a CFedS or as a federal surveyor working for BLM or some other agency, you never know when you're going to deal with these things in acquired basis or whatever. Those are kind of the seven description systems that we have in the United States. Before we discuss those though I want to cover a couple basic things of legal principles that we should know.

Statue of Frauds

We have what is called the statue of frauds. It's an old English law 1677 A.D. that was established about contracts. Now, this is England trying to establish basic business law - laws about commerce. Laws that affect the court system.

One of the reasons they did this was that they said you know there are certain things when you make a business deal, you sell something, or you do something with somebody that has to have a contract.



That is what the statue of frauds was about because there was an awful lot of fraud going on. You know, I could go up to somebody and say "Well hey you sold me your land for 100 bucks." "No I didn't," "yes you did."

And we go to court, and it's just he said she said whatever, arguing about whether he got the 100 bucks or whether you own the lands, there was nothing written down. These sort of debates were going on constantly in the English courts and the other governments as well.

The English were the ones that said we are going to establish what they call the Statue of Frauds, which eliminated or did not eliminate fraud that is for sure. But it put a limit and controlled the capability for people to commit fraud in contractual matters, in business or other similar matters so they came up with this and what it did was require certain business contracts had to be in

writing in order to be enforceable in the courts. That was the bottom line with the statue of frauds.

For us, in particular, we want to realize that all land transactions, the sale of land or even the giving of land, or an easement or any kind of an interest in land had to be in writing regardless of its value. So even if somebody gives you a piece of land, and there's no arguments between you, it still had to be in writing or it was not valid.

Here in the United States, almost every jurisdiction requires some kind of recordation and that is what we have come to call constructive notice. That is recording something in the courthouse or county clerk or recorder's office or whatever your jurisdiction calls it. The statue of frauds did not require recording.

Another layer of protection that we call constructive notice but, here's the thing to remember. A deed between two or more parties, usually just two, that involves the sale or transfer, we wont even use the word sale, the transfer of land interest, any land interest, is required to be in writing. I will use another example here, if I had a contract with somebody that I'm going to come speak about surveying for eight hours for your conference. They sign a contract with me and it says "Dennis you're going to come and do this for x number of dollars, you're going to do this subject, you're going to do it on this day, and you're going to do it you know," and we put all the details in there. That way if there becomes a problem like I didn't show up, they have a way to not pay me because I didn't live up to my side of the contract. I show up on the day I was supposed to, this has happened to me a couple of times, and they say "Oh we changed the schedule, you're not speaking till tomorrow now." And I say "well the contract says I'm speaking today and I got a flight out of here tonight." It is something that is enforceable, at least you attempt to enforce it. If we ever had to go to court, which I have never had to do with an association like that, but if I had to go to court I would say why.

You know, here's what the contract said, and that's what the courts are going to look at. They're going to look at it and say well Dennis you said you would do that course on that day, but you didn't show up Dennis, what's the deal? And I can whine and cry, I can do anything I want, I can say but I need the money, but it doesn't matter, because the contract was for me to speak on a certain day, and if I didn't show up, I don't get paid. So if we go to court, the court is going to look at what's in writing.

What is in writing and that is the essence of the statue of frauds. Any handshake deals, those are generally especially with land, they are invalid. Even in most states, I think Arizona it's a 500 dollar limit, any kind of a contract for anything, if you want to go to court with it, if it's value is 500 dollars or more you have to have it in writing or you're out of luck in court.

So every state has a different dollar limit. But it's still that same statue of frauds concept of protecting both parties and protecting the courts from just non-stop of onslaught of people who are claiming this, that, or the other based on verbal deals. Now if you want to see how crazy it can get in court with people who have got verbal deals, watch Judge Judy or something similar you know. Because that's usually what that's about.

The judge and there is the other Judge Brown, and there's 3 or 4 of those shows now but they just make their best shot. They just take there best guess or flip a coin or whatever they do. You know, they got to read the witnesses and see who they think is lying or whatever they do. But you know ninety percent of the time with those cases if somebody had just written that down it would be okay. It's true. Of course that's where the statue of frauds comes in.

So what we need to understand is that when I sell you land or transfer some kind of interest to you or vice versa, that document is the contract. We call it a deed, but it is in fact a contract, it's the deal.

The statue of frauds requires it to be in writing and our other statue that's here in the United States requires it to be recorded, so there's constructive notice that way everyone on earth can know that this happened. In other words, land ownership and land transfers cannot be done in secret, in a dark corner.

Just imagine if you were the power company trying to put in a power line for twenty miles and you cross all these different pieces of land. You have to buy an easement for each one of those people, and there's no way to know who owns it. No way to figure out who owns the land or what rights they have on that land, or whether they even have a right to give you an easement because believe it or not most of you probably have a mortgage on your land, and that mortgage doesn't. It specifically says you can't give an easement without our permission, the mortgage company is saying that. You can't give an easement without our permission.

How am I the power company, the highway department or any utility to know who owns what and what rights you have. The only way we'll know is by constructive notice. So that kind of differentiates between statute of fraud and constructive notice their intent purpose. Whenever you go to court on a written document, the court looks into the words of the document to see what the intent of the parties was at the time of the contract, it doesn't matter what their intent is now.

In other words, if I signed a contract to sell you this for 100 bucks, and we have it in writing, but then a few weeks later, after the sale I just said you know that was worth 200 bucks I would rather have 200 dollars. I can't go back on that. If we went to court, the court is going to look at that and say Dennis you said it was 100 dollars and that was the deal. If you wanted to change that you had to do it before it was done. If you wanted to change it since this was in writing you have to change it in writing. The same thing occurs right, with deeds. You find in the chain of title, there's something wrong, there's a defect it may not make the deed invalid that's pretty rare but the courts are loathed to declare a deed invalid.

The description may have errors in it, or may be very murky as to the intent. And you know you can go back to people years later and they say oh that's not what we meant, and both parties could agree that's not what we meant, we meant to have it over here, but I as a surveyor can't do that unless the words in the deed the "contract" say I can. So intent of the parties at the time, is what's important and if you want to change that intent, that change has to be in writing.

So you found a defect in the title, that's going to require a change if they want to get that fixed. Sometimes its up to the client or the landowner if they want to get it fixed. But what do you want

to do with this, maybe you have to sue for quiet title, maybe they want to actually go against their neighbor on an adverse possession claim, maybe they want to, maybe they just need to go get quick claim deed from several other people who might possibly have an interest here and are cooperative. Whatever, but the point is, if the intent is not clear, or if the intent actually says something other than what's really there on the ground, which is what we surveyors find so often.

Then the intent of the parties, we can't adjust that and change that constantly, it's what's in writing. It's this principle then that causes all of the trouble if you want to put it that way, when you and I go out and do a survey and we got some metes and bounds or non public lands description. Because you get into it and it may have flaws or it wasn't written very clearly. They left something out, made some dumb assumptions, or whatever, and then you go out on the ground and measure stuff and even that adds even more chaos to it because you don't have the facts that they assumed existed.

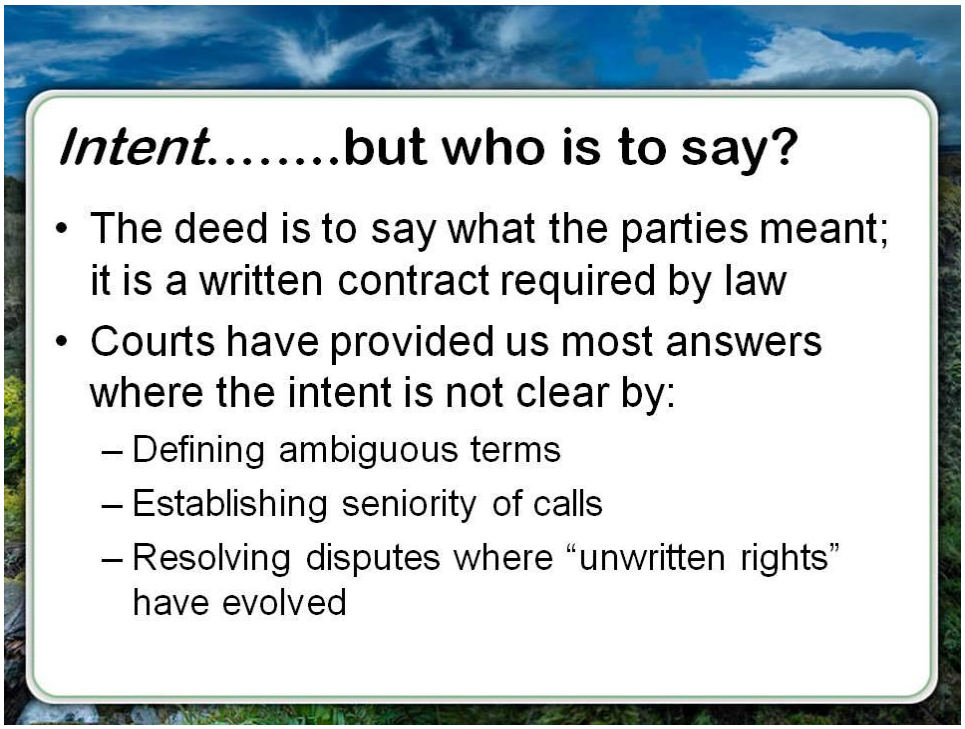
It turns out the measurements are different. Total areas different and all of those sort of things but you and I are bound to the intent of the original parties of that parcel and that line and that corner or whatever it is you're dealing with in particular, was created.

Intent

So let's understand that intent of the parties is not about you and I and what we think. The deed is to say what the parties meant, it is the written contract. The courts have provided us answers where the intent is not clear.

In most cases, they've given these things, they've helped us understand about ambiguous terms. They've helped us establish the seniority of calls which I will discuss here in a minute.

They've helped us understand some of the disputes and how to resolve them where there's "unwritten rights," and they evolved or ripened potentially there on the ground.



Let's remember that the intent is what the parties who wrote the contract said and that does not mean you look at the most recent deed. The most recent deed may say exactly what the first deed said 100 years ago for that parcel, if it was created then. But, in many cases those change over the years, sometimes for the worse, once in a while for the better. But what I'm really interested in, what words were used the first time this line was created?

So even though the parcel was sold maybe another 20 times between different people, and even though the description I have today has all these bearings and distances you know, the bearings are to the second, and the distances are to the hundredth of a foot and they call for monuments and all of that. The document I'm interested in is the deed that first created that line.

If I went back to that and its bearing to the nearest degree and the distances to the nearest foot and it didn't call for any monuments or called for different monuments, that document is what controls the intent when that parcel, when that line was created. I'm going to have to assess whether the current deed still reflects the same intent. If it doesn't, then we have a problem, but the parties that created that line are the ones whose intent we are most interested in.

I find that this is a problem with many surveyors where they'll just go and look at the most recent deed. In fact, I've seen them use it as an excuse, "well did you realize that this deed doesn't have anything to do with the chain of title." "Hey! That's not my job, the client just handed me his deed," you know it's still wet, the ink signature got recorded yesterday. "He just handed me his deed, and I put that on the ground!" Well, folks I don't believe that is a land survey. That's not a land survey, that may be a deed interpretation on the ground but it's not a land survey.

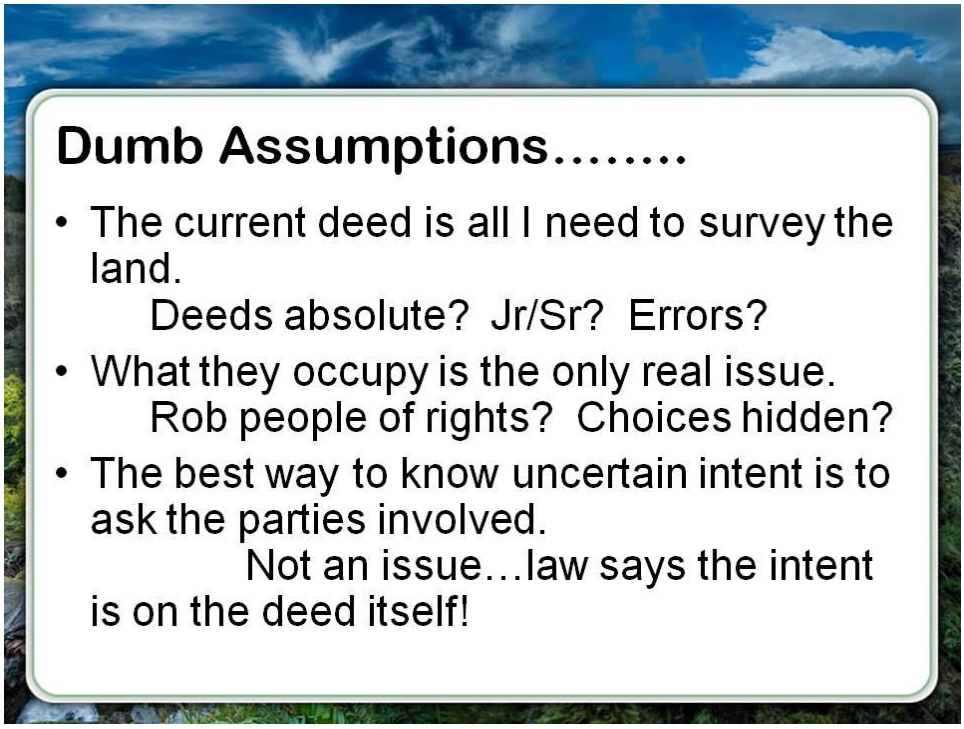
A land survey is going to look at the adjoiners, especially with metes and bounds. Of course the reason for that is because metes and bounds are not simultaneous. It is generally a sequential conveyance, right? So that's why the intent of the parties going back and looking at the beginning was so important.

Dumb Assumptions

When I'm writing descriptions, I have found some pretty dumb things that I've done and I've found some really dumb things that other people have done.

Now let's just think about some of these. This is the one that I just mentioned, the current deed is all I need to survey the land.

Well, is a deed absolute folks? I don't think so. I just gave you an example of that. Just because my deed calls for part of your land doesn't mean I own your land. My deed may say it, but it may be an error.



Are there any junior/senior rights? As we'll see in review here in a few minutes, you know that you can't sell what you don't own. When I sold it the second time, I didn't own it, so I couldn't sell it. Even though the deed says I did. So deeds aren't absolute. So you're not really interested in just what this current deed says.

Here's another thing, boy I've seen this a lot in the national magazines in the last year or two. What they occupy is the only real issue. Is that right? I can just go out there and fence anything I want as long as nobody argues with me for 10 or 15 years or whatever you're statue of limitations is in your state for adverse possession, then its mine? That concept what they occupy is the only real issue robs people of their rights. It robs them to realize that someone is encroaching on them. It hides choices from them. It takes that away from them to be able to deal with the problem. What do you even need land surveyors for? If what you occupy is all that matters, then just build a good fence.

So, that's an assumption that I see all the time. This other one ties back to a discussion earlier and that was the best way to know uncertain intent is to ask the parties involved. I'm just telling you, you can ask them what their intent was and they may say whatever, it doesn't matter. Just understand that's not an issue the law says the intent is on the deed itself.

I don't care if two parties did something, you go out and survey it and it puts it here and they meant to have it here, and both parties say, "oh not there we meant to have it there!" You can't do that surveyors. You have to tell them then you guys need to, if it's recent, then you need to do a correction deed, it depends on your state laws and procedures.

Correction deeds usually can work within a short period of time. You may have to quit claim this and depending on your subdivision laws and that sort of thing you may have to get county zoning and planning approval. I got to go through all of this because you're going to sell a small piece of land, or convey one. But you know, hey that's what happens when you don't put a clear intent.

Now, I could wave a magic wand, and I'd wave a magic wand and every surveyor in the United States when he or she writes a legal description, its perfect! That would be nice, but you know what it doesn't solve the problem does it? Because there's 10 billion poorly worded legal descriptions in your courthouse today. And there's probably another couple hundred thousand recorded while I'm here taping this.

We need to recognize that's there's an awful lot of people writing legal descriptions who have no business doing it. Some of them are realtors, lawyers, landowners, title companies. Not paying attention, or understanding the things that you and I as land surveyors should know and should understand.

Records

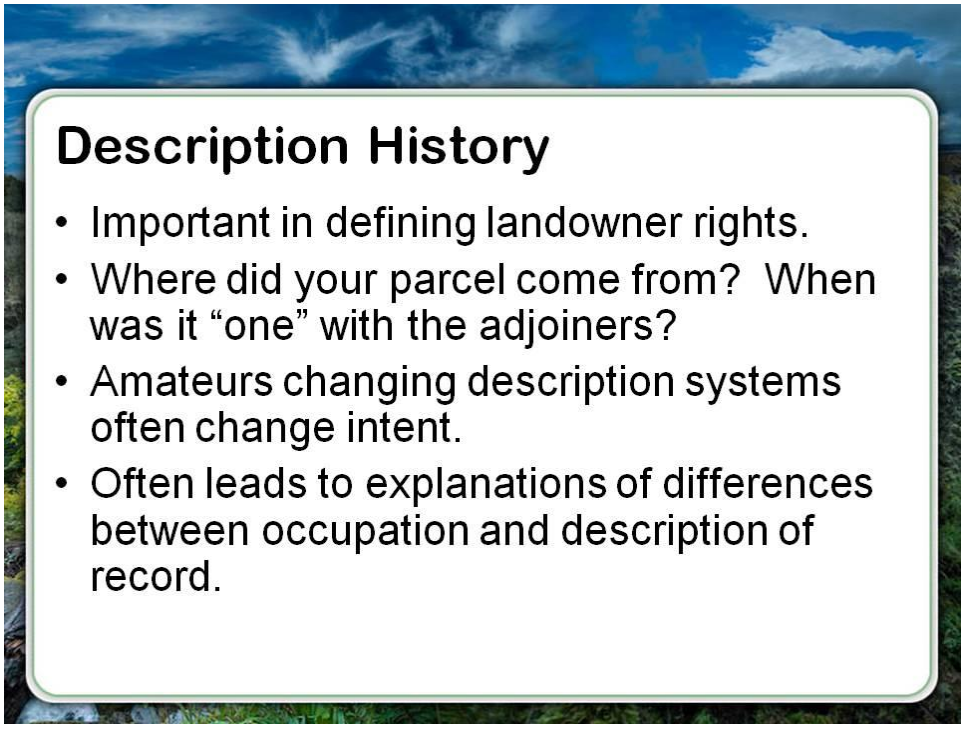
I want to talk for a moment about this record then what we are looking at when we go back into the chain of title, look at the deeds. And I want to give you just a little different way to look at it. When we as surveyors and in the title industry talk about chain of title, what they are really talking about, or what is most often being referenced is when did the piece of land start? He sold it to this guy, they sold it to this corporation, this corporation split it up this way, these guys did this. You're looking at this chain and how it occurred in what order and the dates and that sort of thing. You and I, as land surveyors have an interest in the chain of title, but even more so we have an interest in the same documents but from a different perspective and that's the description history.

Description History

What is the history of the description of this parcel? Gave you an example a few minutes ago. An old one that started out without very good measurements and maybe didn't call for monuments at all and now the deeds you got now are real precise, legal description, supposedly the same piece of land. Now I'm not saying they can't be the same piece of land, but its, I as a land surveyor, that's my specialty right? Isn't that what we do?

I'm going to look at that and see is that in fact that same piece of land? Not just based on the numbers, but based on the intent. Based on the data that's given and make sure that none of those dumb assumptions got made along the way, make sure the people that wrote the legal descriptions in the meantime, knew what they were doing. And again, I think that's, I wont even give that a 50, 50 shot, I think its like 10 out of 100 chance that the legal that goes in and gets recorded is actually properly written and constructed.

So I'm looking at those things and I want to see the description history on the same documents as the chain of title.



The description history helps me define the landowners rights. It helps me understand what their intent was, where did that parcel come from?

When was it one with the adjoiners? In other words, when did this get carved out of some bigger piece.

There are amateurs out there that are constantly changing description systems, and that's like taking a parcel that's public lands and converting it to metes and bounds or vice versa. When you change descriptions systems, unless you're very careful, you will change the intent and a lot of people don't realize that.

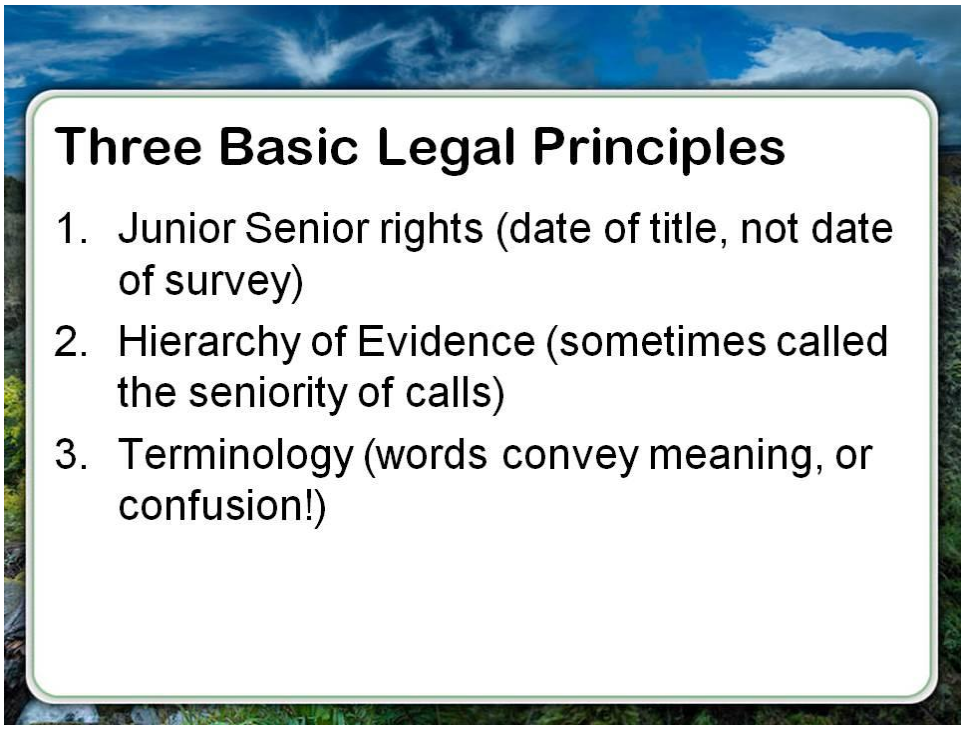
So it's these kinds of things that you find in the description history, that often will lead you to an explanation of what's going on. Why are there differences between the occupation, of the description of record. Why there's a difference between the description of record.

Description history is one of those things that we take a look at and it's because it helps us understand some basic issues about the parcel we're using and it's relationship to the parcels around it.

Basic Legal Principles

Now there are three basic legal principles that we're going to talk about.
They are junior/senior rights which I mentioned earlier. And we're talking about date of title, not date of survey when were talking about metes and bounds. Hierarchy of evidence.

You know I might mention on that number one you're going to find out with some of these non-rectangular entities out there on the public domain, that the date of title may not even be the issue it's the date of entry and I'll let you find that out as the speakers cover those things.

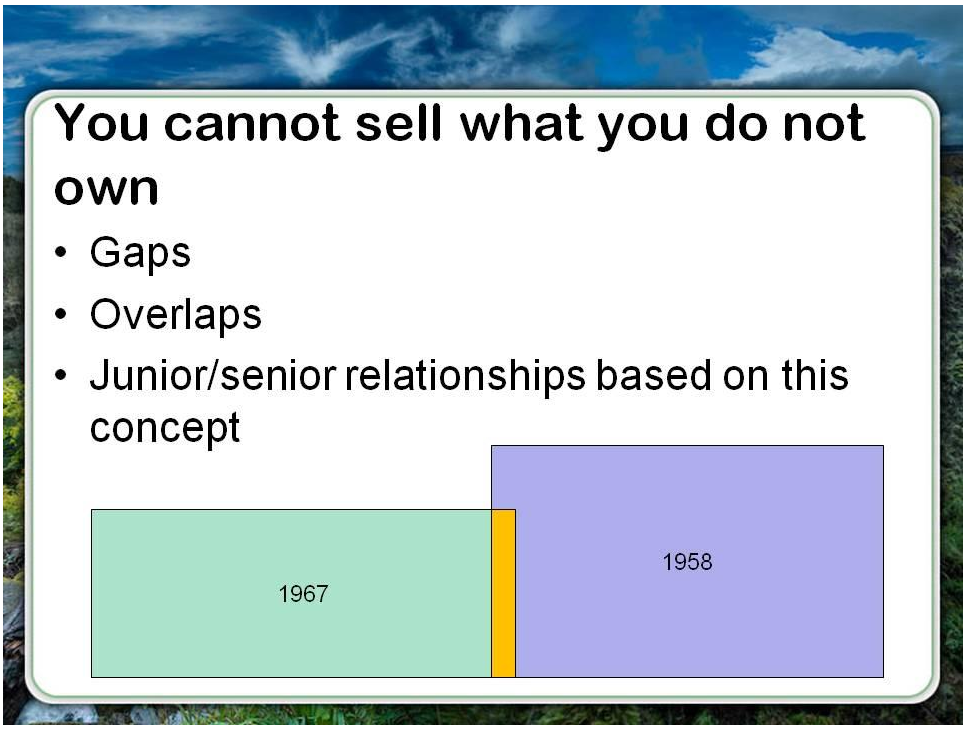


It's not a simple as you think. Especially if that's coming from a patent, a United States patent for new rights.

Hierarchy of Evidence (sometimes called seniority of calls) and the terminology and these are the things that I mentioned as we began this course talking about the basic principles we wanted to take a look at.

You Can't Sell What You Don't Own

Let's take a look at you cannot sell what you do not own. You guys are familiar with this and its simple really, it can get complicated at times but you're familiar enough with this to know. All of this that's blue belonged to the same guy. In 1958 he sells that piece and then several years later in 1967 he sells this piece and it overlaps, in other words, he sold the yellow strip twice. These things happen all the time.



They are all over the place in a metes and bounds world. And it's important for us to recognize this is the sort of thing that Jefferson and those guys were trying to fix. See this doesn't happen very often in the public land system and when it does there is some other major error that has caused it to occur but in the metes and bounds world, this happens quite often.

You can't sell what you do not own. That's how we deal with overlaps. There are also gaps where you know the opposite happens where I sold this and I sold this and I thought when I sold it that they were adjoining but they're not, it left a 5-foot strip through the middle of this property. And these things happen, there all over the place out there.

I did a survey on I guess it was a 20 acre aliquot part in Grand Junction, Colorado, where some furniture company was going to put a big furniture warehouse. The parcel started out as this 20-acre aliquot part, and then the owners many years ago sold off the north half and then a couple years later they sold the south 60. I forget exactly the number here. But it turned out the section was big and so when we came in and surveyed this land. You could see it split, there were two different owners, it went that way for forty years, and then this furniture company wanted to put their warehouse there. They bought both of those pieces of land and thought they owned the whole 20 acres.

We go out and do the survey and discover and there's a 5 foot strip roughly, 5 or 6 feet through the middle of the land. That's a pretty significant issue, it's going to go right in the middle of a several million dollar development project.

So I'm not going to blow that off and say "oh I'm sure they intended to come up," I don't know what their intent was other than what's in the writings. In the writings we've got one that said

north half and the other one that said South 60. If that turns out to be anything other than 1320, in this case it could be 1325, or 1310 or 35 something like that I don't know. It was long, is my point. So all of a sudden we got a gap through the middle that still belongs to the old owner 80 years ago and that was in a mining company corporation that's gone bankrupt, can't find anybody to sign a quick claim deed. Yet we as surveyors, that's our specialty, that's what we do is identify those kind of things, not just go out and measure and make a pretty little drawing. Come back and tell them you got a problem here. I know some people in government they see surveyors as problem creators, we don't create problems.

I don't want to get nasty about, but I don't care for that it shows their ignorance. I don't create problems, those problems are out there, there already there. That's like blaming your doctor for your heart trouble, you know? The doctor says "well you've got this problem with your heart." "You're fault doctor! You made it…," see we need to get people out of that thinking.

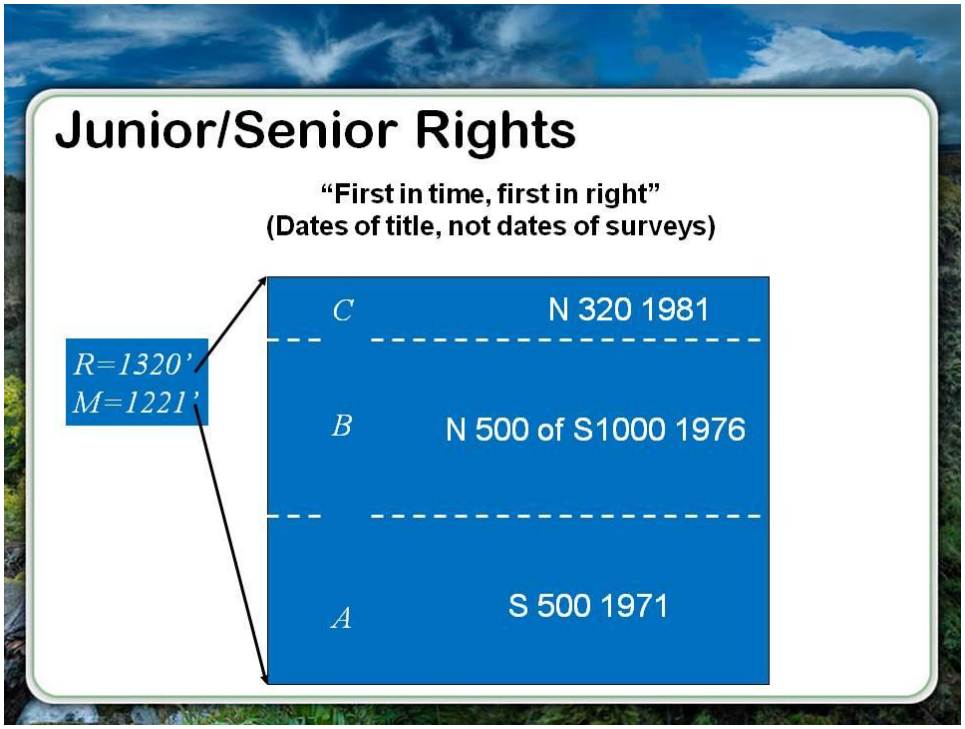
Folks you can understand that even using the boundary evidence standards that we have for Indian country that you learn in the seventh of the original CFedS courses. That's what some of those documents are for, the chain of surveys and the land description reviews and stuff. Without even going into the field just to identify "Hey there's a potential of a 5 foot you know a gap in this property," because they weren't thinking when they wrote down their intent, they weren't thinking. So all concepts of junior/senior relationships are based on this principle you cannot sell what you do not own. And that's what we see here.

Example

So let's look at a real quick example, and I used this one in the original CFedS courses but I won't make you suffer too long, we have 40 acre aliquot part here.

But it was conveyed off by LY descriptions. Which are a subset really of metes and bounds. It's supposed to be 1,320 feet north and south but it's almost a hundred feet short with 99 feet chain and a half.

The owners of this property, up in Flagstaff. The owners of this property they own the whole 40 acres. They sold off the south 500 feet in 1971. Then in 1976 a few years later they sold the north 500



feet of the south 1,000 feet. No problem, so far we've got 500 feet and 500 feet that's 1,000 feet. Of course, in the record that's 1320 right?

In 1981 they sold what they thought they had left, 320 feet, the north 320 feet but in reality they didn't have 1320 feet to sell. They only had 1221 feet to sell. And so first in time, first in right, we need to understand how that works. A-got his land, B-got his land, and C-did not get the 320 feet. They only got 100 or no 219 feet I guess or 221 feet or whatever. This isn't a math class today.

So where did that leave owner C? He said I bought 320 feet so I'm going to take 320 feet. So he moved his fence out north about 100 feet on the national forest land and that's how I got involved. He built a fence and a road through an archeological site, destroyed all kinds of land and we took him to court and he lost and paid lots of money in fines.

Here's the thing that frustrated me the most, he hired a land surveyor, to show him where his land was and do you think that that surveyor went and looked at adjoiner deeds? That surveyor was hired and he had that philosophy that all I have to do is take the current deed from C and put that on the ground and I will be able to survey his land. And he even went down to these corners down here for a line and shot the distances but could find get the and notice that it is a hundred feet short. That did not even bother him – he did not even think about it. I just submit to you friends that is not a survey. That is just an embarrassing representation of a measurement that has nothing to do with surveying. A surveyor looks at the chain of title, looks at the description history, looks at the junior/senior rights, it looks at evidence – it looks at all of those things right.

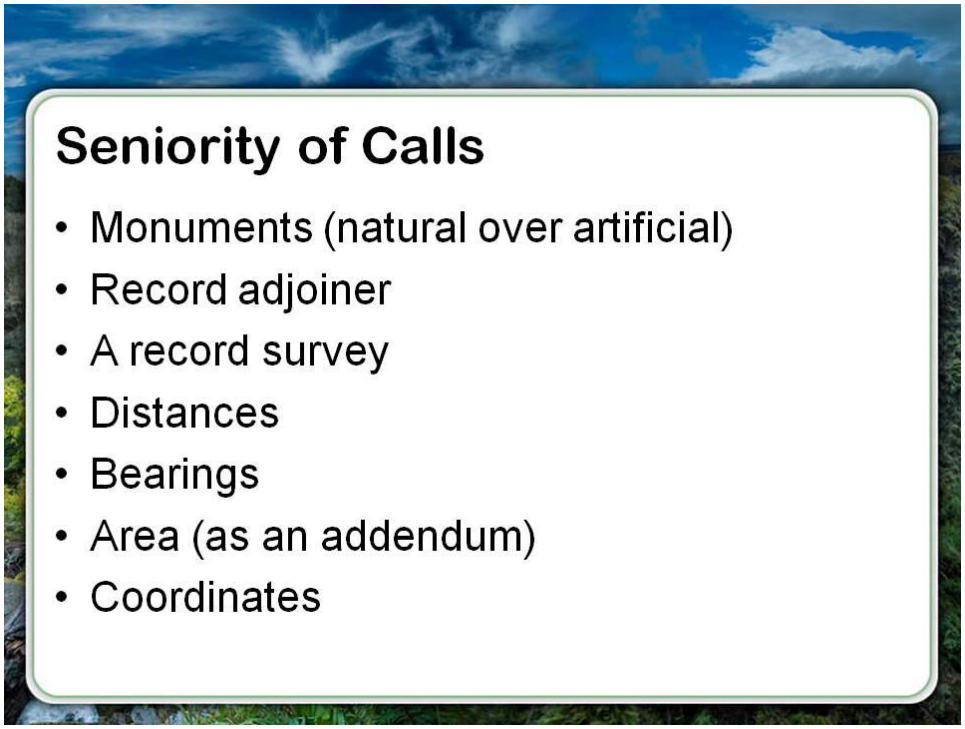
These things can happen in Indian country on private lands and even on federal lands. There's places where the federal government has acquired land and that land is not senior in title to its adjoiners event though now it is the feds that own it. We have to pay attention to what we in the government call land status. The ownership of the land, what its title is, what kind of title, how it stands up next to its adjoiners – that's all part of the land status and we need to pay attention to those things so that is just an example of what can happen.

Seniority of Calls

I want to cover the seniority of calls for a minute. This is called different things in a couple deferent text books that you read but you know that monuments are always given as the first thing and some books divide that between natural monuments over artificial monuments.
Call for an adjoiner, a record survey that it calls for, and then distances, bearings, area when it is used as an addendum, and then some areas coordinates are at the last.

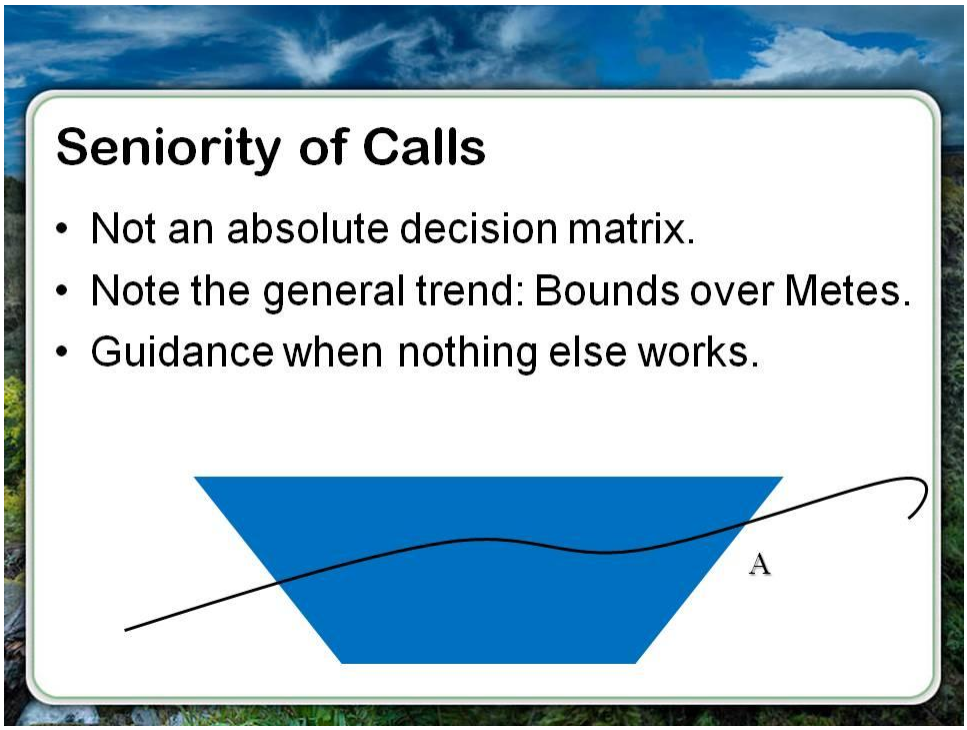
Now I want you to think about these for a moment because the seniority of calls has been abused. I have noticed many people who teach surveying or do surveying and they want to turn surveying into engineering. Surveying is complicated and it deals with all measurement things it also deals with these legal things, evidence things and all this stuff you know engineering deals with math. It deals with physics.

Will the water flow here or not? How do we get the water off this? How do we construct this ramp on the highway? How do we …you know…what level does the bridge have to be?



These are all engineering things. Those are really questions of math and science and I am not denigrating it, I do not know how to do most of that.

We need to understand that we cannot approach surveying from and engineering point of view. That is what people have been doing with their seniority of calls.



They look at it and say I have a call for a monument and I have a record survey. The call for the monument is higher than the record survey so I have to go with this. Not true.

So we need to understand how to really use this, how to properly use this system. The seniority of calls is not an absolute

decision matrix like it would be in engineering. Notice that the general trend is that bounds are better than metes. Those top three things are bounds; the bottom four is metes. Metes being measurements, bounds being real or legal entities that we are up against. It is not that bounds are better than metes, but that has always been true. No matter how well we can measure, bounds will always be better than metes the seniority of calls that we have is given to us because we need guidance when we cannot figure what the party is intended. That is really what that is.

I have used these analogies for years and I do not want to bore you whether you have heard it before in a football game or any sport. You have 1st and 10, you do not kick the ball away on first and 10. You do not give it to the other team. You do not kick that away until you absolutely have to. In a similar way, we do not kick in the seniority of calls until we have to.

Here are the words that the party gave me in a description and I read it and I try to figure out what they meant. If there are conflicts, in there I am still going to try to figure out what they meant and the deed itself may work out the conflicts. However, if the deed does not work out the conflicts then the courts have given us this seniority of calls to help figure it out. Well I cannot figure out what to do with this bearing distance call and this monument call, and I believe that is the same monument they called for, so I am going to use the monument.

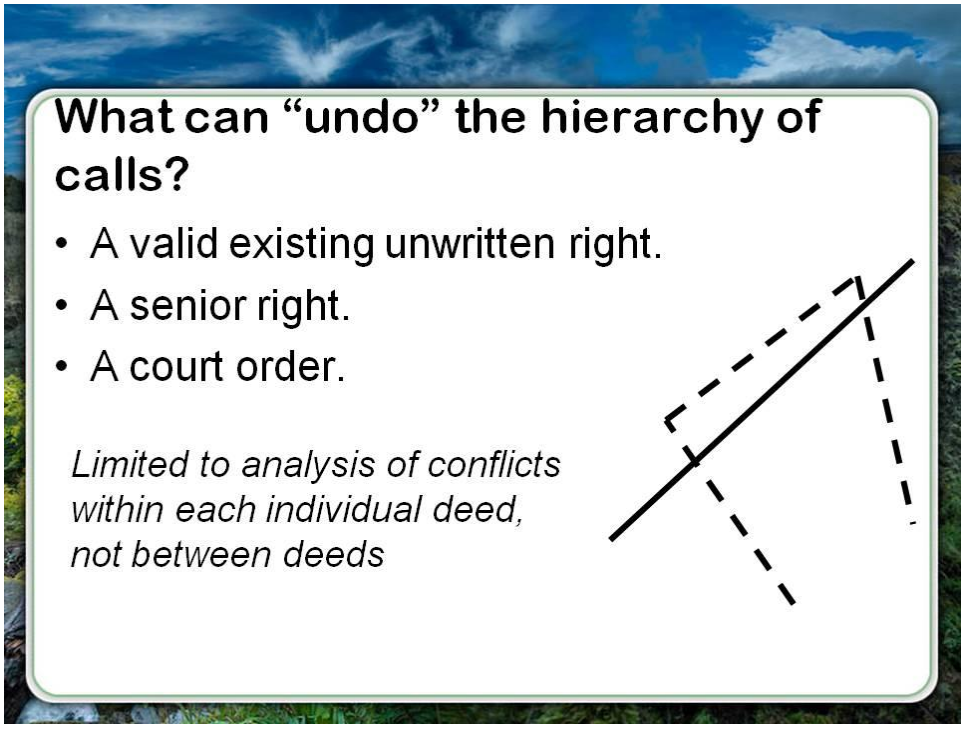
I used the decision matrix because I could not figure out using the deed its own conflicts, and there are usually conflicts within a given deed. One more word of caution with the seniority of calls, I have noticed many a surveyor using the seniority of calls as somewhat of a way to rate or measure their deed against an adjoiner deed. They have information in this deed that their client has or is the subject of their survey, and there is a deed with this other parcel, that is adjoining it.

Well that adjoiner parcel calls for a monument and mine does not. The adjoiner parcel wins. Seniority of calls is about developing and resolving conflicts within one document. Then I may have to go to an adjoiner and there may be conflicts in the adjoiner documents. It is not take two or three deeds around an area, to determine which one has the strongest calls. That could be misleading. I could have an adjoiner deed that calls for a monument, but that parcel was not created until 50 years after mine. Mine had senior rights, so I do not really care that it called for that monument. That may help me figure some things out there but only if it was done correctly.

That is the complexities of metes and bounds. However, that is how it works. So do not use this to compare what elements your deed has and what elements some other deed has to see if yours is better because it calls for a monument or it is higher in the seniority of calls. That is not its purpose it is to compare and resolve conflicts within calls in a description of and by that description itself.

Now some things can undo the hierarchy of calls. I could have a document that calls for a monument. My deed you know could close perfectly normal, but look if there is a valid existing unwritten right that could undo the hierarchy of calls if there is just a senior right in other words, junior/senior situation, the land I just gave you that example; and a court order.

So these are the things that can undo the hierarchy of calls so be aware that it is not this absolute decision matrix.



There are all sorts of other things that must be considered when you are doing this. As the note there says, it is limited to analysis of conflicts within each individual deed not between deeds.

Of the things that we are talking about the courts have helped us with the seniority of calls that have come from court cases, junior/senior have also come from court cases. There is one more big area, and that is terminology. That has also come from court cases; and I just mentioned you can get books on, like Boundary Control and Legal Principles, the Gurdon Wallace book, I mentioned him earlier in the tape; with his writing of legal descriptions. They have many different terms in there and they define them, and they show what the courts are doing with them and what these words mean.

Terminology

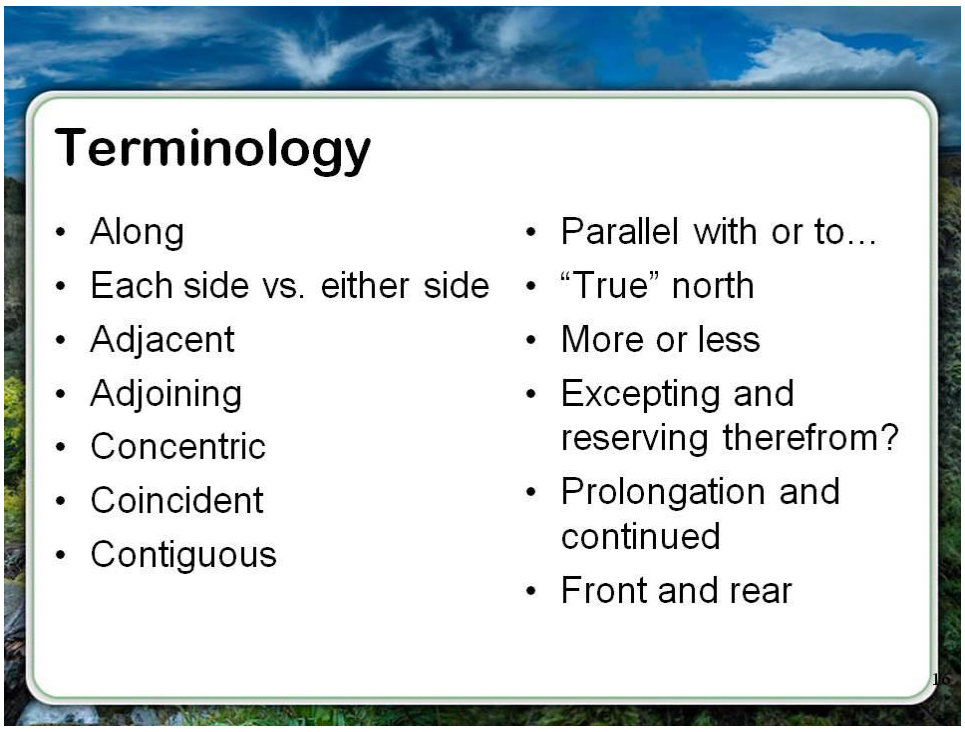
On this next slide I have prepared a few for you and you may remember these from school or whenever you went through it, but just looking at this list you just see that there are a number of these and some of these I think are just so crazy.

Like each side versus either side when you are doing strip description. You know the courts preferring each side. True north, when you use the word true there is on other indication what that means it's astronomic is what the courts say so you need to be very careful when you use words like true.

Understanding that accepting and reserving they are from are two opposite actions yet they use them incorrectly in words and you see that in thousands and thousands of old deeds.

Remembering that the courts have said that adjacent does not mean you are touching, if you want to say that your piece of land is touching another piece of land then it has to be adjoining or coincident or contiguous but not adjacent.

Concentric means in the same plane in the same, they have the same radius point, they are curves.



You know think about some of these, and in fact a great one is that last one there. 100 years ago when this legal description was written it said at the front of the lot, it used those words, and yet sometime during the last 100 years the city put a new street in or highway and the lot now opens up on that one, so now what was the rear is the front. Its use of those terms is trapped in time. You and I as good sleuths, we should try to figure out what they meant by words, that just being an example, of front and rear. But there are all kinds of things, you know somebody says the west bank of a river, but the river is no longer running north and south, its running east and west, which one was the west bank?

So you need to think about things when you write descriptions what you mean, but the problem is that most of the time you and I are trying to interpret descriptions and of course the courts say very consistently, and this is good, because think about it – this doesn't make sense. The courts say look, whatever the condition was at the time it was written, that is what counts. Now that makes if very sometimes difficult for us, to figure that out. Does not make sense that you know whatever the situation was at the time that is what their intent was obviously tied to that. They were not thinking oh maybe someday the river will move and change direction or something, or 90 degrees here. No, they were not thinking about that.

Here is a great example of this. In fact, I will give you this as an example that I have seen before in the private sector. This is a federal example from the Forest Service. We had a place where a road went through and they created a wilderness boundary and the description from Congress and the maps and the description we wrote said the, the intent of this wilderness boundary which is

where it is still federal land on both sides, but it is totally different management on one side and the other.

You can get a ticket for driving an ATV inside the wilderness but not 5 feet outside of it. It is an important boundary and the deed said it was 500 feet off that the road. So we use the centerline of the road, because the courts have told us, if you do not see a marking on a road you go to the center. This is another one of those principles that we should know and understand. And so we measure 500 feet from there. That is where the wilderness boundary is.

Forest Service goes out and decides to reroute the road, because it's in a place where it keeps getting flooded, they thought they might move that a few hundred feet downstream; we can build a better road, it will be safer. Hey, that is great, so they move the road. Well let us understand the wilderness boundary does not move with that road. That does not move that because the conditions at the time the words were written.

The way I find out about all this because of course I am not out looking at all these things as a land surveyor working for a government industry you know I got plenty of other things to do. The way I find out is that we have some wilderness person out there who calls the law enforcement to come out there and ticket someone for camping where he has always camped and has been camping for 20 years, and is ticketed for being inside the wilderness. It turns out it was where we had moved the road, and people not qualified to interpret descriptions were writing tickets. These things happen all the time in the federal government folks and in state government and similar things occur when you are writing and interpreting legal descriptions between private lands. It is a matter of where is whatever it is that was called for, where was it at that time. That is part of that history and sleuthing and the reason I mention these is that the words are the exact same way.

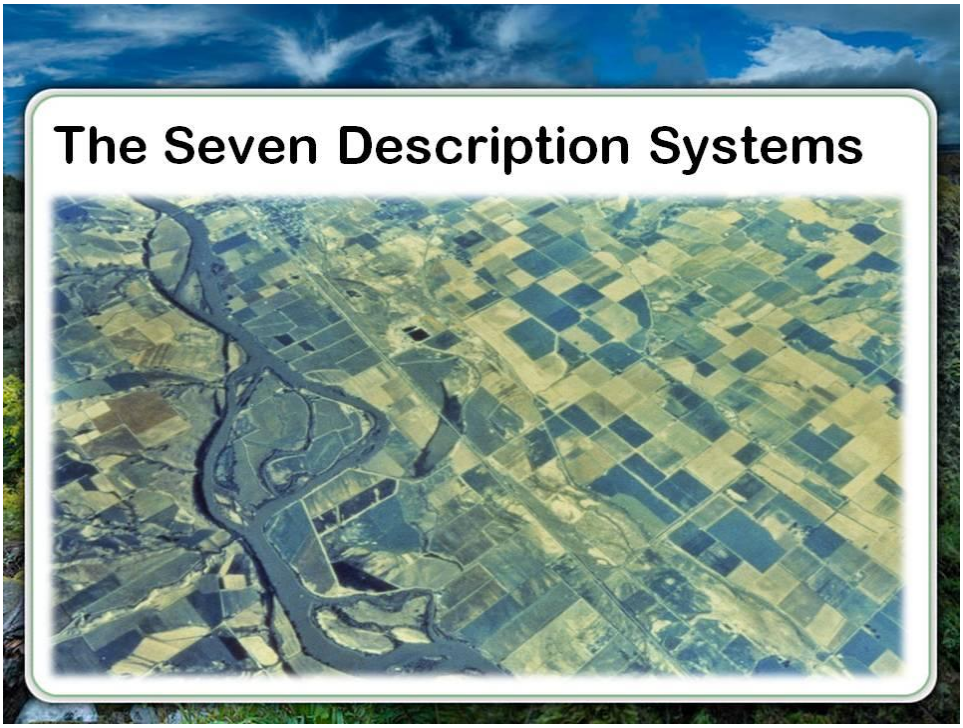
What did those words mean back then? You would be surprised, and I am still amazed and I guess I should not be because all the problem deeds are already recorded. I am just amazed at some of the things that I have read and I cannot tell whether they meant to accept this land or not? What are they saying? What direction do they really want to go? They did not make it very clear. We have to wonder about those things. The seniority of calls lets understand it is a very valuable tool. Keep it in the toolbox until we need it and understand when it is that we need it and how we use it.

Now a lot of that is historical stuff that I have given you and then I covered the second item in our course objectives and that was looking at the legal issues and especially junior/senior rights, terminology, and some of the basic principles that we work on. I am just talking about some of those to refresh our memory. Because every one of these non-rectangular entities that we are going to deal with out there on the public domain whether they are Spanish land grants or French grants, homestead entry surveys donation end claims US surveys, town site surveys, wilderness boundaries. All of these, all that stuff, all of these things are essentially metes and bounds surveys, and they all fall into these same, exact same principles and same issues.

General Metes and Bounds Issues, Part 2

Description Systems

I want now to discuss the different description systems that are used that are used here in the United States. There are a total of seven. I listed those earlier in fact if you look at the picture there you can see you can see the public lands, you can perhaps make out some metes and bounds.



We have riparian issues there with the river; we have got a little bit of everything there. I want to talk about bounds first.

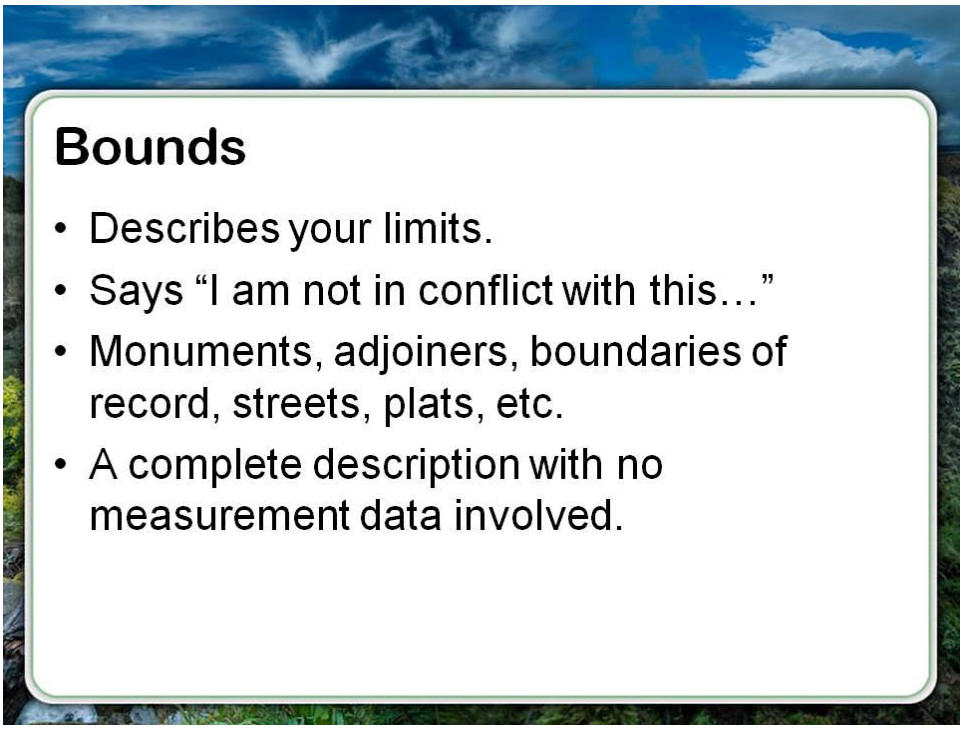
Bounds

Let us remember that a bound is something that describes your limits. In fact, when you use a bound in a description, you are saying I am not in conflict with this.

Whatever it is, be it a monument, a wall, an adjoiner, a fence, a tree; your saying I am not in conflict with it. I am one with it and the adjoiner; that what you are saying. So these are some of the things that it could be, it could be a boundary of record, something that already exists in the record, something that hasn't been built yet like a street even. Maps, plats, anything that already exists in the record, any kind of monument and kind of adjoiner, all of those things are bounds.

It is a completely separate description system too by the way to use bounds. It is a completely description system there are no measurements at all. A real common one is this, bounded by the north by Smith, the east by Jones, the south by Green, and the west by Brown.

We will have to go look up who they are and find all that but you discover that bounds system really does work. It has worked very well, much of the east coast started out that way, without the metes measurements added.



In fact, I have done a tremendous amount of work inside the Spanish Land Grant especially northern Mexico. You know whole grants have been conveyed away for 2 or 3 hundred years. Within them, you know the individual parcels within them as bounds only descriptions.

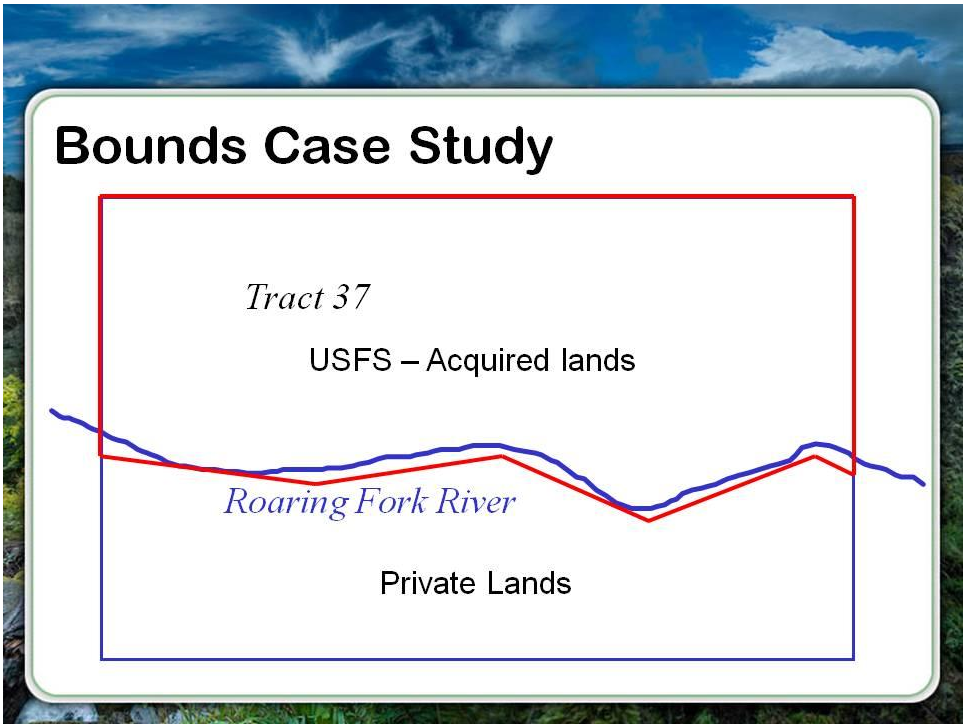
We have to deal with those things, and it is a valid description system, some people panic over it because it does not have measurements; I understand. Measurements have become more important because we are in a more litigious society, we value land by area or by frontage. So measurements have become more important.

We have the capability of measuring more closely. But let's understand if you have a description system that only had bounds, it's still a valid description, and you can't declare it invalid because roads doesn't close, what do you mean it doesn't close, it can't close mathematically, there is no math. Its just law when its bounds.

Now I want to show you a recent example from mid 90's and it is a survey I did for the Forest Service. This tract 37 is a metes and bounds parcel within the public lands system. You heard a little bit from Ron already talking about, or he will.

I forgot which order he was doing those, about independent research tracts; and that is what this was. So tract 37 already existed and it included both sides of this river.

This is the Roaring Fork River; this is just downstream from Aspen Colorado. Just west of Aspen, there is very valuable land there. Now what happened, was one person owned all of tract 37; and if I remember right, I am trying to remember his name, it was, I think he was a Lopes spelled with an "S." Lopes, he owned all of that land.



He owned it all before Aspen became a big ski area, and he was farming it. The Rowing Fork River goes through the middle of it, and the Rowing Fork is just gold medal trout fishing, just a beautiful river. Clear rushing water just what you think of when you think of a rushing mountain stream.

Back in the 60's, 1960's he, Mr. Lopes died and in his will conveyed the land he owned to his two sons. I think that was in the 40's when he died but anyway, here is what the legal description said, in his will, which then was converted into deeds. That is where these legal descriptions came from. And to the one son it said all of tract 37 lying north of the Roaring Fork river, and the other son got all that portion of the land lying south of the river.

Now if you think about it there is no math in there all you have is bounds. The bounds are an existing boundary, tract 37, and the river. This is the first time the river, inside tract 37, has been made a boundary. It was done so with bounds, no metes, and that is how those two parcels are described. The son to the north decided he did not want to farm much longer, so this happened in the 60's. I got my story all turned around. In the 60's the son to the north sold that and the U.S. Forest Service bought it. They bought it because they wanted to build a tree nursery. They spent millions and built a tree nursery with complete facilities, fields and irrigation.

Now when they bought the land they looked at it and they had some realty person looking at it. Their seller, his land was that entire portion lying directly above the north of the river. For some reason they decided that was not a good enough description; and frankly, it is a great description. However, it was not good enough, so they converted it to a metes and bounds, they did not do a survey, and they converted it to a metes and bounds. They got a USGS quad sheet out and they scaled on it bearings and distances. The actual deed that the Forest Service got was not worded as all that portion of tract 37 lying north of the river.

It said the following described parcel; and what they did was, as you can see on the slide, they created a metes and bounds parcel, the red being this description. They did not call for the river at all, they scaled along the river, they did not get it quite right and of course, the bearings are all screwed up. Because you cannot get a compass out and try to scale bearings, and it was not that great. Anyway, here is what happened.

The federal government has a deed to the parcel to the north, its acquired land. However, it is calling for these bearings and distances along here which are not in conformance with the river and are not in our, in the, the Lopes son to the north, are not in what he had to give to us. He could not sell us anything south of the river, because everything he owned was by his own deed, north of the river. That is how the government rewrote his legal. Think about this, so here is the government in acquired lands changing description systems, which we talked about in the previous lecture, changing the intent, because they left out the most important thing and that was the river.

Now in fact this river has moved very little, in fact this is not even an issue here. We'll just say it was in a well defined canyon here, and it was for the most part could wonder maybe 50 feet or so, but we are talking about two or three hundred feet here. Now this gets worse because in the 80's a land surveyor was hired by the Forest Service to survey that land. Rather than look at the chain of title and the description history, which we talked about, he goes out and he surveys this land with the deed the Forest Service has. So of course, he is setting monuments complete with those yellow signs that you see the Forest Service use. You know it says property boundary. He puts those all along here maybe 200 feet some places south of the river.

Now you can just imagine the impact this had on the owner to the south. By now, the son to the south has sold to a very wealthy woman from Kansas if I remember correctly. She was a big rancher and she had ranches all over the west. She bought that land. So she is out there one day and notices that these monuments are here and they say forest boundary, and she knows her deed says to the river. She is concerned about it, and does not do anything about it for a few years, and meanwhile the Forest Service goes and builds a fence down there so now we have fenced off access to the river there.

That is what triggered her. We built a fence to keep the evil public from fishing out of their own river. For environmental reasons or whatever, did not want them trespassing on the tree farm. That is what got her. She decided she was going to hire a surveyor, and she hired one whose office happened to be right across the street from where my office was. I was on the White River National Forest at that time.

He does his research, goes out, does some surveying, comes in, and says I think there is a problem out there. We get to looking at it, I pull some records, and sure enough, I realized what has happened. We, the government had goofed up the legal description when we had acquired the land. Then we goofed it up by sending out someone to survey it that did not look at the chain of title. Rather he chose to survey the most recent deed. So we have monuments, fences and signs down on this woman's land. I did my homework and I realized there are no junior/senior rights here.

When old man Lopes died he gave, you know, that is considered a simultaneous conveyance when you in a will or in probate. So the sons got their land, there is no conflict between their deeds, it was the river; and that is a valid legal description. This being in Colorado, it is the centerline of the river, or creek is what counts. However, we had gone and done something different, and we are trying to enforce it. Well I will not bore you with too much more of the story but the bottom line was is the attorneys for the federal government, we are not giving away federal land. I said that is not your land to begin with and that was the biggest battle was fighting our own attorneys. Then one of the Forest Service attorneys says "well we got to sue someone" typical attorneys you know.

I said nope, we screwed up when we acquired it. It was our own lands work that did that, our own realty people that did that and we just further complicated it by getting a surveyor who did exactly what the lands people said and not what the legal descriptions and the law and the chain of title would have said. They were upset, and wrung their hands for weeks over this thing. All this woman wanted was the fence gone she did not even ask for the monuments to be pulled but I recommended they be pulled because they are irrelevant.

She just wanted the fence gone and here is what else she had decided. Land values have just skyrocketed up here. We are talking two or three million an acre. She decided she was going to develop that and sell it off in small little ranches to people. With riverfront and of course the government said you do not have any riverfront. She said look I just need my title cleared, see we had clouded her title. We had a description that made it appear we owned land even though on the analysis, we do not but now we have a survey that physically said we do have land over there on her side of the river.

That is what we call a cloud on the title, it has created some confusion, mystery, or doubt, and so she wanted that cleared. Of course, that is not a subject in this course; but the federal government can clear title for people where we have clouded their title under the FLPMA. What does that stand for, Federal Land Policy Management Act of 1976. FLPMA has an area in there called the disclaimer of interest, and so it is like a quick claim deed.

So eventually, the Forests Service issued a quick claim deed. I might just mention though that the attorneys, what description are we going to use on the FLPMA disclaimer. They wanted me to go out and survey down the center of the river there, and I said no that is ridiculous. The river moves that river up there all year round and is always about 32 and half degrees temperature. I am not going out to the center of the river and figure out with rate, streams, and little islands. I said I am not messing with that. They wanted this precise metes and bounds description; I said why that is

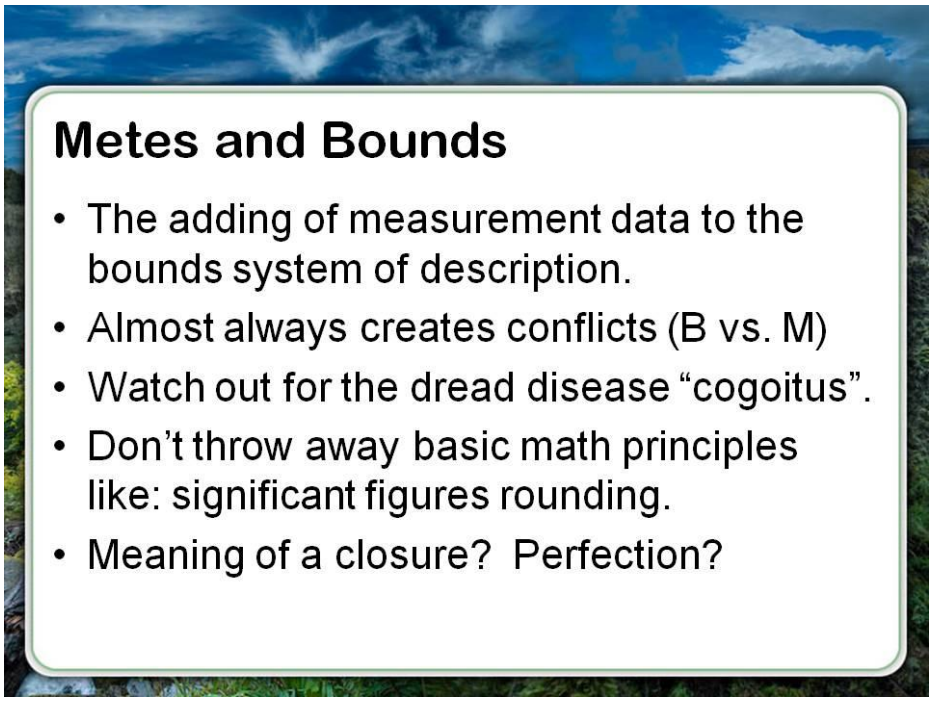
not going to solve it. Anyway I finally convinced them after several weeks to use a description that just quick claims that portion of tract 37 lying south of the river.

Now we do not have any interest south of the river, which we never had to begin with. Now we have cleaned up the cloud. Now that's an example of bounds and it's a very recent thing it's something that we did and we went and messed with it in acquisition then we didn't pay attention to it when we surveyed it so later in life what happens? We have affected a private adjoiner with probably, if we had not tried to resolve this she would have sued us and won and it would have been in the tune of several million dollars of damages.

So hey, let's pay attention to the words we use and the things that we do in the processing of this, or maybe we didn't cause a problem and your just a surveyor there today, and folks this kind of stuff occurs in Indian country, this occurs all over in private land, and occurs on federally acquired land. It is one of the dangers with acquired land, and there is a lot to learn about acquired land and federal interest.

Metes and Bounds

Now when you take basic bounds, which is what we were just talking about and add measurements into it that is what we call metes and bounds.

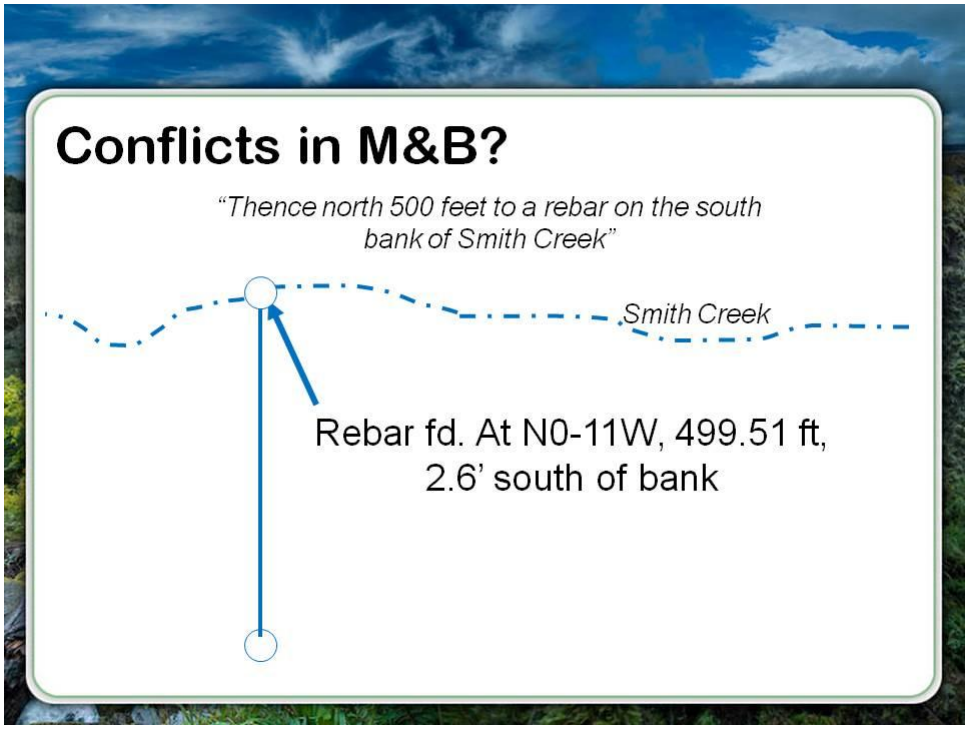


Metes are an old English term for measurements, and that can be any kind of measurement, bearing or distance. Even an area can be counted as a mete. Metes and bounds, just means we are adding measurement data to the bounds system.

It will usually create a conflict between the bounds and the metes; because nothing is measured perfect, people may make bad assumptions or whatever and you need to be careful of the dread disease of cogoitus. That is where we go in and we with the coordinate geometry make everything seem like it fits perfectly, but not realizing that bounds do not always have measurements to them.

The measurements if they are may likely give way to the position of the bounds. Playing with coordinate geometry and not understanding what you are doing is dangerous. We want to make sure when you are reading metes and bounds descriptions or for that matter writing new ones, that you do not throw away basic math tools like rounding and significant figures. You know I will give you an example. Say that we have a deed that calls for a certain distance to a monument, how do we get these conflicts resolved? I mentioned in that previous slide you get the bounds vs. metes and there is usually a conflict.

Let us take this slide as an example the description that you have says thence north 500 feet to a rebar on the south bank of Smith Creek.



I have drawn it for you. It is that bearing and distance to the rebar, a rebar on the south bank of smith creek. I'm not going to talk about riparian rights here but cause they may or may not be, this doesn't give riparian rights what we see so far.

You've got to see what elements do we have we have north, that's a metes call we have 500 feet that's a metes call, we have a rebar that's a bounds call, on the south bank of Smith Creek, that's a bounds call. So we have two metes and two bounds.

You and I go out on the ground and we find both ends of this the rebar is at north 0 degrees 11 minutes west and its only 499.51 feet and its 2.6 feet south of the bank. This is the reality of it and so what seemed clear and everybody was happy with when recorded the deed 50 years ago. In fact, you and I go out and find that there is a conflict, nothing measures perfectly, nothing ever will and the reality out there is that the bank is a couple feet away whatever.

I am not here to discuss all of the ins and outs of evidence acceptance and that sort of thing. We covered that very complex subject a little bit in course number three in the original CFedS course. There are, even with in BLM, strong disagreements as to when and when not to accept evidence. Especially local evidence, local means anything other than the BLM or GLO.

I just want you to think about that in the light of my rounding thing. Let us say, that deed I just quoted north 500 feet to a rebar, let us say that all of the calls and the legal description are to the nearest foot. Not just this 500 and the next goes 712 feet there is no hundredths. Let us say, that all of the bearings are to the nearest degree this one said north but nothing is more than one-degree accuracy. What does that mean when we include rounding and significance figures?

Let us understand, if they only give you the bearing to the nearest degree than anything. This says north, assuming that you're on the same bearing of basis as they were which is a whole other subject, but assuming you are anything between north 30 minutes west and north 30 minutes east, is acceptable because it is what they said, this is there we play COGO games. We put the coordinates on in the record at exactly north.

Exactly 500 feet then we start inversing over to things that we have missed. When in fact we need to look at the time and the place, and the intent of the parties and if the intent of the parties is the nearest degree and the nearest foot, don't be playing games with that, don't force them out of that because you have violated their intent. You have forced your opinion or agenda on the intent of those parties on their written contract. Same thing with the 500 feet, if every distance is to the nearest foot then automatically from 499.50 to 500.50 is perfect anywhere within that, half foot each way that is perfect.

In other words, this rebar does not measure at exactly at the same place bearing or distance but when I look at the deed as whole and I see what kind of rounding and significant figures I am getting. I consider what rounding effect those significant figures have; I realize that the bearing and the distance are perfect. They are perfect. The 2.6 feet south of the bank, well I will just mention this, just because somebody mentions a natural feature does not mean it is the call of the boundary.

When I see these kinds of things, I realize what they meant was, I have a rebar here and by the way, it is at the south bank of the creek. Not making the creek the boundary, but rather its, its travel log information. It has to aid me in finding this in the future. Now if the next call in the legal said thence along the south bank of the Smith Creek then I may look at this differently, I may hold the rebar for line and not for distance. That is just an example of looking at the whole deed but seeing what it said and not forgetting these basic math principles. Knowing how they tie in with the legal principles and not holding these peoples intents to precisions whether they were capable of them or not.

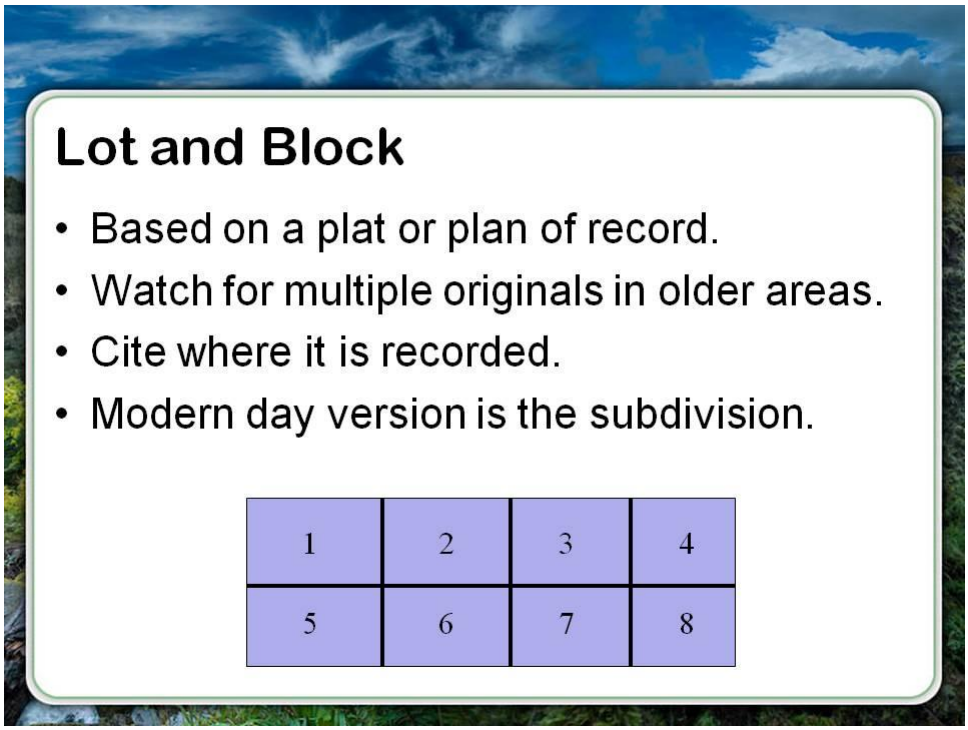
There are even times, and this is even true today, we call in our legal that you and I write today and we call in principles that are impossible to meet. Here in Arizona I am required by state rules to report every bearing to the second and every distance to the hundredth, and it is extremely difficult to actually produce have work that has that precision. Most surveyors are not doing it; you could not afford to do it. So it makes us feel better but you see what I'm saying, even if it said

500.01 feet well that doesn't mean I'm going to go down to a thousandth of a foot or five thousandths of a foot, to decide whether I can accept a point or not.

In reality, I know even though that is what they reported it in that was not possible. The parties, their intent is not this super precise geodetically balanced everything is wonderful measurement. Their intent was to convey some land. We have to quit playing those COGO games and other similar things with that. So metes and bounds is a, is a system that automatically creates conflicts.

Lot and Block

The next one I want to talk about is lot and block, and I gave you some ideas earlier in the course about where lot and block might be used.



Let us understand that it is based on some kind of plan, record, or map that gives block and lot numbers.

When you are in old communities sometimes there is more than one original. They are different in block numbers or lot numbers or distances.

Cite where it is and recorded it so we can see which one you used, and that is a problem with some older descriptions, you know did he use the one near city hall or the one at the county court house. Because they are both originals, in which titles were transferred but they do not agree. In certain areas, these things happen. In the modern day version that we have is the residential subdivision, which most of you have a house in the residential subdivision, it is the original version of lot and block. It is a great system because it is just like the public land system in the sense that you create a map, go out, mark it first, and then sell.

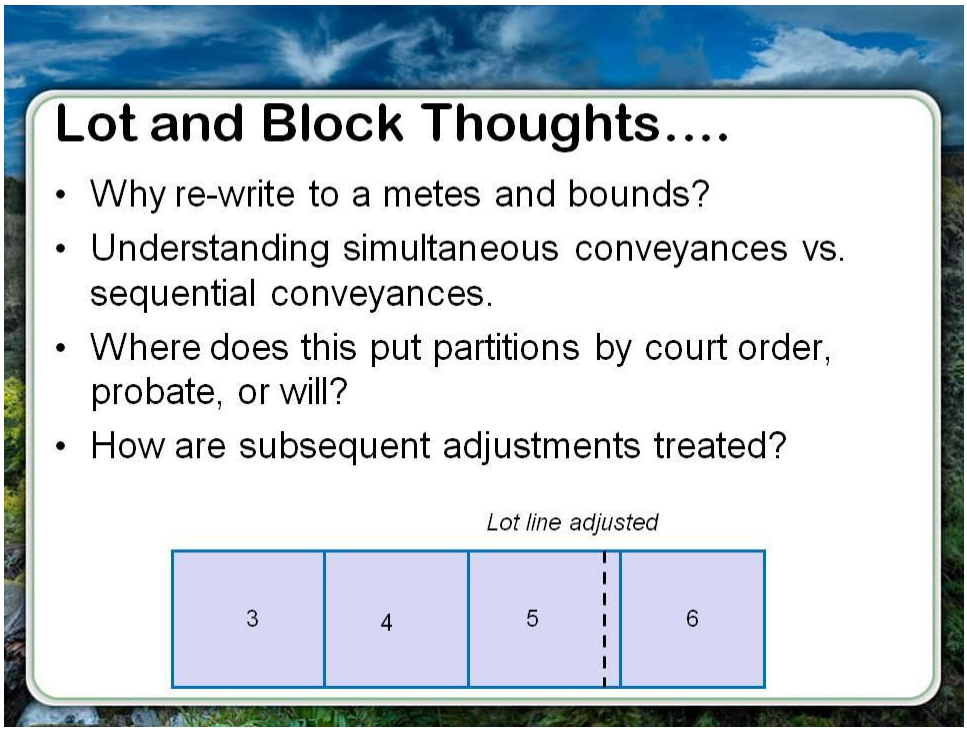
You see is a simultaneous creation, and so you don't have the conflicts you don't have junior/senior rights usually in the public lands and you don't usually have junior/senior rights in lot and block, you don't have that in subdivisions, they have avoided it because if its simultaneous nature as compared to its sequential nature. See if you have some deeds that are in sequential

nature you have junior/senior rights it is because of time. These simulations created so I have a few thoughts for you about lot and block just to review.

First, I hate seeing these rewritten to metes and bounds.

You know if it was conveyed as Lot 4 of Block 10 or whatever, hey that is a good enough description for me so use it.

Lot 4, this is what its description should be. If you convert it to metes and bounds, you risk changing the intent of the parties so be careful with that. I suggest you not do that.



I have already mentioned the second one understanding simultaneous and sequential conveyances. I even mentioned this one earlier where does this put partitions by court order, probate or will. Folks when the courts order a splitting of land in a divorce or probate because of death these kinds of partitions that the courts do are all considered simultaneous they are not sequential. I have had people say that, no the older son (or older child) gets senior rights. No, they do not; where did we dream that up.

So keep that straight with lot, block, probate, and partitions of lots and things like that they are still simultaneous conveyances. One of the things that we do want to talk about here, lot and block, are subsequent adjustments. This is an interesting thing, let us say down there between lots 5 and 6 they decide and it is allowed by the zoning, that they are going to adjust that lot line.

So lot 5 and lot 6, they decide they are going to adjust their lot line and this could be because of a trespass or something. Let us just assume that it was legal planning and zoning and the jurisdiction was involved. Sometimes these are not even allowed by law. I just wanted you to think about it, because in the past it was allowed even in jurisdictions that do not now. Lot 5 and 6 they want to move their lot line. That is where it goes; the original line between 5 and 6 was here the new line in over here.

Now let us just realize that you can never actually move the original line legally speaking between lots 5 and 6. That was, we may call it a lot line adjustment or a boundary line adjustment, depending on your jurisdiction. Let us realize that the original jurisdiction still counts.

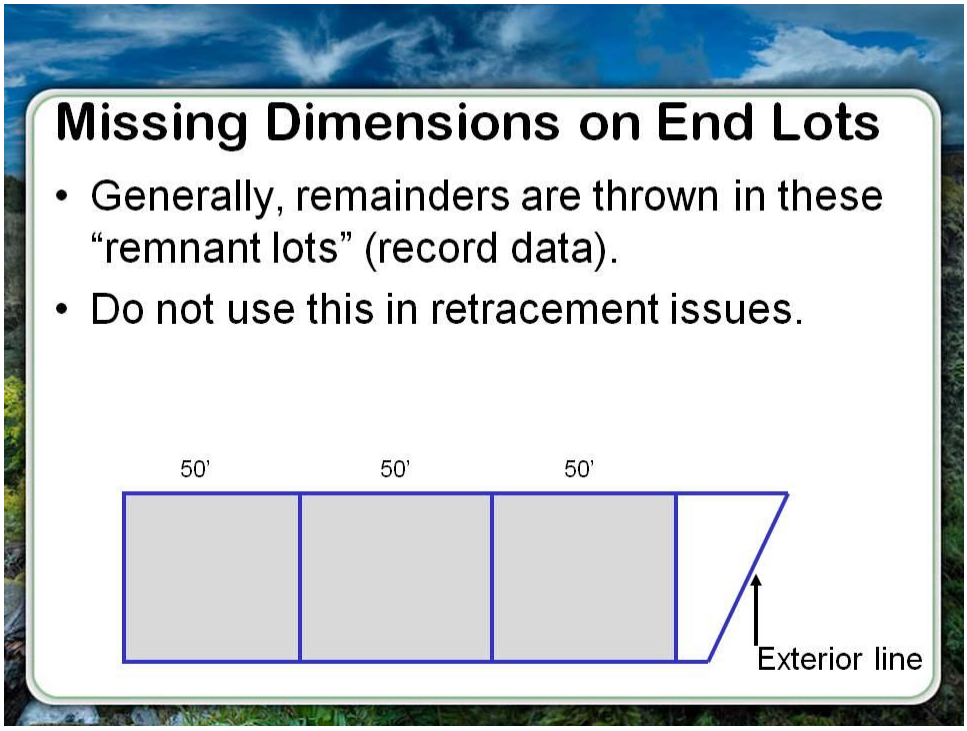
They have just moved the property line off that boundary to a different place. Here is the reason that is important, well a couple of reasons really.

Number one if there are easements running down that lot line**,** unless you got all the utilities companies to agree to move 10 feet or whatever that was. Those easements are still on the original lot line. Even more important, and here is where I have seen some surveyors make some silly mistakes. Just not paying attention to what is going on. Let us go back to the screen and I will show you. They say that they are surveying Lot 4 down here. This corner of Lot 4 is lost but they found this corner here, and I will darken it, this is not an AutoCAD class.

They come down here and they find the monument here at and they need to proportion the northeast corner of Lot 4 but they do not find the monument that is at the lot corner of 5 and 6. What they find is the rebar on the adjusted line and they use that to proportion down to here to come up with a position that is not right folks, unless you adjust for it in your math. In the proportion that you use, so let us just make sure that we are thinking when we go out into these lots and blocks.

Because these things happen and you know what those adjustments could be just a couple of feet that somebody moved because a building was in the setback limit. In addition, the neighbor agreed to sell him two feet. They could be big lots. You come up with different records of measures. You are not even recognizing that you need to look at the record and see what has occurred on those other lots, before you just go down and find a rebar. The people do not understand the concept that I just taught to you; they think that the line between 5 and 6 is moved, but it has not.

The line between 5 and 6 is a fixed boundary. What they did to the property line was coincident, and now they have moved the property line to a different place. This is an important principle; you found this in many of things not just lot and block.



In fact, it is even there in the public lands, so keep that in mind that those are just some generic thoughts about lot and block. There are

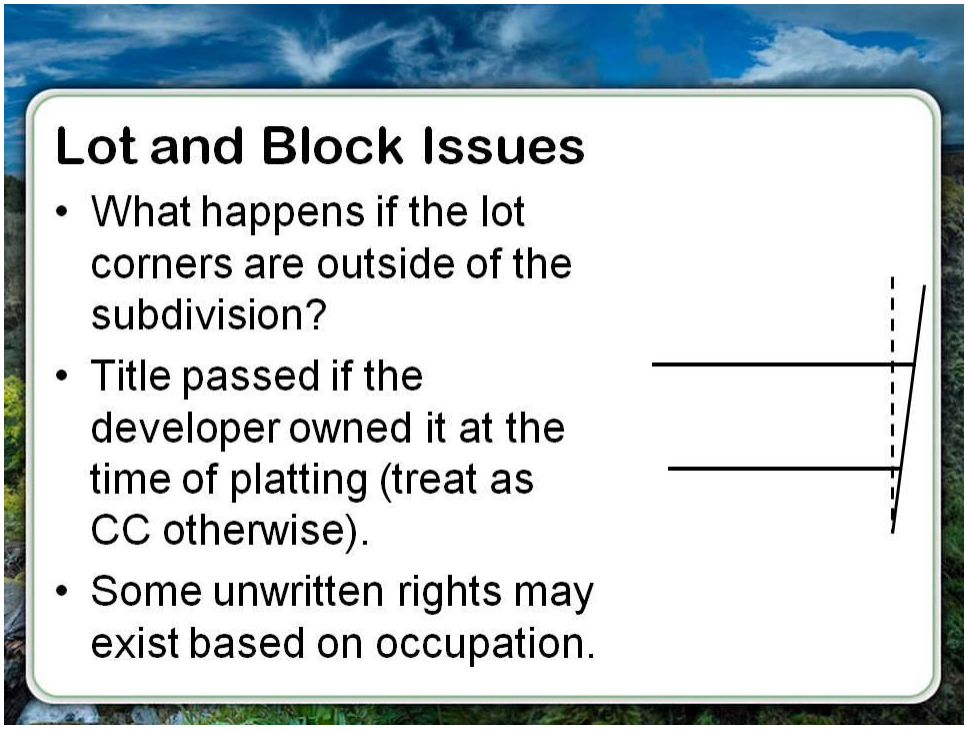
some other issues with lot and block. Look at this for a minute.

Missing dimensions, sometimes some of the old lot and block plans you do not get dimensions on the end, and what they are telling you is hey these lots are 50 feet that this is whatever it is. They did not know or they did not compute it or they did not care. We have a different way that we deal with that. You can read about it in some of the books, but there are some of the dangers in lot and block. In this non-rectangular survey course, we are going to be talking a little but about lot and block issues.

Mike Harmening will be talking to you a little about some of the stuff from the Townsite Act, and some of the stuff he has done in Alaska, retracing what are essentially subdivision lines. Some of it in Indian country and trying to figure out where the federal interest is in there. For us in the BLM, we do not deal with subdivision curves and spirals and stuff as often as you guys in the private sector do.

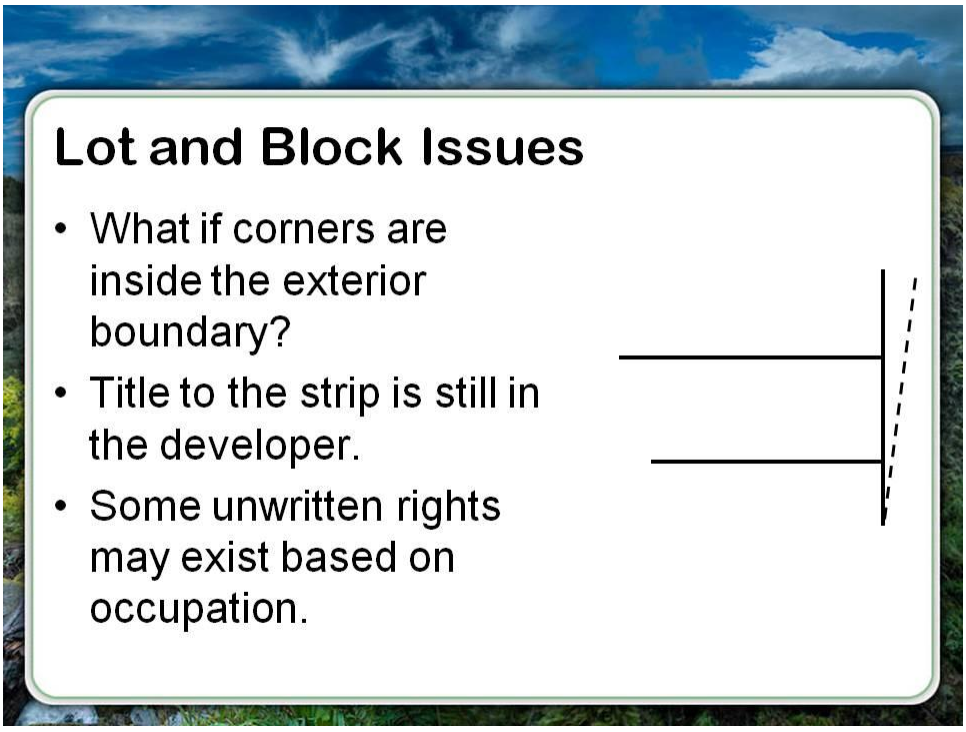
Understand that even for the BLM surveyor, depending on where they are working and what they are doing in the scope of their work, even in some cases subdivision is designed because we are laying out streets for a new townsite. Generally, the remainders of these things are thrown in to remnant lots that are our rule.

When you are retracing, you do not hold the 50 feet then throw everything in there. You still have to do some proportions. There is some good stuff in some of the books I mentioned earlier.



A couple things that I need to mention about lot and block. This happens a lot, you have an exterior boundary and they have taken a parcel and this is the exterior boundary out here, but they have subdivided outside of it. They have done lot and block or made a subdivision outside of that. This is asking the question, what happens if the lot corners are outside of the subdivision? Here is the GLO owns the land on the other side, or the same owner, it could have been the feds for that matter but if the same owner owned both sides, then you title pass to it. Because he marked it on

the ground as that. There may be some unwritten rights in there based on the occupation that is something to keep in mind.



Here is the opposite of that, what if the corners are inside the exterior boundary in other words, the way I have drawn this one, this is the exterior boundary, and they have monumented inside they have left a gap. That strip or gap whatever they left there is still owned by the developer or owner, but there may also be some unwritten rights if those people have extended their occupation out to that.

Lot and block is a relatively clean simple system. Until you either mess with it by adjusting lot lines as I mentioned or until you get to the exterior or find that, they did not do a very good job in the exterior. In fact, when I was in private sector when somebody calls and says I want a survey of Lot 4 Block 2 in such subdivision, I do not say well hold on a minute I want to look at the plat. I get the plat out and look at it, because it takes more time and I was going to charge more for one that was only exterior boundary in the subdivision, that one in the interior.

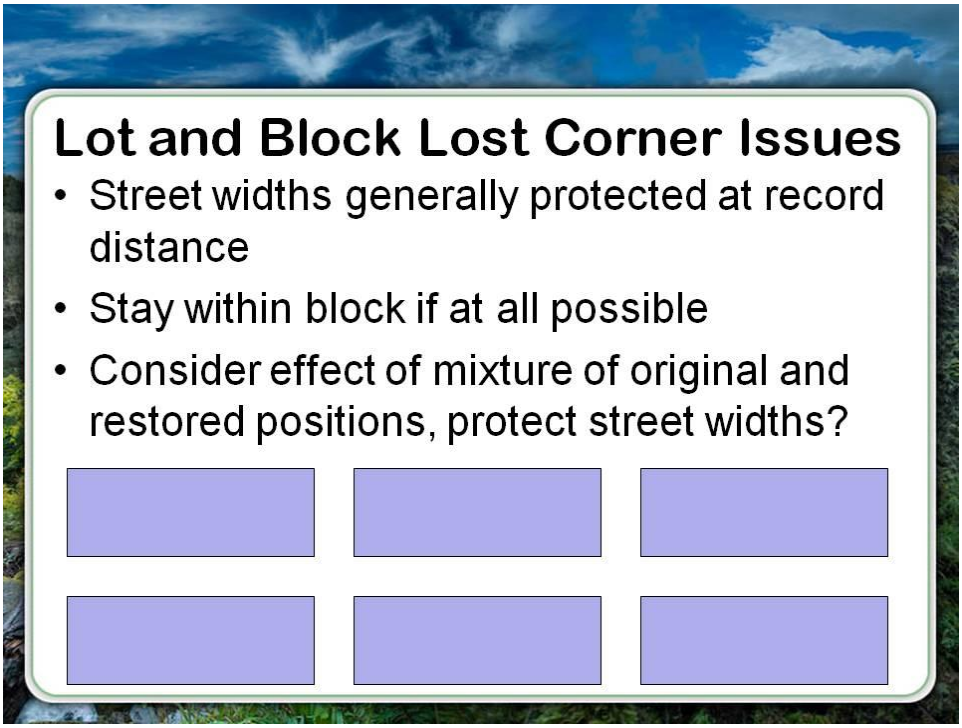
Opposed to the one on the interior because it is all simultaneous conveyance. I just need to go there and pay attention to the lot line adjustments. When you get to the exterior, people lose land or gain land or have title issues. I'm just reminding you here that's part of your research when you do this stuff. This is true for a survey, and this is true for doing the evidence standards and boundary work and forms that we have for CFedS.

So this is the kind of stuff that you look for, and for me I don't have to do a survey, sometimes I look at the subdivision plat and see that the parcel that I'm doing is against the exterior boundary I look at its exterior boundary data and just for example I noticed that everything is 1320. I don't even have to set foot out here I can put a note on that LDR or chain of surveys or whatever form

I'm doing, and I can say there is a potential problem here and this could be a major problem, minor problem or it may not exist.

There is a very good likelihood that there is a problem with all of the lots in the exterior of this subdivision. That's the purpose of those forms, to alert others to the risk that they are taking by acquiring that or not dealing with it or whatever. That's a service that our professional surveyor can render, and it was caused in the beginning because the surveyor that did the original survey, didn't do it right. At least the exterior boundary those are the some thoughts on lot and block.

There are other issues that we want to look at with lot and block, lost corners.



Generally we have some rules that protect streets widths at their record distances. That comes from some long-standing principles from the government. The street is for the public and they get their record width. That may not be true in some jurisdictions, so I am not going to say you have to do that but generally in federal situations that would be true.

Street widths are protected at their record distance so if your proportioning and you have to go from block to block, you keep that at its original distance and then proportion otherwise. It is best to not proportion between blocks if you can find corners in your block enough to piece together.

You need to consider and this is a major problem in private surveying today and therefore for us when we are dealing with acquired lands or townsite lands and that is that the effect, you know maybe some of the lot and block corners are original corners others are restored corners. How were they restored, did they protect the street widths when they did it what was that. Because I find that when you go out and do a survey such as this slide shows, here's what you got.

You are maybe surveying this lot because it has some federal interest in it. So your surveying that lot but the red triangles there are what you found, it the evidence you found. Sometimes that is a real mess, because for instance this one here is an original lot corner by the original surveyor. This is one some other surveyor set. How did he come up with that did he just go record distance or something.

Then maybe you're going to go try to use this corner down here for some kind of a, connect it to this to get an alignment and yet you realize that, in fact that corner was set on a straight line here and was not proportioned correctly and you see what I'm saying? You are just trying to get this little piece of land right here, and you got this mixed bag of original stuff and new stuff and you need to be careful what the new stuff has done.

Because I find that most of the time private surveyors and I caught myself in this many times too, will just go in and do some first of all quick and dirty job in there because it's so small and the people aren't willing to pay what it really costs to get a survey done.

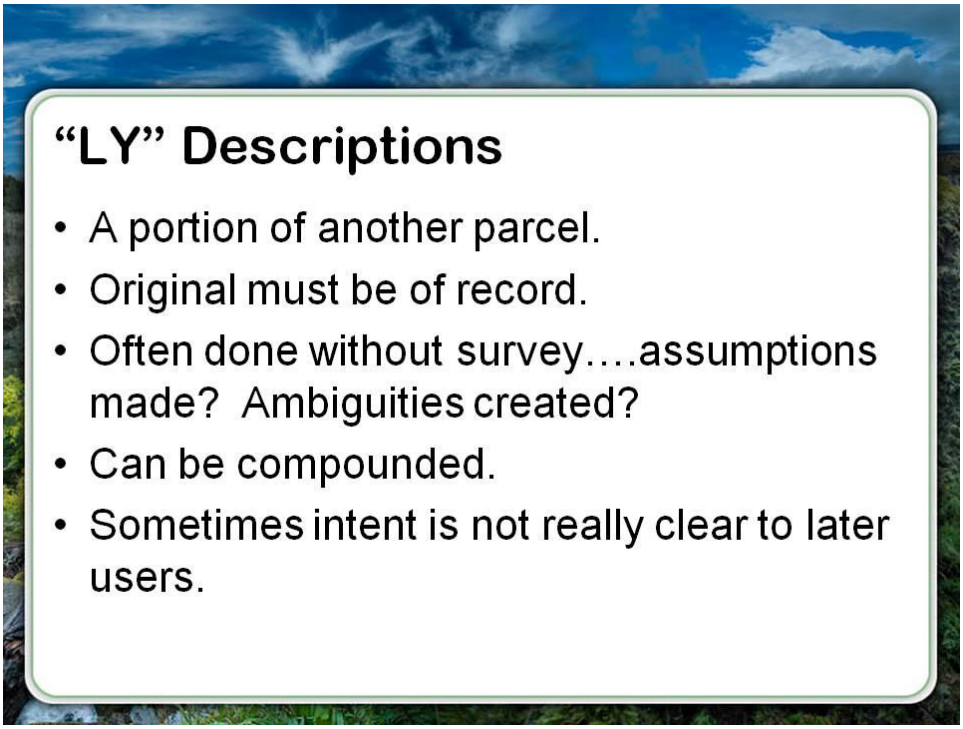
There is a tremendous danger and start proportioning on this end, something original, and that end not original and up this way you are splitting the curbs to find the center line of the street and down here your doing something else, you just got this mixed bag, it is a mess. I am just going to be honest with you especially in old subdivisions that are lot and block and some of the old Townsite Act stuff there is not a lot of evidence left or it is a mixed bag of evidence and you just need to be very cautious.

I mean deliberately slow because you want to make sure that you done just the first four things you trip over. Then on top of all that the occupational differ, but that, that is for your enjoyment when you do the actual survey, right? Anyway lot and block, just want to be careful. I get very frustrated, and I understand, that in our world and economics people cannot pay 5,000 bucks for a lot survey they are used to, unfortunately they are getting them for 100 or 200 dollars. You get what you pay for, and sometimes that is all you needed. However, when we are doing federal interest in particular there is no room for that.

You carefully analyze all the records, all the data and you look at what you got. Because your goal is to put these things back in their original position and that is tough when the other corners that have been using it have been put back with five different methodologies, or theories. So be careful that is all I can say in lot and block situations.

"LY" Descriptions

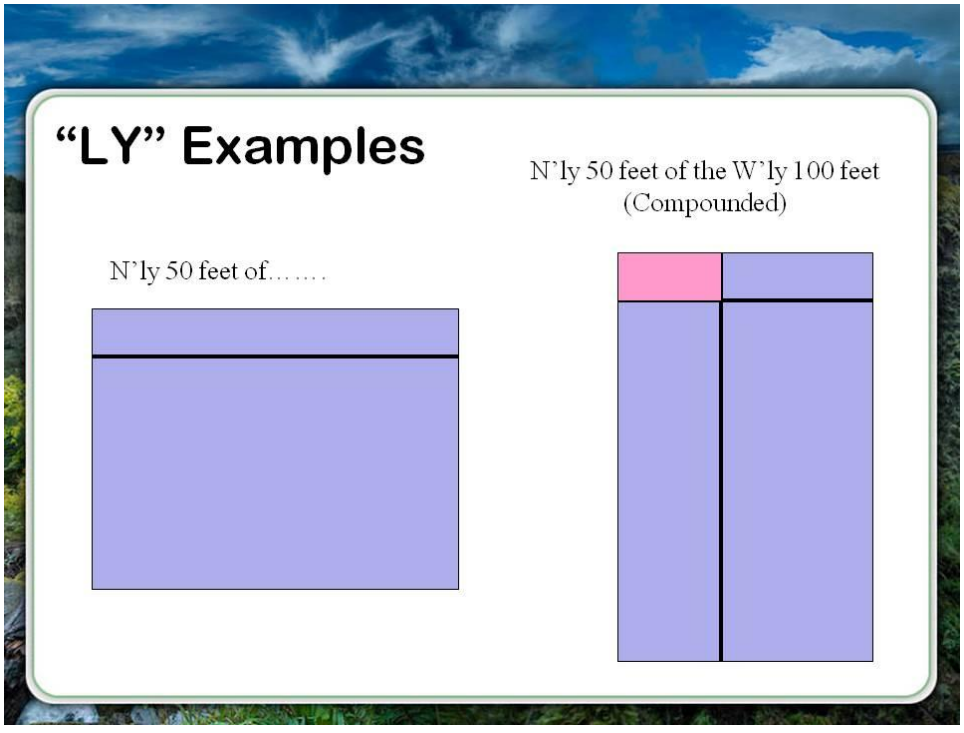
I am going to switch to LY descriptions that what Gurdon Wallace calls them and I kind of like that term.



This is where it is a portion of another parcel and the other parcel has to be something that is of record.

These are often done without a survey, they are done because they are cheap, they are easy and I am not saying they are improper.

You need to understand that sometimes people had to make assumptions and that is because of the ambiguities they made. The LY descriptions, we have millions of them out there. Are they clear as to intent? You can compound these, many things you can do with these.

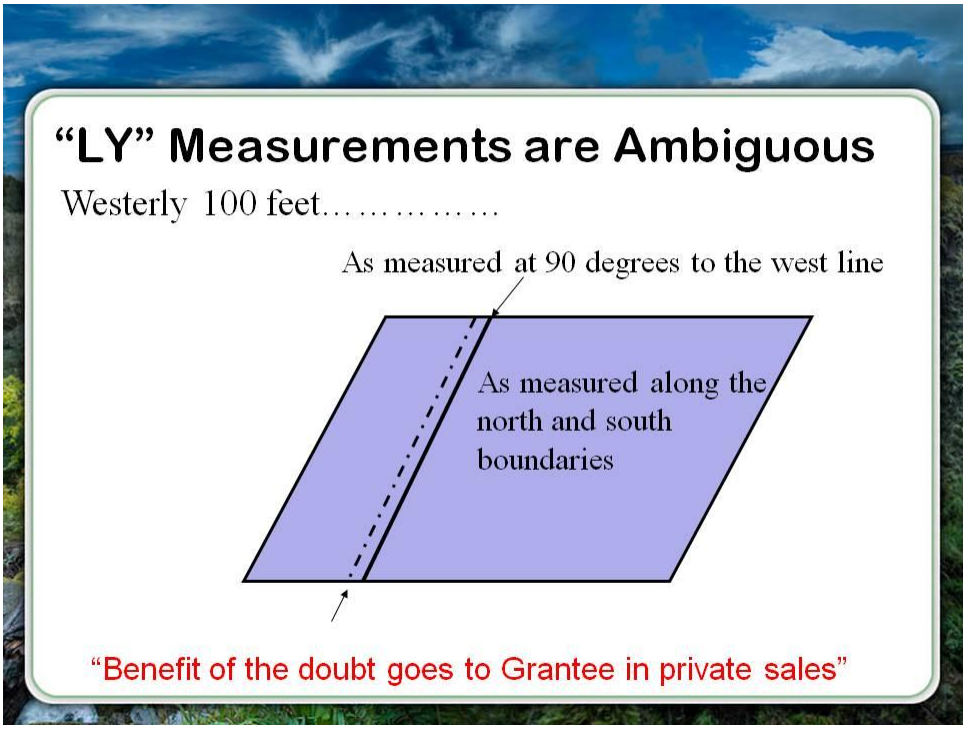


Here are a couple examples of LY descriptions.

We have our major parcel here on the left, the, whatever it is, maybe just a lot, and we sold the northerly 50 feet.

Here is an example the compounded we have this parcel on the right, we have the northerly 50 feet of the westerly 100 feet. Fine those work, they do convey title.

That is a compounded example. Now let us understand what the problems are with LY's.



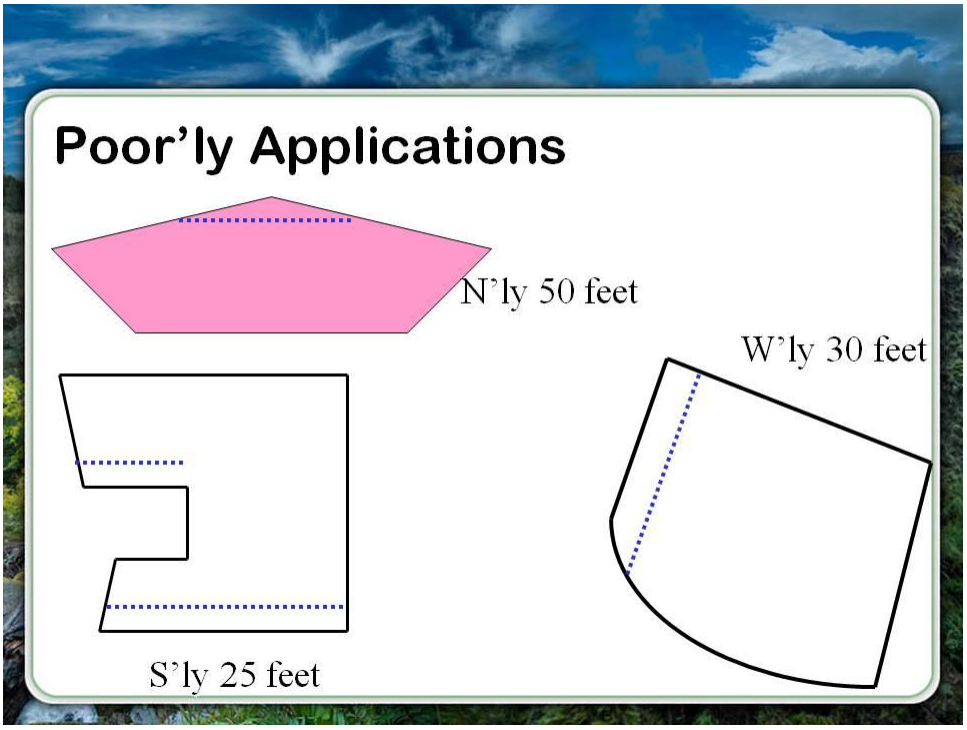
LY's can be ambiguous. If the parcel you are measuring from, in other words the original parcel is anything other than 90 degrees then you have more than one solution. Westerly 100 feet, how do we measure that of this trapezoid or parallelogram? How do we measure that, do we measure that 100 feet here along the north and south lines, or do you measure it at 90 degrees to this line 100 feet? Because those are at different places.

So LY descriptions are perfect when the parcel is a square or rectangle but as soon as you vary from that, you can do the geometry or trigonometry on it, but as soon as you get away from that you start creating two different possibilities. But if you have one of those possibilities in mind then the way to do that, back to the screen for a second, is, whether say as measured at 90 degrees to the west line or as measured along the north and south boundaries.

Those are the two different possibilities and if the deed actually uses those words, then its clear which one they meant. Most of the time, it only says westerly 100 feet of the other parcel. Notice at the bottom, this is a legal principle in surveying, is that the benefit of the doubt goes to the grantee at least between private owners, including private owners over to the federal government.

So what we have here that you can see is one of those will always be, once your away from 90 degrees, one of those will be more land the other. It can go one way or the other. The courts have told us, if they do not tell you which one, you give the benefit of the doubt to the grantee. The grantee gets more land, the bigger solution. That is one of the problems with the LY descriptions. We need to keep that in mind. Another problem I have seen LY descriptions used where they should not have been used, where they do not make much sense, look at these examples.

You have some parcel that really has if you will, two north lines. They say the northerly 50 feet, well did you mean to do it like this. 50 down there or 50 feet here. On the other hand, is that 50 feet here and/or did you 50 feet all the way across.



The intent is not clear what you are saying there. Southerly 25 feet look at that.

What the parties were arguing in court was everybody agreed that it is this 25 feet and they were saying it is also this, because you see you have a south boundary here too. They were trying to claim 25 feet easement up there as well. That was not the intent of the parties. Well, at least one party was saying it was the intent. It was a bad place to use LY descriptions. Then in just about any time, you have a curve involved.

Because obviously you are changing in relative direction as you move along the curve. That is what this last one here is the westerly 30 feet. You know what are you suppose do with that? With 30 feet here fine, but what do we do down here and was it our intent to carry on continue here cause now it's the southerly 30 feet or were we to, let me show you.

Were we suppose to taper this somehow where it starts at 30 feet at the arrow but then tapers, what are you suppose to do with it. Does it end here or did the 30 feet keep going. You see there is five or six different ways to interpret that and none of them is very good. That is my other point, I want to make with LY descriptions is that there are places where they are not appropriate.

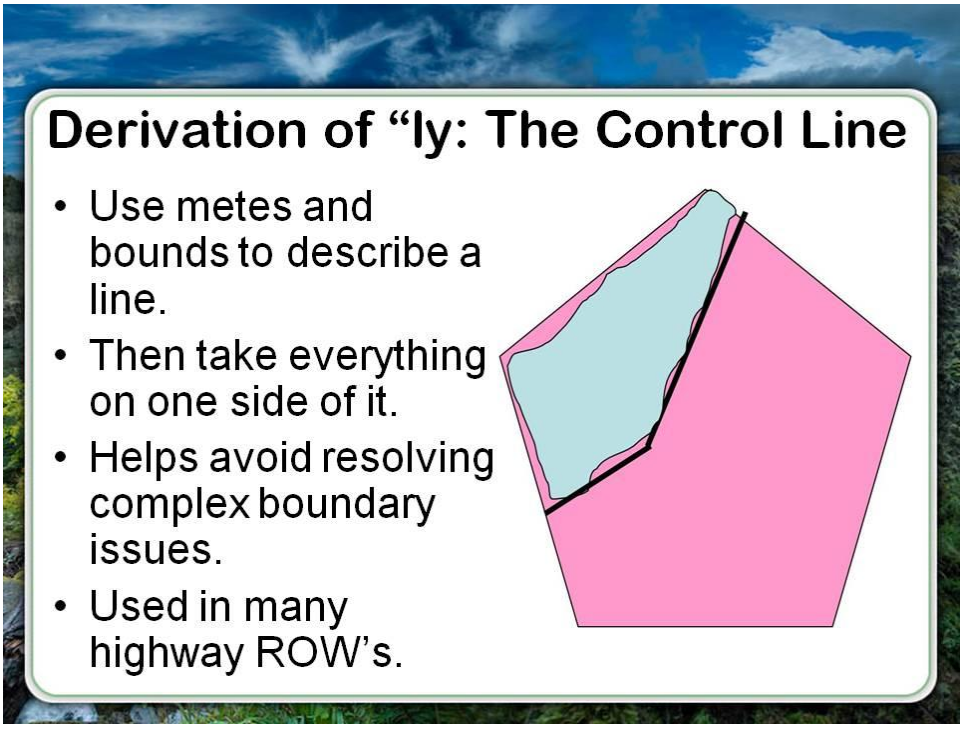
Now, if that is what is already in the record, you are going to have to deal with it. You are going to have to figure out what the intent of the parties was. Maybe look at the area that they gave, not the area that we hold. If one possibility is significantly different then, in fact let us go back to the slide and look at that. On this one, if the area they gave was the whole 50 feet.

You can look at other elements of the deed, try to figure out what the intent of the parties was, and be able to determine one way or the other. However if you are creating new descriptions then obviously you want to avoid these at all times. So again, in land description reviews and other things, you are looking for this kind of stuff. So you can go out and fix it, you are not hired to survey. You look at the evidence standards. What you are doing is looking at the record then

making recommendations whether they need a survey, or whether this is a good deal, or a low risk acquisition or whatever. Then if you get the chance to go survey then you really get a chance to figure it out what their intent was.

Now one more thing under LY's and that was there is a derivation in the LY's and that is what is commonly called the control line.

We have this big pink piece of land and they want to sell everything that I have somewhat not crosshatched but colored there with blue.

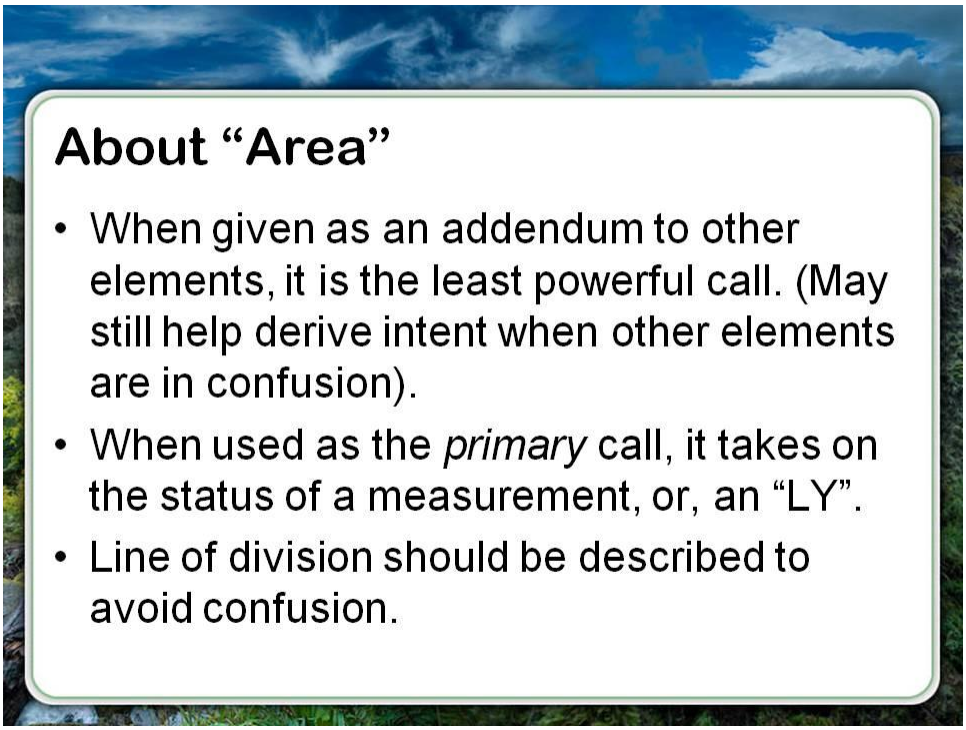


In other words, it is a control line and they want to sell everything that is north and south of that.

What they do is use a metes and bounds line to describe this control line. Then they take everything, sell, and convey everything on one side of it. The reason they do this is to avoid complex boundary issues. They do not have to figure out exactly how much land is in there, or there could be other parcels. They say we are taking everything northwest of this line.

Where you see this used folks is highway right-of-ways CalTrans does this a lot so do other highway departments because it avoids having to dig into all the boundary disputes and problems amongst these people you do not have to come up with every corner with every parcel that you're going to cross. You just say hey anything you own that is north and west of this line, we will monument this line, but anything you own north and west of that is what we are buying or taking. You do have that derivation of LY's everything north and west of this control line.

Now we have danced around the subject of area a little bit and I just want to mention here just to make sure we understand I find an area to be a useful tool in a number of ways.



It is very rare that you give someone an exact acreage. But it is a useful tool to help figure out the intent of the party's when you have diametrically opposite or very, very significantly different I should say, areas of these two possibilities how you might interpret it. This area goes with that possibility much better than the other one.

It helps you figure things out, but let's understand that when area is given an addendum which is what we usually see, then it is the least powerful call and we saw that in the seniority of calls. It may still help derive intent. But that's one that's used as an addendum. Usually when you see an addendum it is at the end of the description and it says containing 12.07 acres more or less.

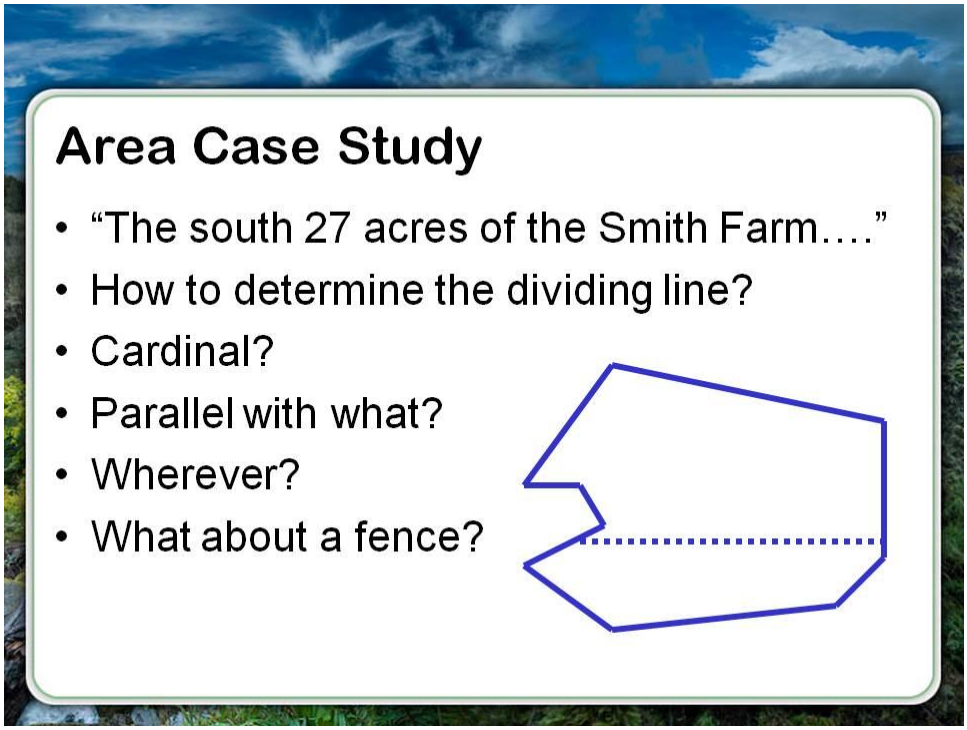
Occasionally you do see properties that are described where area is the primary call. It takes on the status of a measurement and it is like an LY description. You see the blue rectangle down there; let us say that it is 300 feet north and south there. Rather than say the north 100 feet of that, they might say the north 1 acre of that. Now it becomes north and one acre those are your two primary calls. It is like an LY but it has no distance in there it just has area. I like how Gurdon Wallace writes about it. He says when you have an area call that is the primary call it takes on the status of a measurement it becomes a distance. Whatever distance it takes to cut off that amount of area, so what we need to remember the line of division has to be described to avoid confusion. If you are writing a description great, you make sure you do this.

The problem once again you and I are interpreting millions of old legal descriptions that do not bother to tell how that line of division should be described. You will see some court cases and

other things when the federal government where we had some different interpretations on how that. In particular, the division line may not have been related at all to one of the other lines, it was related to the amount of frontage on the ocean or on a beach or something like that.

You never know so you should say you sold the north 10 acres but what did you mean by that where was that division line. Therefore, we have to see if the parties tell us anything, many times they do not tell us much more than that.

So now, here is a case study for a moment. This entire odd shape portion of land is the Smith Farm. Somebody sells the south 27 acres of the Smith Farm.



Now we have to go out and figure out how we are going to do that. So, 27 acres, I can figure that. There are an infinite number of solutions where I could run a line and make the south 27 acres.

In fact I could do this, let us see. Come on line, I could make some parcel like that and have 27 acres in here. Well its south of all the rest of that so see more people could be coming up with solutions. That is the problem, why we have not defined what the dividing line is even though we have made it very clear that the intent of the parties is the acreage.

Again, the real question is how we determine the dividing line and these things of record, we do not know. We could run it cardinal, cardinal is not a bad way to go, and it is somewhat neutral. If you think about it the fact that, everything on one side or the other is either north or south. They give us a south so a due east west line would do that but on some simpler parcels people would like to run it parallel to the south boundary. As you can see here we do not have one south boundary, we have three to get 27 acres. Maybe you know cardinal might work better there, but if you are going to do parallel, if you only have one south boundary fine go parallel to that. Here maybe we need to take this bearing, this bearing, this bearing, mean them. Run the dividing line parallel to whatever that means is or at the bearing to whatever that is.

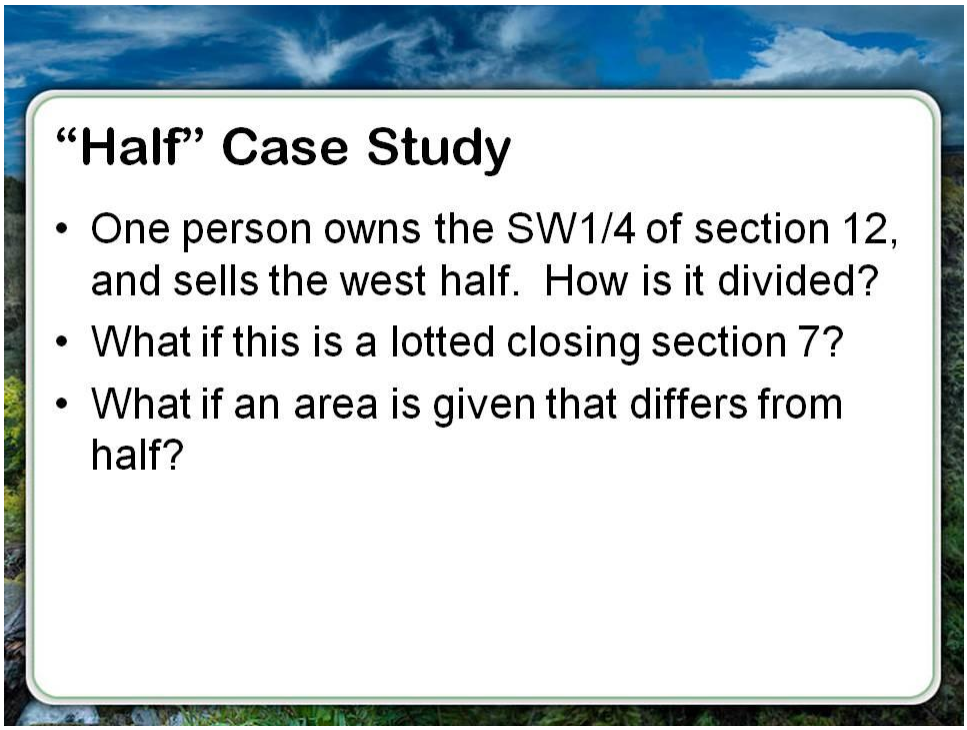
You see there is different ways to come up with it. As I said earlier there is an infinite number of ways, but I will tell you the one thing we really need to be aware of you cannot just put it wherever you feel like it. I will tell you something, go out and see if there is a fence out there if you are doing fieldwork. Now I'm not a fence line surveyor, but I'll tell you what, if there's a fence that's about the same age as the deed when this parcel was created and its slightly different than one of my solutions, but it cuts off pretty close to 27 acres I think, hey I will go with it.

You know I might mention you know I talked about rounding significant figures. And if you had a fence or other evidence that you might use the help figure out what its intent was, then it comes out that well they said 27 acres but there is only 26.8 south of the fence. Well if that fence is the same age and I am going to use it, then fine because 26.8 is within the rounding of 27 acres. Again, we do not want to play the COGO game, 27.00008 acres if we are going to use this evidence out there.

However, understand that if you do not have that fence or if you have something but it does not work. Then I suggest you give them 27.0000 acres, you are being neutral here, your right on the number that was given, rather than plus or minus it. That is a different approach.

So that is where the area, and there is one other thing about areas and that is this whole subject of half.

I just want to warn you that half of something may not always mean the same thing, in the public land system when we say half it is not by area it is by distance on those lines.



But let's just say that you've got one person who owns the whole south west corner of a section, so that means we're dealing with private land here and some of it comes back to the feds let's say.

One person owns this entire south west corner and he sells the west half, now how is that divided. If it is by the public land system then Section 12, so it could not be in a closing situation.
Let us see if we are in that then we take these two distances and divide them by two – that is how we would come up with that in the public land system. However, understand that the base parcel is the southwest corner of a section. Which is the public lands in some areas, California in

particular, if you do not say specifically that it is measured by the GLO or public land system then their courts have ruled that you meant half of the area. You have to divide that differently you are going to divide it by area because that is what your state law or jurisdiction is or the intent of the parties seemed to be then.

Where is the dividing line going to be. Because see in the public land system it's defined. Once you go back to area, its just like in our earlier screen, you're in that situation where you don't know exactly where that division line is, maybe run it parallel to the west line. People say he sold the west half, so run it parallel to the west line. I guess that makes just as much sense as any other solution. My point being is that you need to think very hard about the intent; you do not just jump on public lands and not on public lands.

It could be California where the courts are very clear that it is by area, unless otherwise said. Pay attention to the chain of title. Go back to when that west half was sold that we have now acquired that the feds have now acquired. Go back, look at one that was sold, and see what they say there. Let us say this was 160 acres and they sold the west half and its 80 acres. You know that is not very clear what the intent is, but what if this had been dependently resurveyed or we have different information on the acreage. The half that he gives you is exactly half of the record acreage. What if someone owned the whole southwest corner but this is like a section 7 over against the range line, lotted. We had aliquot parts, then lots but the acreage in the deed when he sold the west half is exactly half of the quarter sections acreage.

That's tells me I am not going to divide it by public lands. These are all examples of using the words they did give us so let us at least take the words they gave us and try to figure out intent out of it. Let us not jump to conclusions. That one thing is the kiss of death in surveying jumping to conclusions on interpretations and legal descriptions of any kind under any of the description systems.

Strip Descriptions

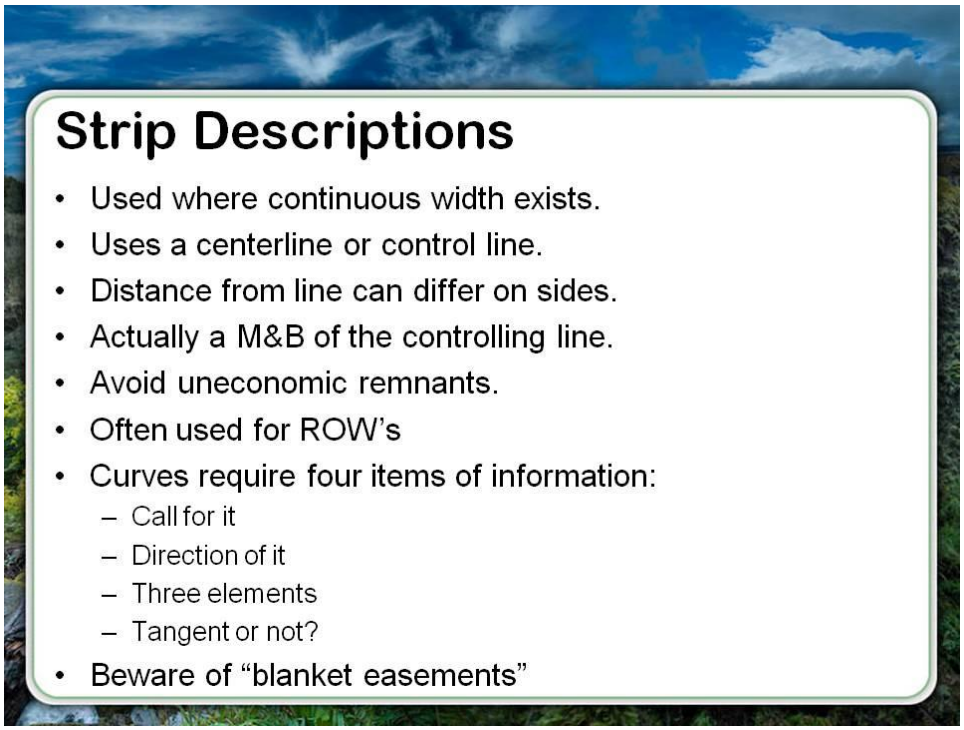
I want to move to strip descriptions for a moment. Let us just remind ourselves that these are usually used for easements when we have a continuous width or something.

They use a centerline of a control line it does not have to be you know the distances. It could be 50 feet north and 25 feet south of the following described line, you know it doesn't have to be same distance on each side of the control line, but it does have to be a continuous width overall for it to work with a strip description.

And as you folks know strip descriptions are the metes and bounds of the controlling line or the centerline and if you're creating new ones then I advise you to avoid uneconomic remnants that because sometimes you get switch backs and you get little tear drops of land that stay in the persons ownership.

That is just some advice on strips but that is what we usually use strips for, for right-of-ways, roads and that sort of thing.

I am just quickly moving through this reminding you of what you need there, you have curves because suddenly we are dealing with curves now and you know right-of-ways.



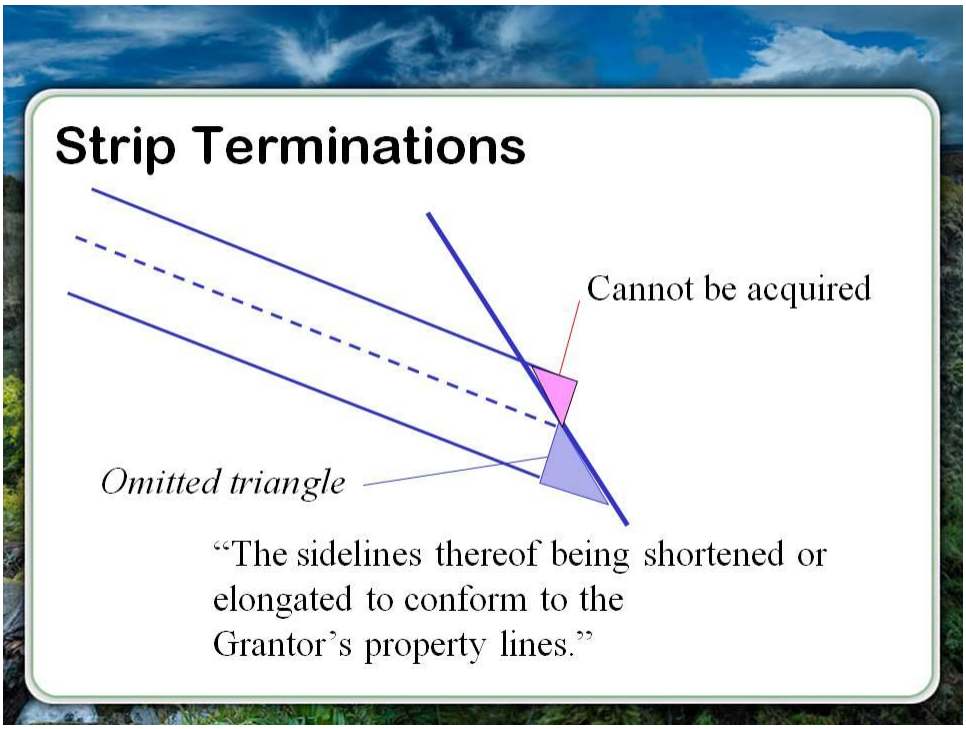
You should remember a few things. Call for it, tell us it is a curve and the direction of the curve, does it go to the left or to the right, is it concaved one direction or the other. Give us three of the elements, geometric elements, tangent, radius, delta, length, accord, all that stuff. All of these are useful to us; you need three in case one is in there. It tells us if its tangent or not, now that's for writing new descriptions, and you all have had opportunities, as have I, to try and figure out whether its metes and bounds, or a strip description and after a few hours you finally come to the conclusion that doggone it, that curve can't be tangent. They did not bother to tell me that it is a non-tangent curve.

Obviously when you are writing one, tell us its non-tangent, because the rule is you assume tangent unless told otherwise. I have seen a few descriptions over the years where it finally came down to I can't make this description work any other way than this curve can't be tangent, then you do some stuff and it works out just fine, but had they told you that. However, that is part of doing it; you know writing a new one.

Interpreting old ones recognizing that those things happen or you get, they give you the, the length of curve and the radius, and they have a mistake in the radius, you know a typo. That's why we do three so we can get a typo and the curve doesn't work you can use the other two or try two out of the three. There are three different possibilities to see what comes up to figure it out. So, that is strip descriptions. There is one more issue that we need to discuss about strip description and that is terminations.

When you are describing a strip of land, you essentially are moving along the centerline or your control line and you are going out at 90 degrees and collecting everything that is out towards you. So thence 100 feet north, so its 10 feet, 90 degrees to me whatever the widths are; and that is what I am describing in the deed. There is a problem when you come to the termination of the strip. If the strip ends at a 90-degree property line, then it is not a problem but it is going to be when it is at a different angle.

Let us look at this slide and see that the issue here is with the termination of strips, because that is how strips are defined.



If you are coming down this line this way, and you get to this termination point where you hit this property line or whatever it is, you are dealing with. The problem is that you have acquired land out here and you are at least describing it. Your grantor is on this side. So you have been describing land that is on this pink triangle there, that your grantor does not have the right to give you, or that you do not intend to or is not part of your project. Even more important, there is a triangle over here, the blue triangle that you did not acquire at all.

That's even more important because you need this you do not want to leave a gap where the blue triangle is that you did not acquire the right-of-way, in other words somebody could be driving down your road and trespass onto land that you did not acquire before they get over onto to this other property.

It is very important that we consider this and the way that that is resolved is that whenever we are writing new descriptions we just make sure that this statement here is included at the end or somewhere in the proper place in the legal description. The sidelines are being shortened or elongated to conform to the grantors property lines. That kind of a statement means that this line

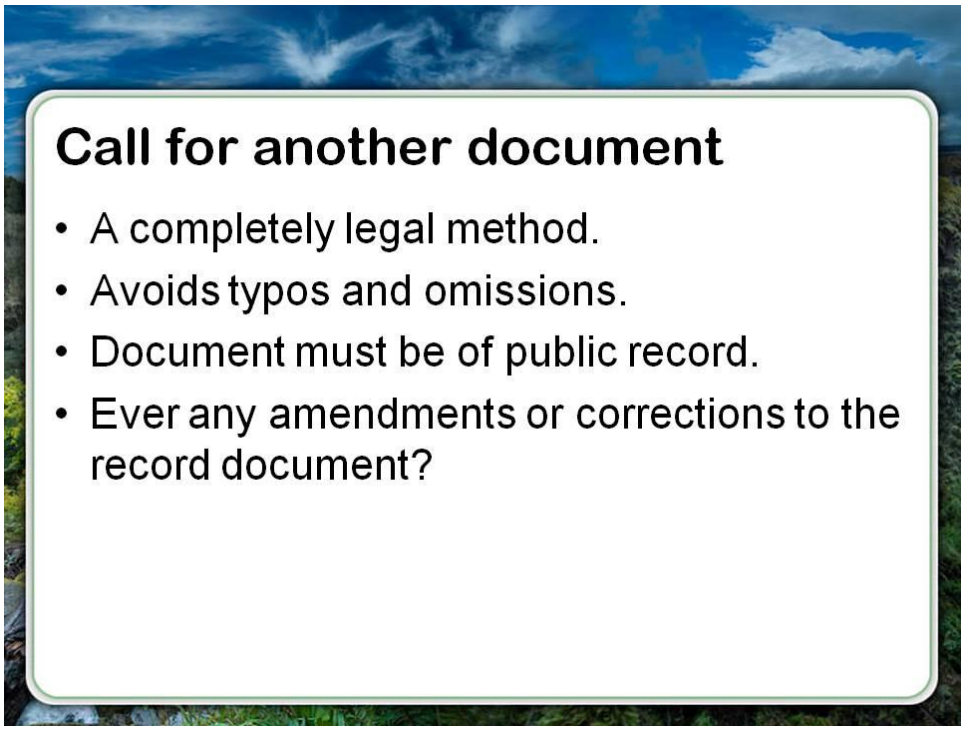
will be shortened here this line will be extended here and you will get the triangles that you intended to include. That is the issue with strips, as they terminate or begin on anything other than 90 degrees and so it is worth the thinking about.

Obviously when you're dealing with old strips and they don't have any language like that or anything similar to that, just recognize and to me that is something that I would put in an LDR, I would just say well there is a slight risk that this cannot be, that there is a gap here in this. That is up to somebody else, if they want to do that, and I cannot fix it, I just know that the words do not say what they need to say. Sometimes in the courts, especially in the lower courts, the courts will say well you know what hey they intended a road all the way across here and that is fine. Therefore, it is somewhat of a minor risk and that is why I added this at the end of the strip.

So when we are writing new descriptions, let us just be sure to put that language in so we do not have any issues. And with the old things well you have to take a look at what they said, what the issues are, and what the land values are and decide if we are going to deal with it or not. At least raise the issue or not, so that is it about strip descriptions including that kind of oddity, it is almost one of those trivial things. The courts have ruled that people do not get the right-of-way there. Now of our descriptions system we have one remaining it is a very simple one. It's the call for another document.

Call for Another Document

When we call for another document, let us remember it is a legal method. It avoids typos and omissions; and that is cool, because every time somebody retypes a deed they risk the chance of typing something in the legal description incorrectly, and some of you have probably seen that where they left an entire line out.



Go back in the chain of title, you can figure out what is wrong, if you just called for the other document that would be great.

The document that you are going to call for must be of public record, it must be of constructive notice. You need to consider if there were ever any amendments or corrections. I have personally been burned

on that, a couple of times where I called for a record document and found out it had been amended and I did not call for the correct one. I was not aware of the amendment and how it affected my survey. So you always want to be careful of that when you are calling for another document.

In essence, think about it, LY descriptions are technically calling for another document. The southerly 100 feet of this, other parcel is a record. Public lands do it, southwest corner section as shown on the plat. What we are talking about here is even simpler. It's just, look if I'm selling you this land and I bought it five years ago and I'm selling the exact same piece of land, why don't we just say instead of rewriting that whole legal, why don't we just say that exact same parcel that came in that book and page over there or however your recordation system works.

It is that exact same piece of land. This can also be done with maps. You can have a great survey of a parcel that is split into three and, you know you got lot A, B and C or something where there is all kinds of information. It even has ties to other corners. It is just a great piece of information to be able to figure out where these lots are 100 years from now. You could either write a metes and bounds around those parcels. On the other hand, you could just say that parcel shown as lot B on that map, recorded at that place. Some jurisdictions shy away from it. However, it is legal method and I strongly recommend it under the right circumstances. As I mentioned, it avoids typos and omissions and those are a source of error. You know my point is this, if it has been done in the record like that then it is legal method and then you have to go back in the chain to find it. Had to find what they are referring to, and if you are writing new documents you can occasionally take advantage of this method as well.

So those are the seven methods, we did not talk about public lands because that is in separate courses. We use those basic description systems in the United States. They have all evolved, in fact the only one that has not was designed by statue, was the public land system. All the rest evolved and are a result essentially of case law and occasionally statutory law but usually case law. It makes for interesting learning and I will not say it is ever changing because the courts are consistent with land boundary issues. The higher courts, the lower ones are all over the map literally pardon the pun.

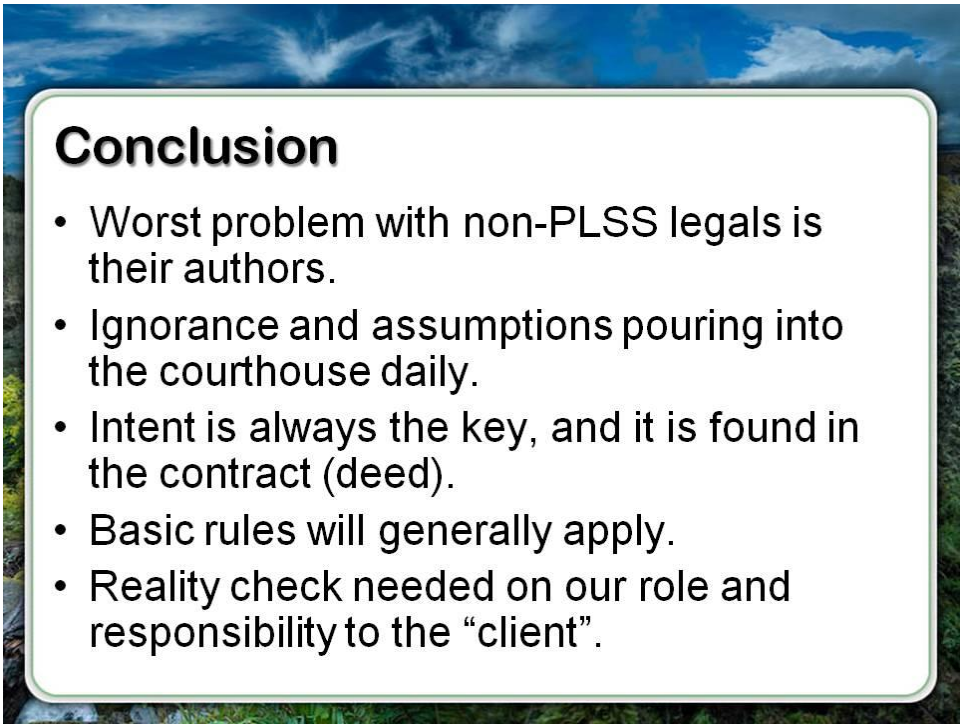
What we have been looking at is just these basic issues as how the land is described, whether it was acquired, or it has just been conveyed away by the government, but you and I are in there surveying it. And how to deal with some of those words, the intent if the parties and that sort of thing, in order to figure out where to put this on the ground or what the potential issues are with it if it were to be put on the ground.

Conclusion

So let me give you, I am ready to wrap this subject up, but let us just look at a few conclusions that we can draw from what we have said here.

First, the worst problem with most non-public lands legal descriptions is their authors. It is even true with some public lands legal descriptions too. The people who write them just do not know what they are doing. I am sorry, that is the reality you and I have to face and deal with it.

There is incredible ignorance about the law and assumptions that people pour onto legal that pour into your courthouses every day. My point is that there are still bad legal descriptions being written and recorded everyday, you, and I ultimately are the people that deal with that.



Intent is always the key, it is always found on the contract or the deed, and that is going back to our statues of fraud discussion. In addition, you and I are always trying to figure out intent and that is where it is. We may have to do a lot of research to figure out what was going on back then and what they meant back then. There are some basic rules that will generally apply you cannot say always about anything in surveying, but we have seen what those basic rules or systems are. Junior/senior rights all that kind of stuff. You and I always need a reality check as to what our role is and what our responsibility is to our client whether that is the federal government, an individual, another government agency, an Indian, a tribe or BIA.

The reality check is that we need to make sure that we understand that we are not just there to put the current deed on the ground, or slop something in or measure up what their occupying and that’s all that matters some of those thing we talked about earlier. The reality check is that you

and I go in and look at a thorough research of the record and if it includes research we go out on the ground and we do a thorough research of the evidence. Piece that all together, analyze that, and come up with recommendations, solutions or corner points or whatever the product is that we are producing.

Recognize that there are things that you and I will discover, we did not create them, we discover them and we have to report them. Report them via one of the evidence standard forms or just in a report to a client or to your supervisor or whatever, you have to report what you found, what the issues are, and some time there are things we cannot fix. I do not care what you, I, well I, I just have a feeling this is what they intended. You need to be very careful, that is where incredible liability comes in. We need to be cautious and that is just, what being a professional surveyor is about.

Speaking to a BLM surveyor or certified federal surveyors, through the CFedS program this is what is expected of us. The thorough research of these things and making sure that we really know what we are doing and make user we have looked at the facts and that the recommendations are in harmony with those things and are reasonable and I guess we could say can be defended.

So let us take a quick look at what our lesson objectives were here. We said we were going to look at some historical overview of things before the public land system and we talked about the kind of problems, crisis that the metes and bounds on it can create. We had some basic understanding of legal terminology, especially junior/senior rights, seniority of calls that kind of stuff. We looked at it as if we were retracing, analyzing, investigating these metes and bounds parcels. Then we looked at the seven land descriptions that are used in the United States.

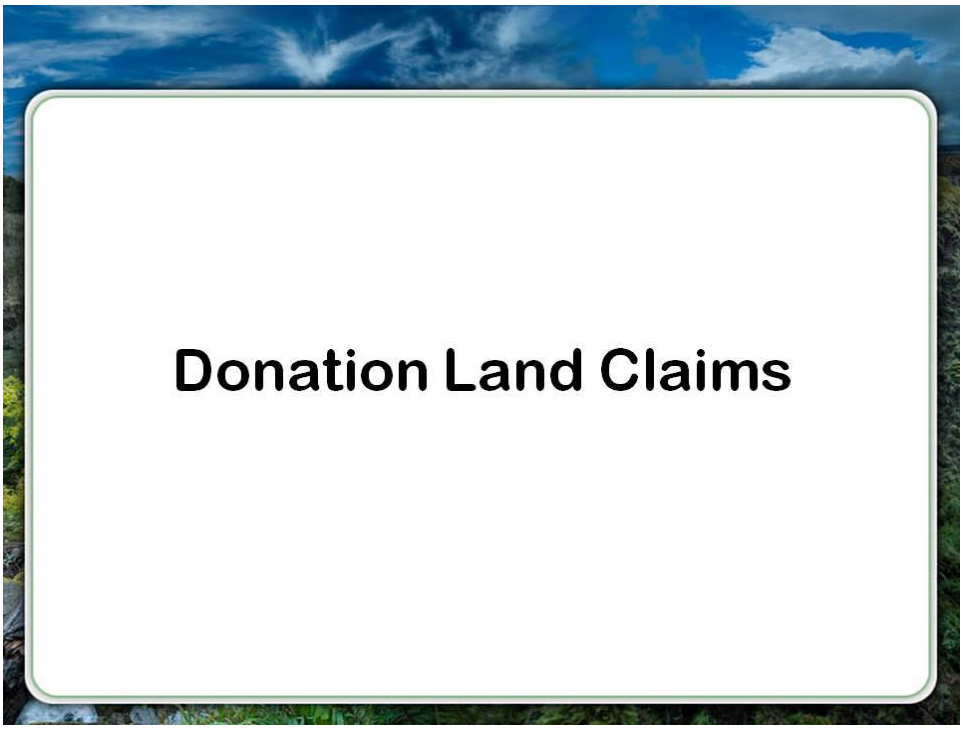
We set out at the beginning those objectives. Well I will not be bias and say we covered those real good. We did cover those things and I hope it gives you a little more basis and background for the rest of this advanced cadastral four non-rectangular surveys course. What Ron Scherler and I attempted to do with his common elements and with this General Metes and Bounds is to remind and refresh us on the many things that are in metes and bounds, surveying, the laws that we have and the sources of the principles that we have. Then we can start applying them where the work in the various non-rectangular entities.

That will be the end of this session and I will see you later when you get to mineral surveys and retracement of those so see you there.

Donation Land Claims, Part 1

Introduction

Welcome to the donation land claims segment of the non-rectangular survey, I have asked Roger Green, the CFedS Training Coordinator, to join me to discuss some of this. So thank you Roger for joining us.

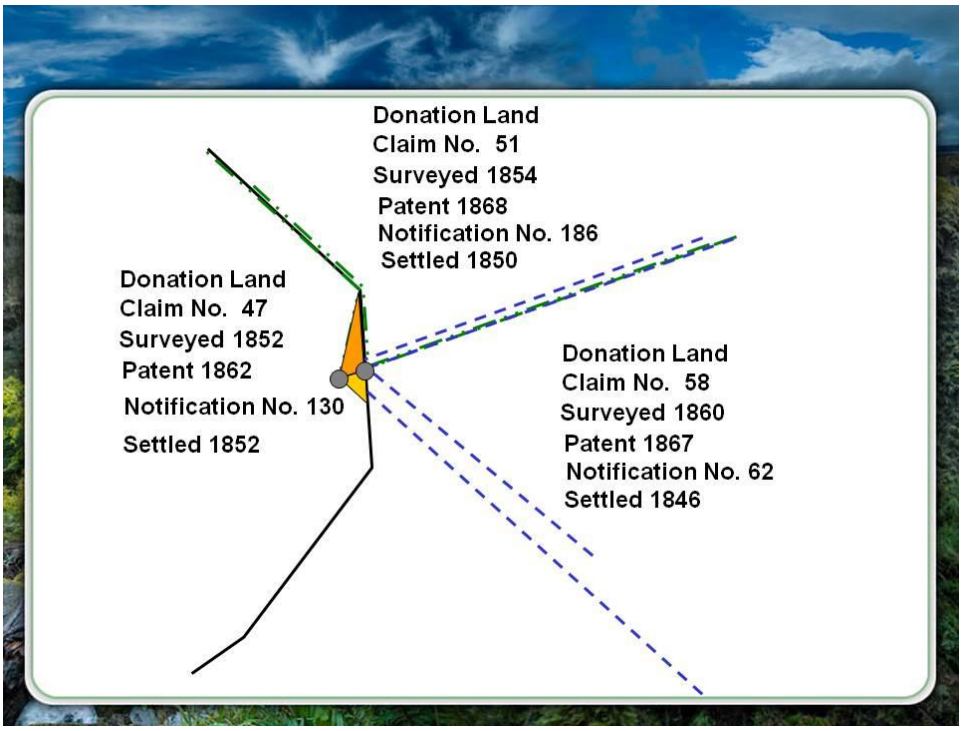


I want to start with just an example of the kinds of issues that you may run into in a donation land claim situation. We are just going to walk ourselves through one and Roger and I are going to discuss it a little bit. So let us start by looking at the first survey that was done here which was donation land claim number 47.

Example – DLC No. 47

DLC No. 47 was surveyed in 1852. It was a metes and bounds type survey and it does not conform to the rectangular system. A couple years later, 1854, donation land claim number 51 was surveyed, and the corner of donation land claim number 51 is called out in the field notes as being on the claim line of claim number 47. This corner here is called as being on the claim line

of claim 47. Later, in 1860, claim number 58 was surveyed, and the same corner is common to claim 51 and claim 60 and is supposed to be on the boundary of 47.



That is our situation. Now, Roger, with just that information available, as we look at this, what are we going to do if we find the monuments and that the monument is not on the claim line? If we look at our slide, we will see that we have found the corner that now invades claim number 47 by some amount. Based just on the information that we have, who are we going to say owns this area in yellow, or this area that is kind of in conflict here?

Well, on this information, it looks like simple senior survey and there is no way those two junior surveys could invade claim 47 is there? That is the way it looks. So with just the information we have, it would look like claim 47 owns that area in conflict and somehow we're going to have to move that corner back on to the original claim line. I am going to give you some more information, were going to work through this. Claim 47 was patented in 1862, Claim 51 was patented in 1868, and Claim 58 was patented in 1867. So now, Roger, given that information, what is our answer to the same question?

We have not changed the entry dates; they look the same, or the patent dates I should say. So again, it looks like we ought to hold Claim 47 whole. Because Claim 47 is still the senior survey and the senior patent, so they are going to have the senior right.

Now we are going to add a little more information – the notification date. Notification is a process where if you had a donation land claim, you had to fill out a form, and submit it to the Surveyor General's office claiming that. It asks you certain information. They were filed in numeric order. As they were filed, Claim number 47, was notification 130. Claim number 51 is

notification 186, so it came later. Claim number 58, was notification number 62, so claim number 58 came first.

This really changes the complexity of this situation. The more information we get things get a little more complex. Now it is not so straightforward is it? So based on this information, what are we going to do with this area in yellow? Well looks like Claim 58, we have to hold them whole. So Claim 58 you are saying, we are going to hold them whole. We may have something now that looks more like this. Where Claim 58 is held whole and Claim 51 has to give way to Claim 47.

We are going to look at another piece of information now - settled. Claim 47 was settled in 1852. Claim 51 was settled in 1850, prior to Claim 47. Claim 58, was settled first, 1846. This really changes the mix. It does, and what we are going to find out is, as we continue to gather evidence, instead of making maybe our decision clearer, it actually begins to muddle things.

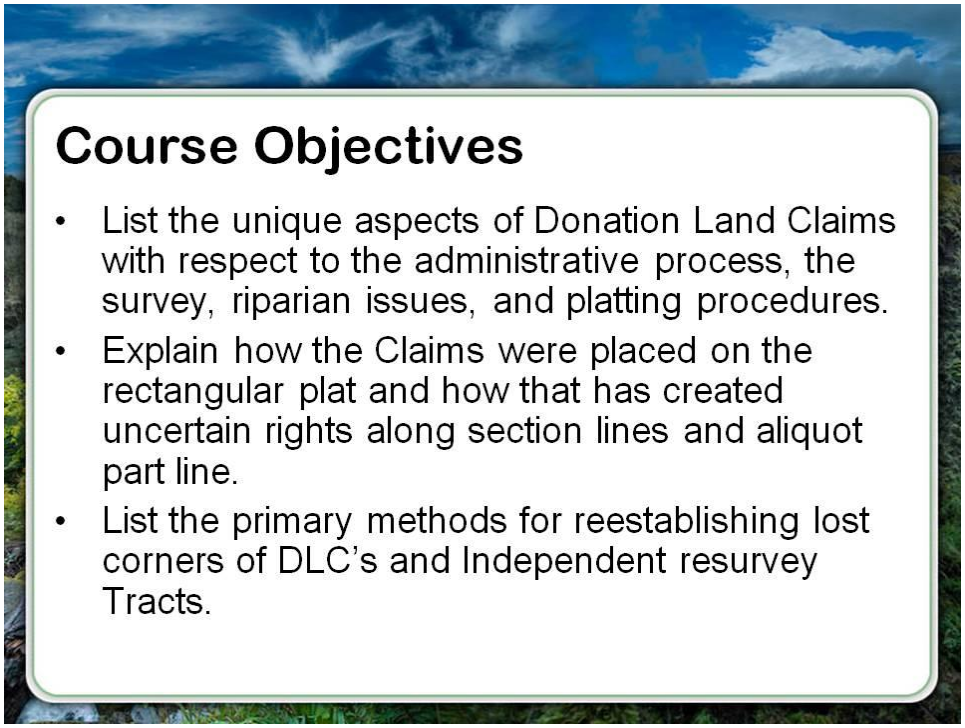
Who does have the senior right here? When we have one person that has the senior patent and the senior survey, but someone else has the earliest settlement date, or the earliest entry date. Now we are not going to carry this through any farther. This is just an example of the kind of situations we are going to run into, and I just wanted Roger here so we could kind of talk through it. We are going to look at this as we go through the course and now we are going to look at our objectives, and thank you Roger for joining us.

Objectives

Upon completion of this course, you should be able to list unique aspects of donation land claims with respect to the administrative process, the survey, riparian issues, and plating procedures.

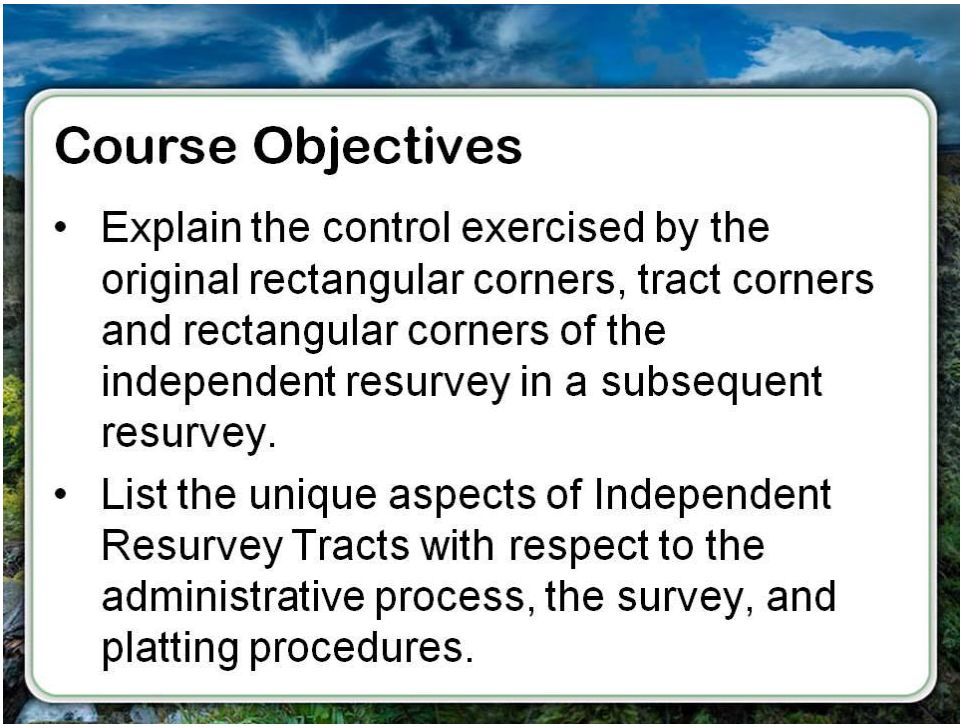
Explain how the claims were placed on the rectangular plats and how that has created uncertain rights along section lines and aliquot part lines.

List the primary methods for reestablishing lost corners of donation land claims, and independent resurvey tracts.



Explain the control exercise by the original rectangular corners, tract corners, and rectangular corners of the independent resurvey in a subsequent resurvey.

List the unique aspects of independent resurvey tracts with respect to the administrative process, the survey, and the platting procedures.



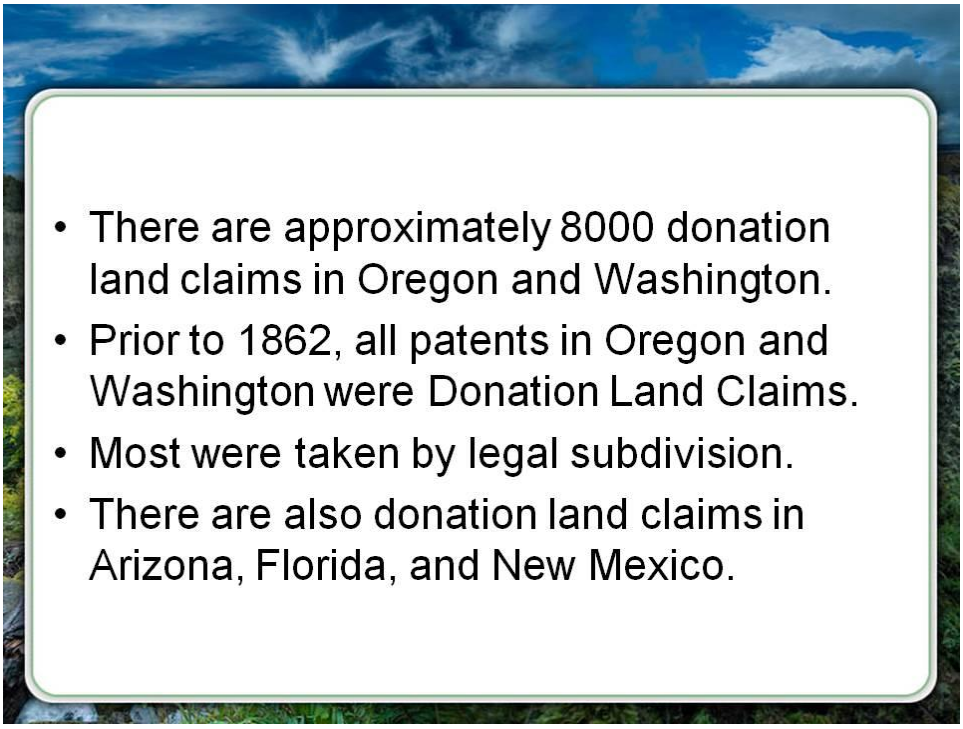
History

Let us begin by talking about the specific issues that we are going to deal with here with donation land claims. We need to look at this book, written by Al White. If you are dealing with donation land claims in Oregon, you need to get a copy of this book. It has the information that you need to understand how the process worked.

Now, in Oregon, there are approximately 8,000 Donation Land Claims in Oregon and Washington. Prior to 1862, all patents in Oregon and Washington were donation land claim patents. Now, most were conformed to the legal subdivision but they were Donation Land Claims. There is also donation land claims in Arizona, Florida, and New Mexico.

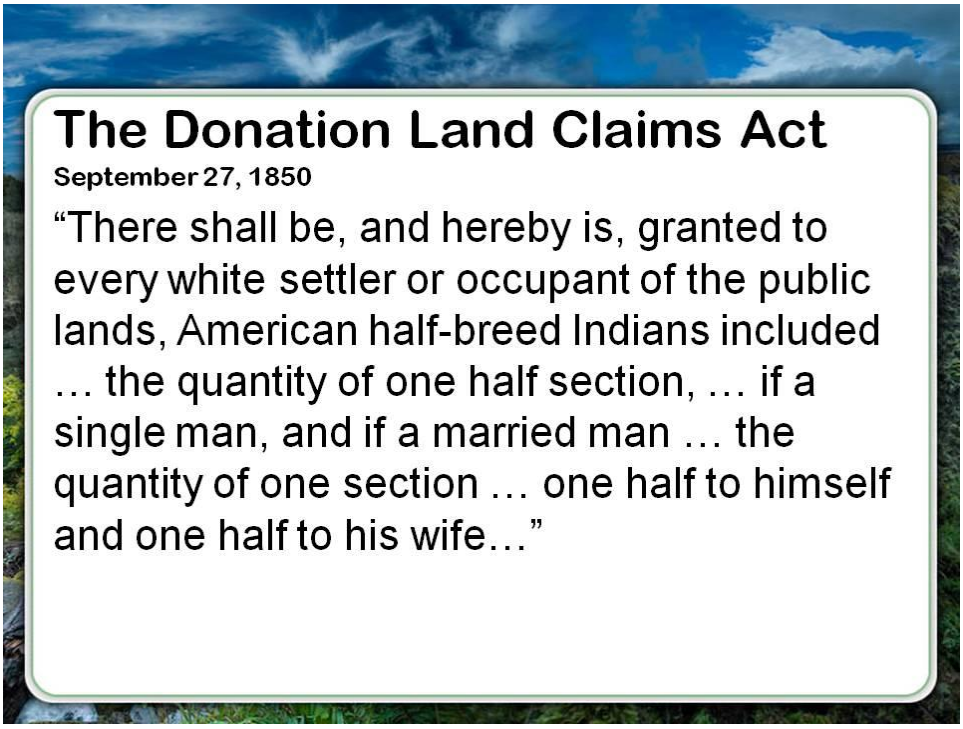
The process is not the same in all states. If you are dealing with a donation land claim in another, state it may be different from what you are going to see here. Part of what we're doing in this course, is giving you specific information about certain non-rectangular surveys, so you can see the issues that you're going to have to deal with.

You are going to have very similar issues. They may have different record systems, they may have different filing systems, but you will see the kinds of issues that you need to deal with and make sure that you understand so as we go through the Donation Land Claim for Oregon and Washington, it may be different from what might happen in New Mexico or Florida. You will see the kinds of questions I guess that you need to ask.

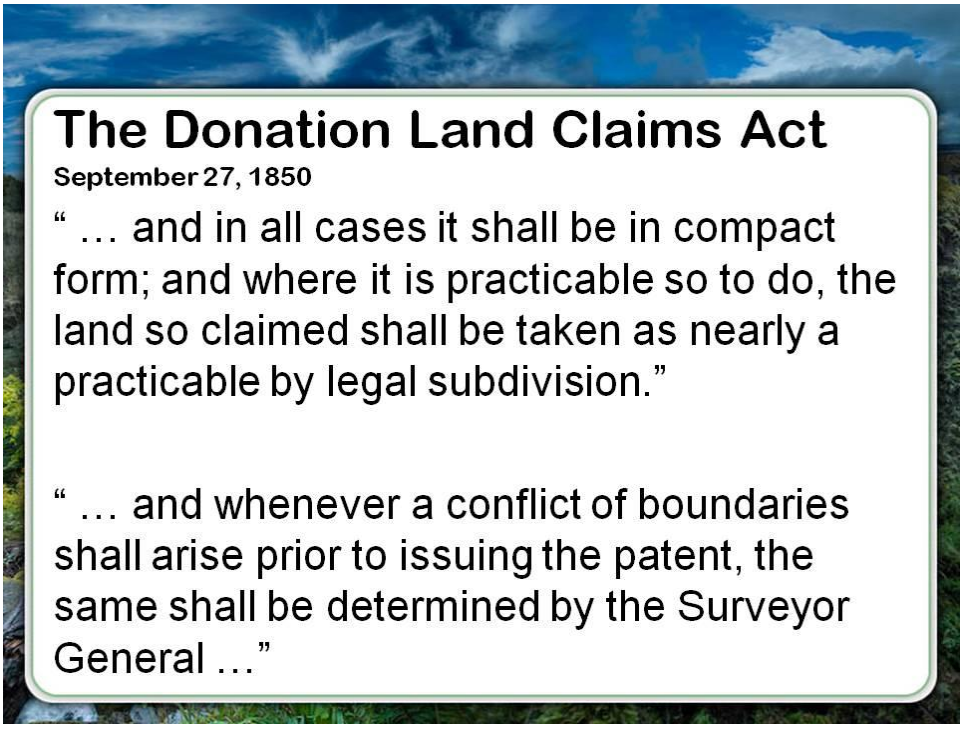


Donation Land Claims Act

The act was passed in 1850, and it said "there shall be, and hereby is, granted to every white settler or occupant of the public lands, American half-breed Indians included…the quantity of one half section,…if a single man, and if a married man…the quantity of one section…one half to himself and one half to his wife…"



So they were given 640 acres if they were married, 320 if not, and this is somewhat unique that half of that went to the wife and half to the husband. You will see as we go a little later in the presentation that it created some problems in the way that it was described.



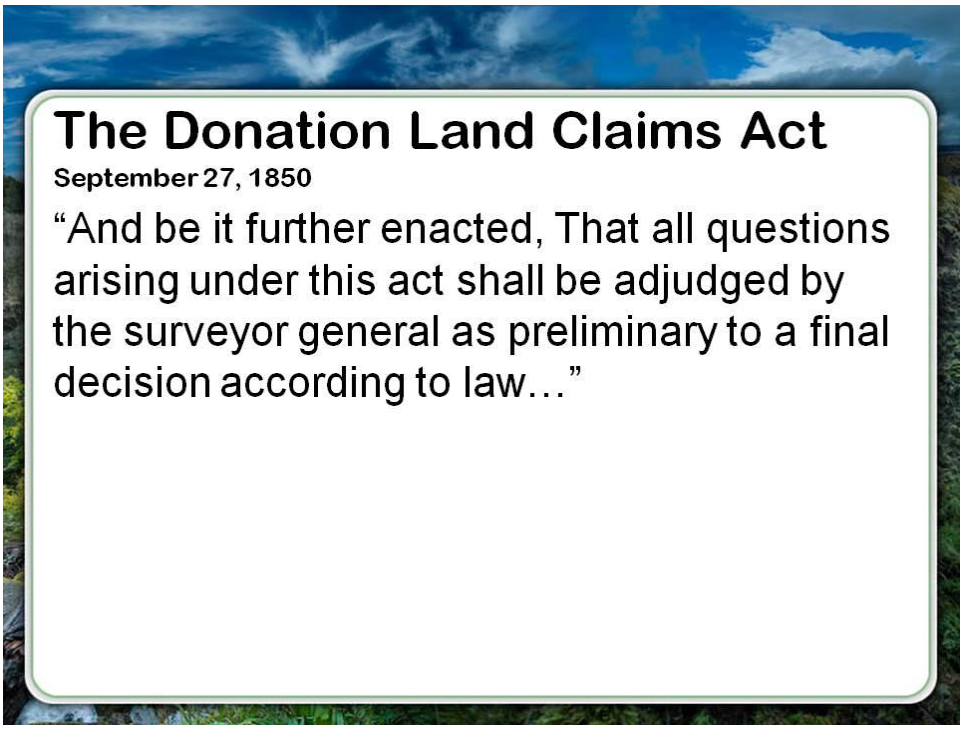
This was a donation, in other words the government was saying, you can have this land. It is a way to get settlement going. At the time the act was passed, there were a lot of settlers there, way before survey, before there was any real legal way for them to gain title, and now this was given to them, that legal method for getting titled.

It went on to say "in all cases it shall be in compact form and where it is practicable so to do, the land so claimed shall be taken as nearly as practicable in legal subdivision…"
It is supposed to be in compact shape so we do not want it stretched all over and legal subdivisions if possible, "and whenever a conflict of boundaries shall arise, prior to issuing the patent, the same shall be determined by the Surveyor General…"

That last statement is interesting because it is saying; it is giving the Surveyor General some real authority to resolve conflicts and we will see as we go on that that is even reinforced later on.

"And be it further enacted, that all questions arising under this act shall be adjudged by the Surveyor General as preliminary to a final decision according to law…"

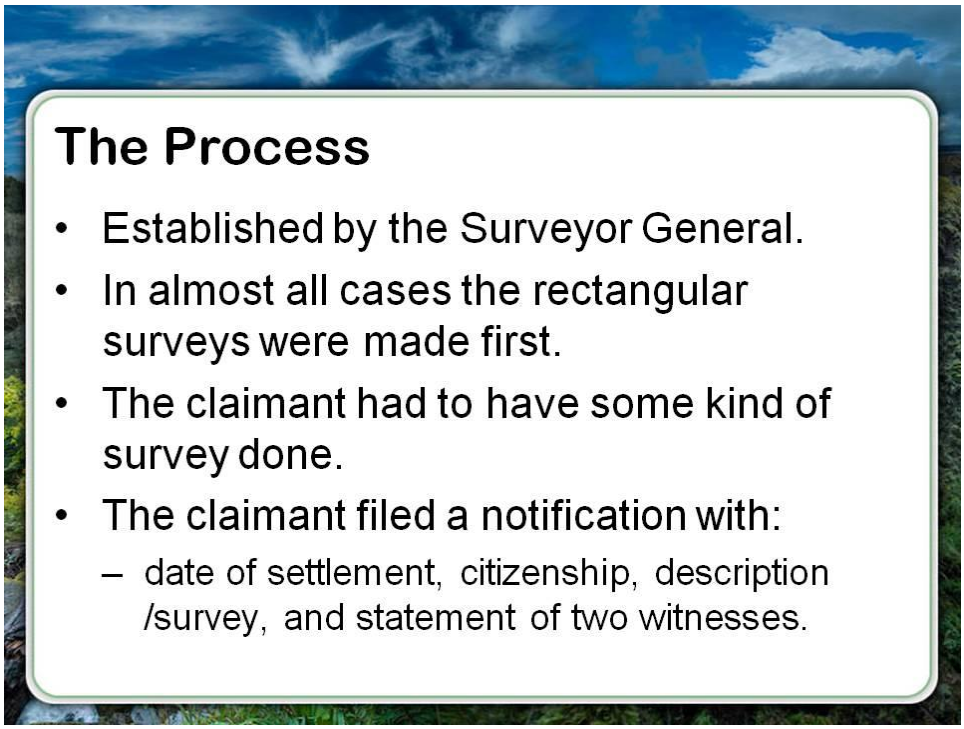
It is saying if there is a problem, the Surveyor General is going to decide what to do. Now of course the courts might overrule that but the Surveyor General is the deciding official in all issues dealing with this act, and the Surveyor General did exactly that.



The Process

The Surveyor General resolved conflicts with claims, he set up the process, and he was in charge of this entire thing, so let's look at the process the Surveyor General set up.

Now, in almost all cases, the rectangular survey was made first and I say almost all cases. To my knowledge, in all cases, the rectangular was made first, to my knowledge. There may be a situation out there where the rectangular system was always done first and then the claims were surveyed second.

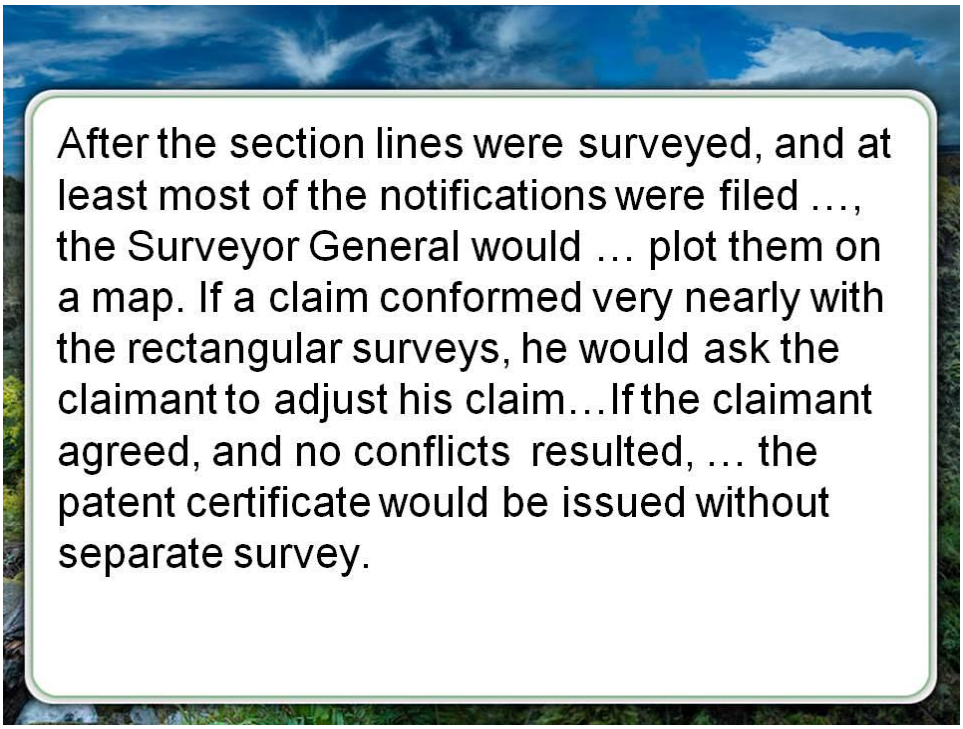


Many times those claims existed, prior to the rectangular survey but the official survey of them was not conducted until after the rectangular survey.

Second, the claimant had to have some kind of survey done. So there were actually two surveys, a preliminary survey that the claimant had to have done located his claim that is how the Surveyor General could identify if there were conflicts. What land was claimed, if there were little gaps that needed to be taken care of, what land was available, what claims might be conformed to the aliquot part lines. Because when that could be done that was a much cleaner way of identifying these surveys, so there had to be a preliminary survey.

Now, where you find those though, that is an issue. Those are actually in Oregon and Washington. In Oregon, they are found in the state, and in Washington in the state. The federal government does not have those records of preliminary surveys. Another thing, the claimant had to file a notification with the date of settlement, citizenship, description or survey, and statement of two witnesses. That information is still available for us today, we can see that notification it was actually a form, and we will look at on there in a minute.

It was a form that the settler had to fill out and submit to the surveyor. Those were numbered just sequentially, so depending on when you got in line, what day you went in, that was your notification number. It had nothing to do with who was on the land first, who was on the land second, none of that. It was just who happened to get to the Surveyor Generals office first to file their notification, and of course once the Surveyor General had issues with these rules, it took some people quite a while to get to the office where they could actually file their notification.



The notification date is not so much about when their rights were established as when they made the Surveyor General aware of their claim and what their claim was.

After the section lines were surveyed, remember they were surveyed first, and at least most of the notifications were filed, the Surveyor General would plot them on a map.

If a claim conformed very nearly to the rectangular surveys, he would ask the claimant to adjust his claim…if the claimant agreed, and no conflicts resulted, the patent certificate would be issued without separate survey.

Now that's an important point because if he confirmed his claim to the rectangular survey, then it could be described by aliquot parts, there was no need for an additional survey, and that saved money and it saved time.

As a claimant, it was to your benefit to adjust your boundaries a little bit to fit the rectangular system if possible. Many times that was not possible because there were so many claims in an area that it just took too many adjustments to conform to the aliquot parts. Once the rectangular survey was in place, new settlers were required to file based on aliquot parts or the original rectangular plat, and you'll find that the majority of donation land claims are actually described by aliquot parts and based on the rectangular survey system.

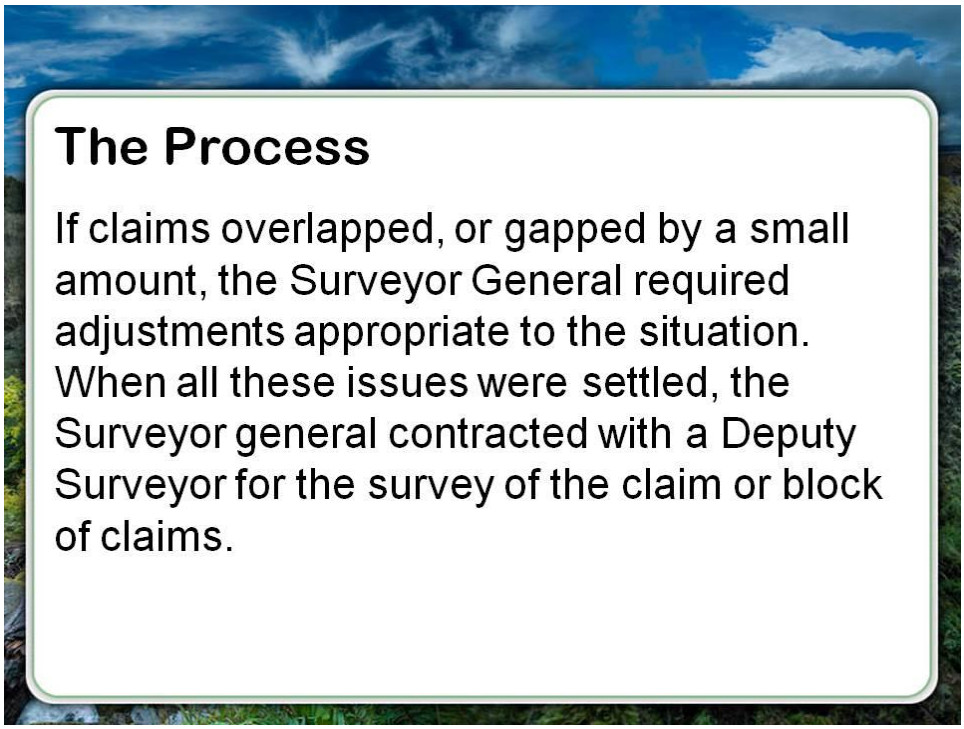
It is only the early survey, the early claims that were prior to the rectangular survey that you will find these metes and bounds descriptions.

If claims overlapped or gapped by a small amount, the Surveyor General required adjustment appropriate to the situation. When all these issues were settled, the Surveyor General contracted with the deputy survey for the survey claims, or block of claims.

Even though you might be the first settler in a township, maybe you showed up in 1846 and you are the first claimant there, you may not end up with the first survey. Because the people around you may not all have their notifications in and some other part of the township, all of the claimants may have their notifications in, have their preliminary surveys in, and so the Surveyor General will say "lets go survey that part of the township first."

Your date of survey really did not always have a lot to do with when you settled and when you first established a right in that land.

We'll see as we go along if that can become an issue, so notification date, or number, does not really equate to rights.



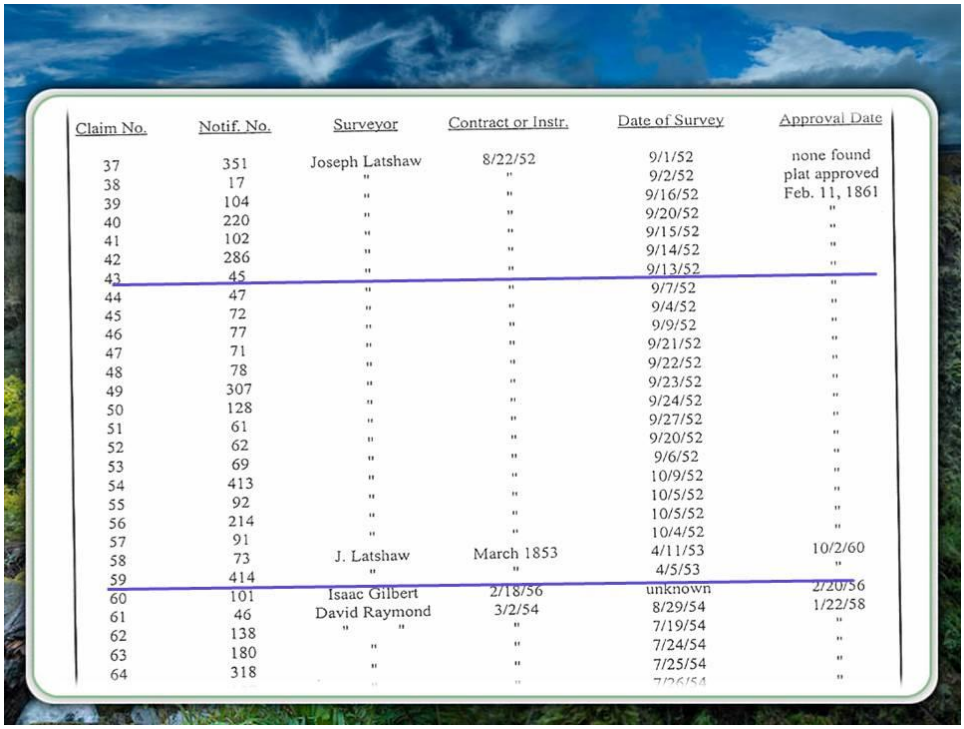
Survey date, does not really equate to rights either, as we go through this.

I want you to look at this diagram and this is just for one township. I just want to look at a couple, this one I underlined here, and you may have to look in your study guide to see this a little clearer. Notice that claim number 43, is notification 45 so it is an early notification, it was surveyed in 1852, and it was patented in 1861.

Now I want you to look down here at claim number 59 so it has a later claim number. Its notification is 414, so it is a later notification number; date of survey is 1853 so it was surveyed later. However, the survey was approved in 1860. The survey was approved first.

So how do you deal with those kinds of numbers?

We are not used to that kind of a sequence when we are dealing with rectangular surveys, patents that are based on rectangular surveys.

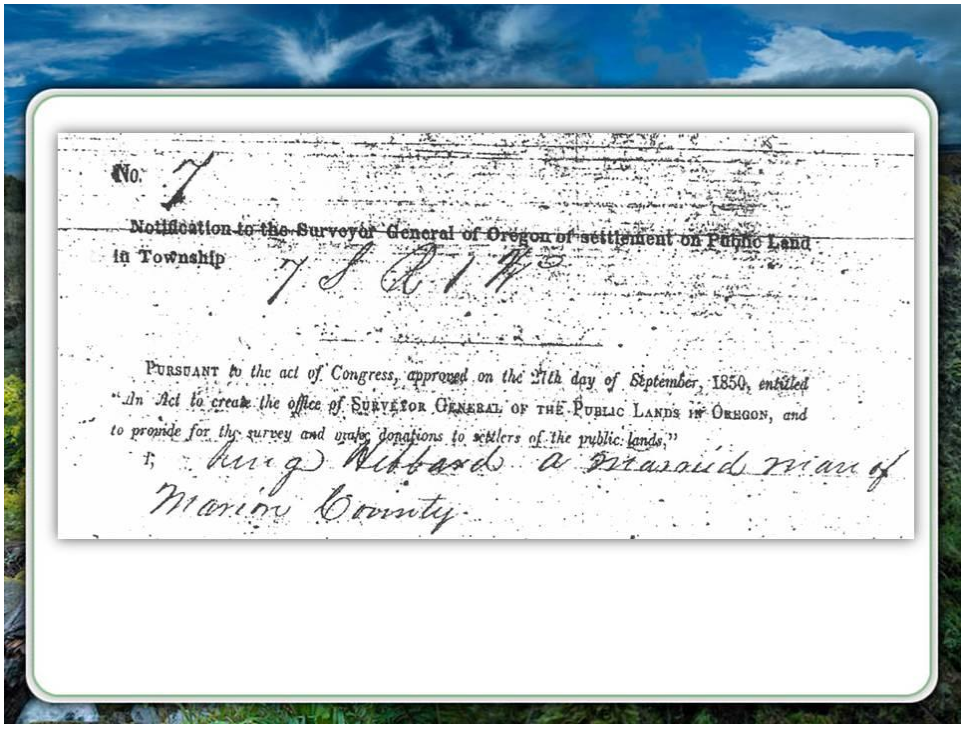


Claim No.	Notif. No.	Surveyor	Contract or Instr.	Date of Survey	Approval Date
37	351	Joseph Latshaw	8/22/52	9/1/52	none found
38	17	"	"	9/2/52	plat approved
39	104	"	"	9/16/52	Feb. 11, 1861
40	220	"	"	9/20/52	"
41	102	"	"	9/15/52	"
42	286	"	"	9/14/52	"
43	45	"	"	9/13/52	"
44	47	"	"	9/7/52	"
45	72	"	"	9/4/52	"
46	77	"	"	9/9/52	"
47	71	"	"	9/21/52	"
48	78	"	"	9/22/52	"
49	307	"	"	9/23/52	"
50	128	"	"	9/24/52	"
51	61	"	"	9/27/52	"
52	62	"	"	9/20/52	"
53	69	"	"	9/6/52	"
54	413	"	"	10/9/52	"
55	92	"	"	10/5/52	"
56	214	"	"	10/5/52	"
57	91	"	"	10/4/52	"
58	73	J. Latshaw	March 1853	4/11/53	10/2/60
59	414	"	"	4/5/53	"
60	101	Isaac Gilbert	2/18/56	unknown	2/20/56
61	46	David Raymond	3/2/54	8/29/54	1/22/58
62	138	" "	"	7/19/54	"
63	180	"	"	7/24/54	"
64	318	"	"	7/25/54	"

This is a little more difficult to deal with and I hope as we work through the process, you will see a little clearer how to deal with these issues and how the issues that comes up with donation land claims, need to be handled.

Well this is a notification, this is the form, and I'll just blow that up a little bit, it's still kind of hard to read because this is an old form, but I want you to notice at the bottom of this form, it says King Hubbard, married man of Marion County.

It notes here that he is married. If we look at the bottom part of the form, one of the things we will notice is in this area, the rectangular



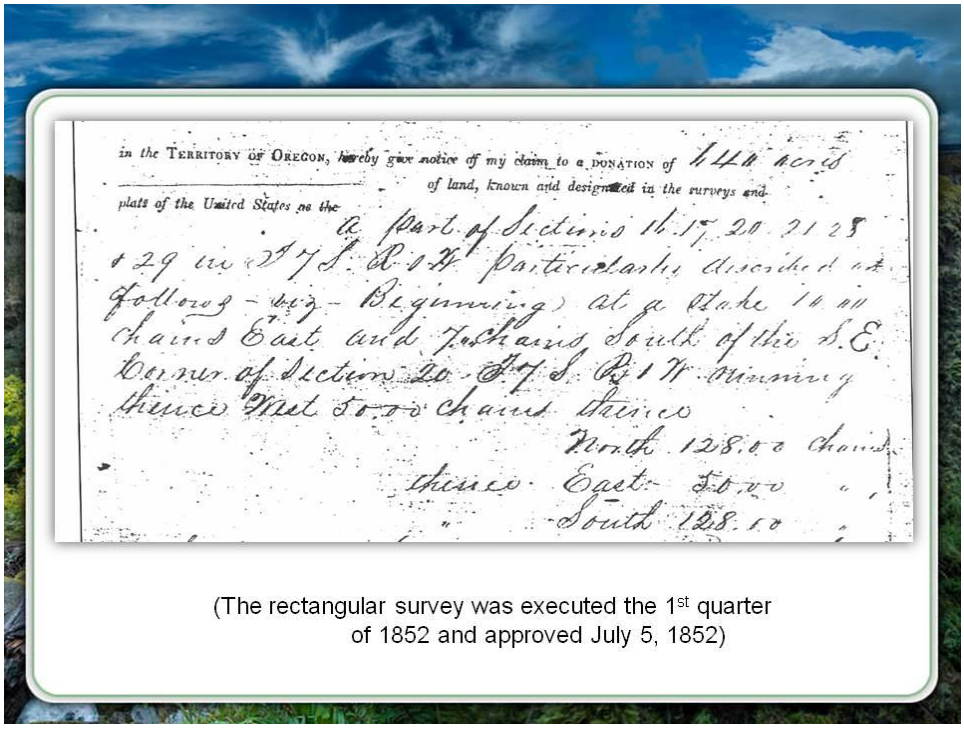
No. 7

Notification to the Surveyor General of Oregon of settlement on Public Land in Township 7 S R 1 W

Pursuant to the act of Congress, approved on the 27th day of September, 1850, entitled "An Act to create the office of Surveyor General of the Public Lands in Oregon, and to provide for the survey and make donations to settlers of the public lands,"

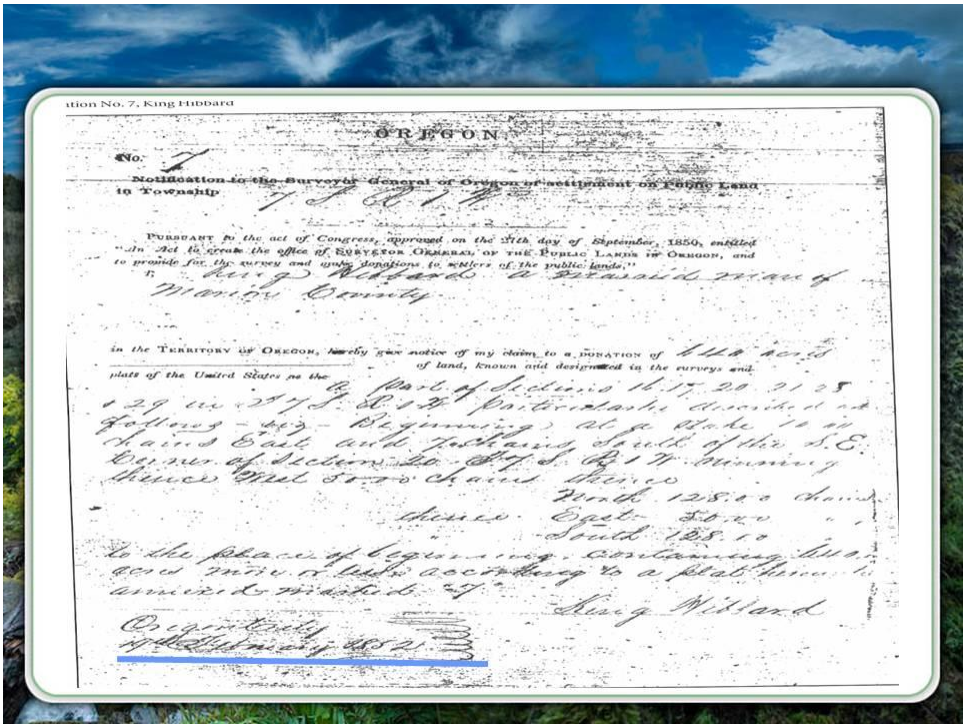
I, King Hubbard a married man of Marion County

survey was executed in the first quarter of 1852, it was not approved until July of 1852.

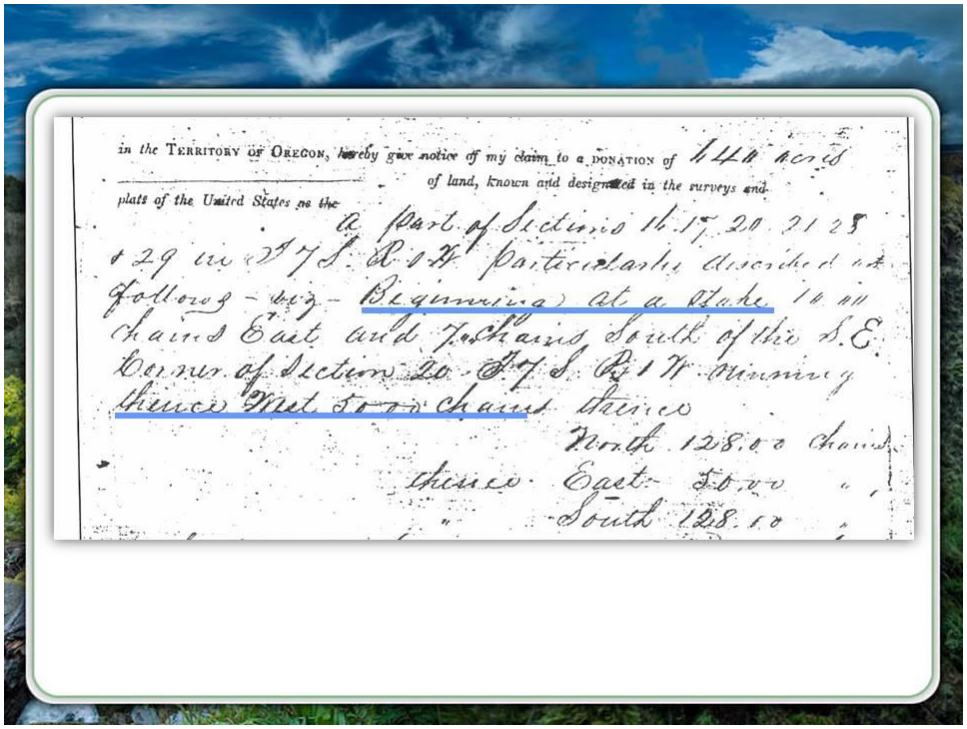

in the TERRITORY OF OREGON, hereby give notice of my claim to a DONATION of 644 acres
of land, known and designated in the surveys and
plats of the United States as the
A part of Sections 16 17 20 21 28
& 29 in T 7 S. R 2 W particularly described as
follows - viz - Beginning at a Stake 10 00
Chains East and 7.50 Chains South of the S.E.
Corner of Section 20 T 7 S R 1 W running
thence West 50.00 Chains thence
North 128.00 Chains
thence East 50.00 "
South 128.00 "

(The rectangular survey was executed the 1st quarter of 1852 and approved July 5, 1852)

Now right down here at the bottom, and it is hard to see, this notification was filed in February of 1852.


ation No. 7, King Hibbard
OREGON
No. 7
Notification to the Surveyor General of Oregon of settlement on Public Land
in Township 7 S R 2 W
PURSUANT to the act of Congress, approved on the 27th day of September, 1850, entitled
"An Act to create the office of SURVEYOR GENERAL OF THE PUBLIC LANDS IN OREGON, and
to provide for the survey and grant donations to settlers of the public lands,"
I, King Hibbard do hereby notify
Marion County
in the TERRITORY OF OREGON, hereby give notice of my claim to a DONATION of 644 acres
of land, known and designated in the surveys and
plats of the United States as the
A part of Sections 16 17 20 21 28
& 29 in T 7 S. R 2 W particularly described as
follows - viz - Beginning at a Stake 10 00
Chains East and 7.50 Chains South of the S.E.
Corner of Section 20 T 7 S R 1 W running
thence West 50.00 Chains thence
North 128.00 Chains
thence East 50.00 "
South 128.00 "
to the place of beginning containing 644
acres more or less according to a plat thereof
annexed & made by
King Willard
Registered
February 1852

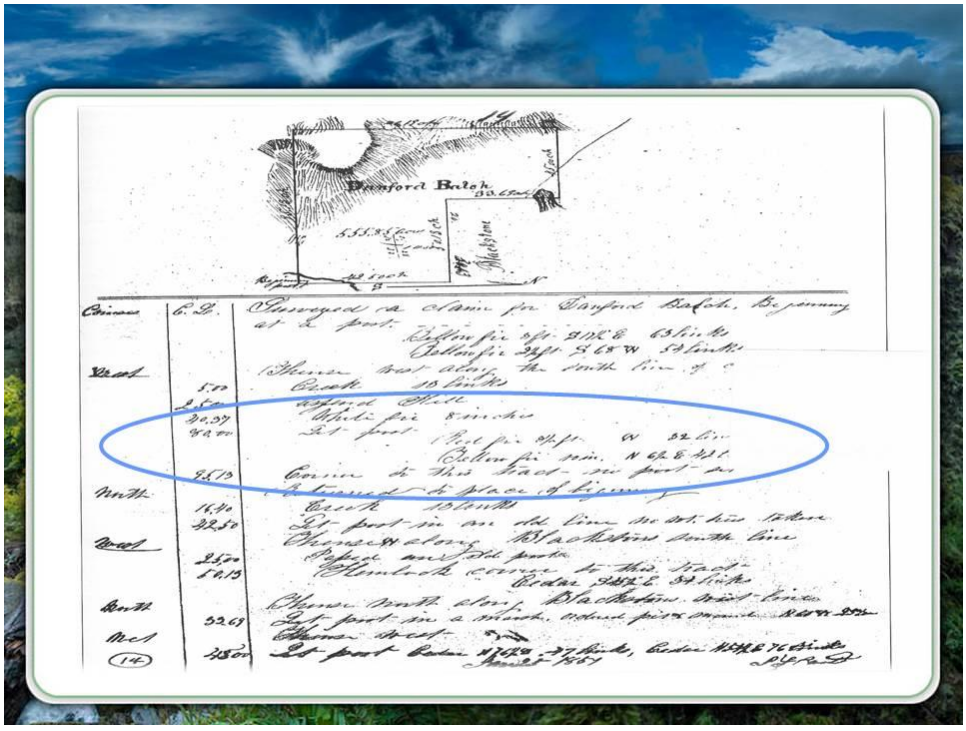
So it was filed after the rectangular survey was done on the ground, but prior to the official approval of the rectangular survey.


in the TERRITORY OF OREGON, hereby give notice of my claim to a DONATION of 644 acres
of land, known and designated in the surveys and
plats of the United States as the
a part of Sections 16. 17. 20. 21 & 29 in T. 7 S. R. 1 W. particularly described as
follows, viz: Beginning at a stake 10.00
chains East and 7.50 chains South of the S.E.
Corner of Section 20. T. 7 S. R. 1 W. running
thence West 50.00 chains thence
North 128.00 chains
thence East 50.00 "
South 128.00 "

Beginning at a stake, that tells us that there was a survey, a preliminary survey already done and now the deputy surveyor is going out and he is finding a stake that was set in the preliminary survey.

We will also notice that in this notification we have distance, bearing and distances. All of this information is contained in the notification and this is what the deputy surveyor will use when he eventually goes out to survey the claim.

King Hubbard happens to be one of the earliest settlers in this area. He had one of the earliest rights, but the notification does not necessarily establish that right. It was the way that the Surveyor General established for beginning to put together a record of which all is out there, when they arrived, and what land they have actually claimed.

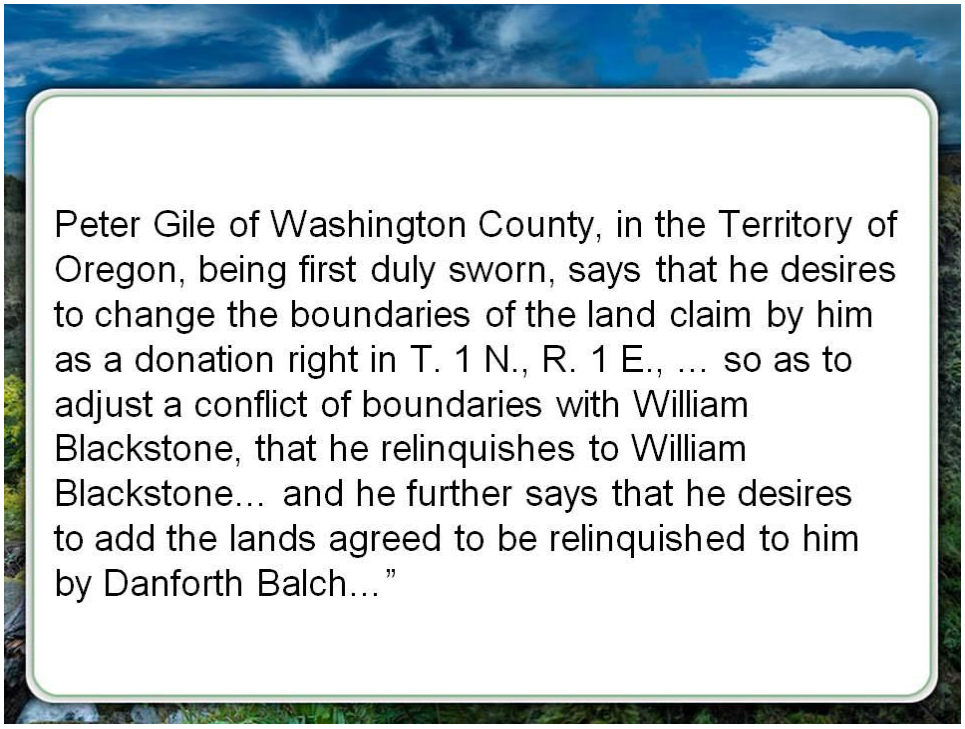


Here is an example of a preliminary survey and you can see it is extensive.

There is a diagram, there are field notes, and down here, there is actually a corner post and bearing trees.

So this was not just a shotty survey, this was an extensive survey to monument and mark the corners of this claim. This is what was filed with the Surveyor Generals office then later it became the basis for the survey. Now, this is taken from a document found in the records and is very common.

Peter Gile, of Washington County, in the Territory of Oregon, being first duly sworn, says the he desires to change the boundaries of the land claim by him as donation right in 1 N., 1E.,….so as to adjust a conflict of boundaries with William Blackstone, that he relinquishes to William Blackstone…and he further says that he desires to add the lands agreed to be relinquished to him by Danforth Balch…"



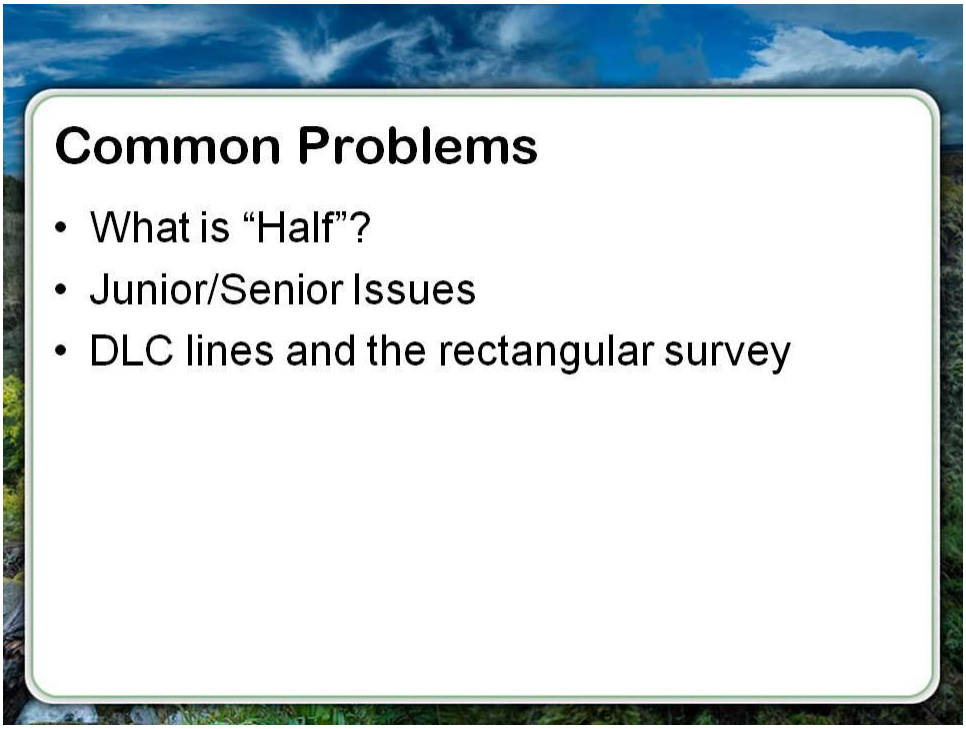
Didn't say that name very well, but anyway, here is a property line adjustment, here there are some conflicts, there are some overlaps, there are some gaps.

The Surveyor General obviously has come in here and said, "Hey, you guys need to adjust your boundaries so there are no overlaps and no gaps." They formally did this, there is an adjustment, and when you look at these, and I will show an example soon, this is not just a minor adjustment where they move 10 feet here or 20 feet there.

Sometimes these adjustments are a quarter of a mile; these are major type adjustments in some situations. The Surveyor General was out there actively working with the early settlers to get all these boundaries agreed upon, so that then they could be surveyed.

Common Problems

Some common problems include what is half. Remember husband and wife, half to the husband, half to the wife. That can be a problem and we will look at that in just a minute. Junior/ Senior issues, as we've looked at all of these dates and the example that Roger and I talked about in the beginning, it begins to become very fuzzy as to who has junior rights, who has senior rights, and what those rights are actually based on.



Next one, DLC lines and the rectangular survey, because the DLC claims were overlaid onto the rectangular survey, a new plat was made showing the DLC claims in relation to the rectangular survey lines, there's issues and we're going to look at what some of those issues are, and discuss how they need to be dealt with. Let us start with what is half. I just have a short exercise for you to work and we are going to look at what is half of this William Wilson donation land claim.

Exercise 1

Donation Land Claims Exercise #1

The patent for the William H. Wilson claim reads: "The North half to Mary J. Wilson wife of William H. Wilson and the South half to William H. Wilson".

1. Where would you place the dividing line between the North half and the South half of the William H. Wilson claim?

2. Why?

Things to consider:

- This patent was written in the 1850's. What was the intent of the Government?
- How would it have been interpreted in the 1850's
- What does the law say?
- Is there a correct answer?

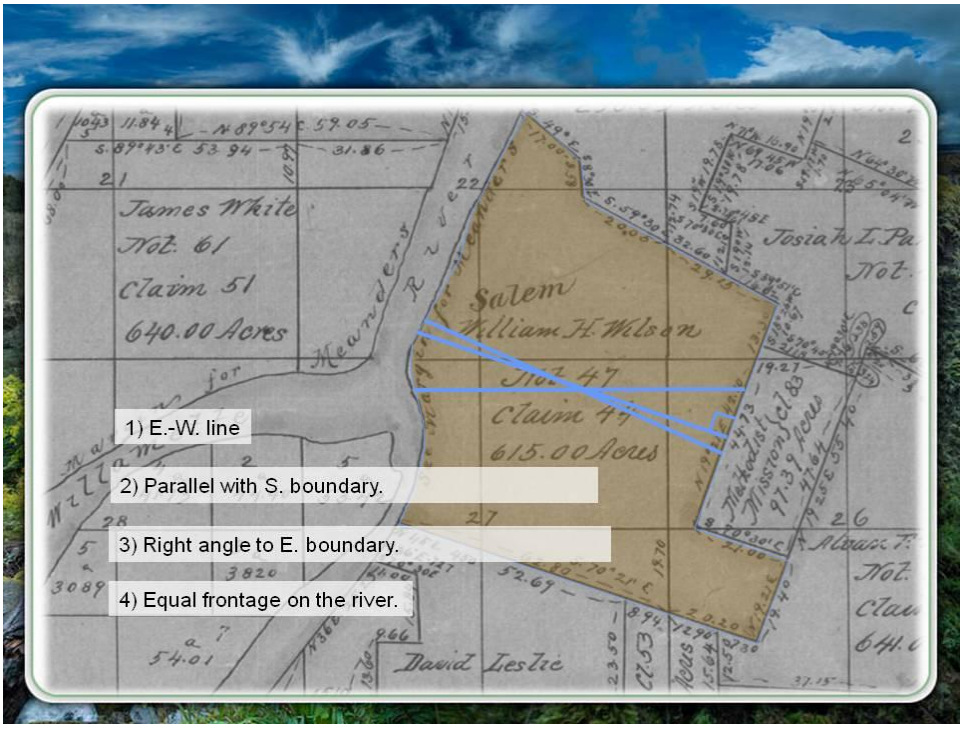

James White
Not. 61
Claim 51
640.00 Acres
Salem
William H. Wilson
Not. 47
Claim 44
615.00 Acres
Methodist Mission Cl 83
97.39 Acres
David Leslie
Willamette
Meanders
Margin for

Donation Land Claims, Part 2

What is Half?

Now that you have finished that exercise, let us discuss it. First, the patent said the North half to Mary J. Wilson, wife of William H. Wilson, and the south half to William H. Wilson.

There is not a lot of information there about what the intent was other than north half, south half.



So where would you place the line for the north half and the south half? Let us look at the plat a minute and see what we might, what some of the solutions might be.

First, a common approach might be an east, west line, just a cardinal line, east, west, that divides the area in half. There is equal area north and south of that line. Maybe a more logical in this situation might be parallel with the south boundary. That might be the most logical way to divide this into north half and south half.

Another might be at right angles to the east boundary and that is almost the same as parallel with the south boundary, I think it's about 18 minute different, but almost the same. Then the last one and maybe the best might be equal frontage on the river. What is a value here? It's river frontage. Now, some of the issues that we might look at let us just think about them.

This patent was written in 1850, what was the intent of the government at that time? What were they intending? Were they intending anything? What were they thinking? How would it have

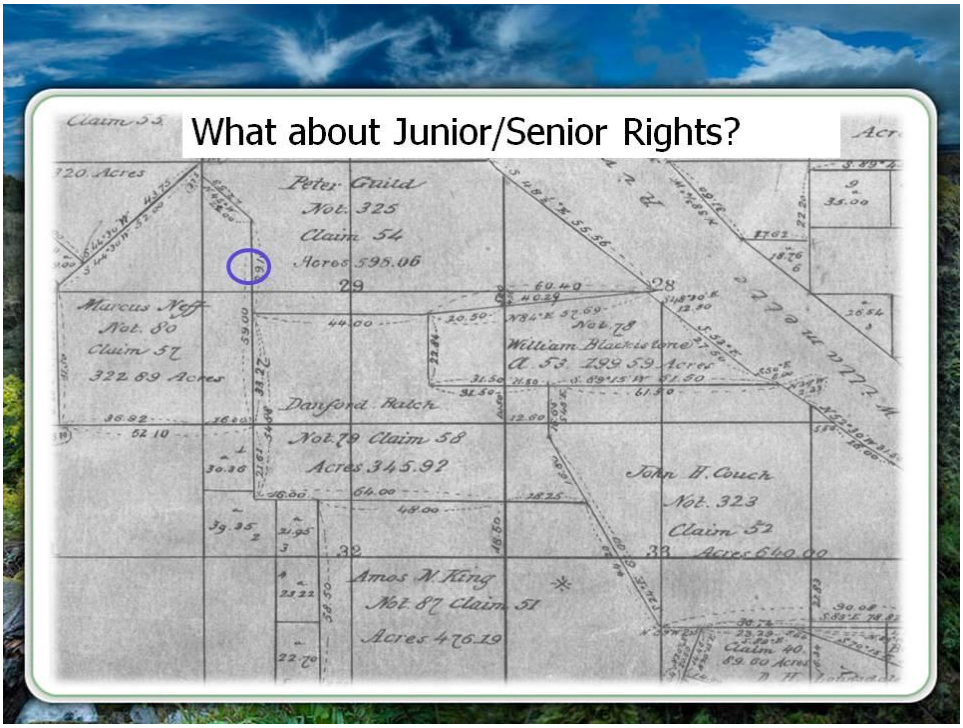
been interpreted in 1850? As opposed to how it might be interpreted today? What does the law say?

The law says, half goes to the wife, half goes to the husband. It could have been divided east half/west half, I think here it was north half/south half because of the river, they knew that value was attached to access to the river. Last, is there a correct answer? I do not believe there is a correct answer. There are several good answers. The correct answer normally is going to be found in seeing what has happened since that conveyance took place.

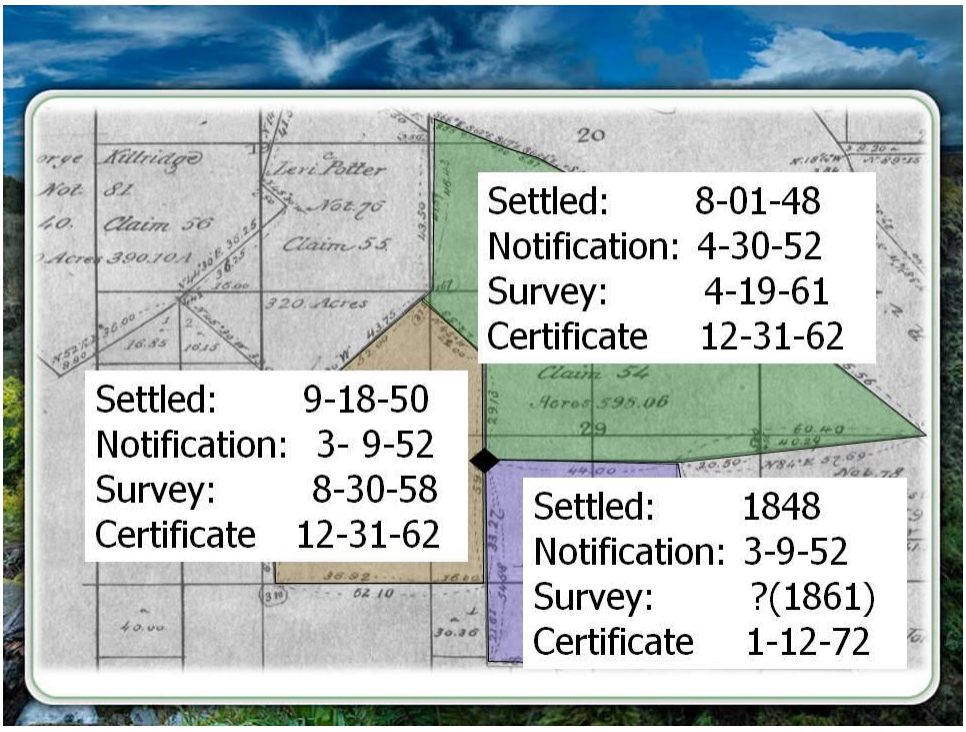
If that claim was conveyed somehow later, after the patent from the government, if the north half or south half was sold by that description, how was that interpreted at the time? Are there fences out there? Are there surveys? Local surveys that were done that show where that line might be. Are there roads or other evidence of where that line might be? There is no necessarily correct answer and fortunately, most of these claims were never actually conveyed later based on that description. So we do not end up with trying to decide what the north half or south half is, but sometimes we do and it can be an issue.

Junior/Senior Rights

Well, let us go on and look a little bit at Junior/Senior rights and how this may affect what is going on here. I want to look at a situation where we have several claims and were going to look at this corner here specifically which is the southeast corner of the Peter Guild DLC, which is also on the boundary of the Neff claim and it is a corner of the Danford Balch claim.



Let us just look at this and see what can happen and what kind of issues we can get here. Here are the three claims we are dealing with this is the corner we are dealing with.



I want to show you the information about these claims and this is not all the information this is just some of the basic dates that we are going to have to deal with that are going to show us what kind of problems we may have. If we look up here at the Guild claim, settled in 1848, the notification was 1852, the survey was 1861, and the certificate was 1862. We look at the Balch claim, settled in 48, notification was 52, survey in 1861, and certificate in 1872.

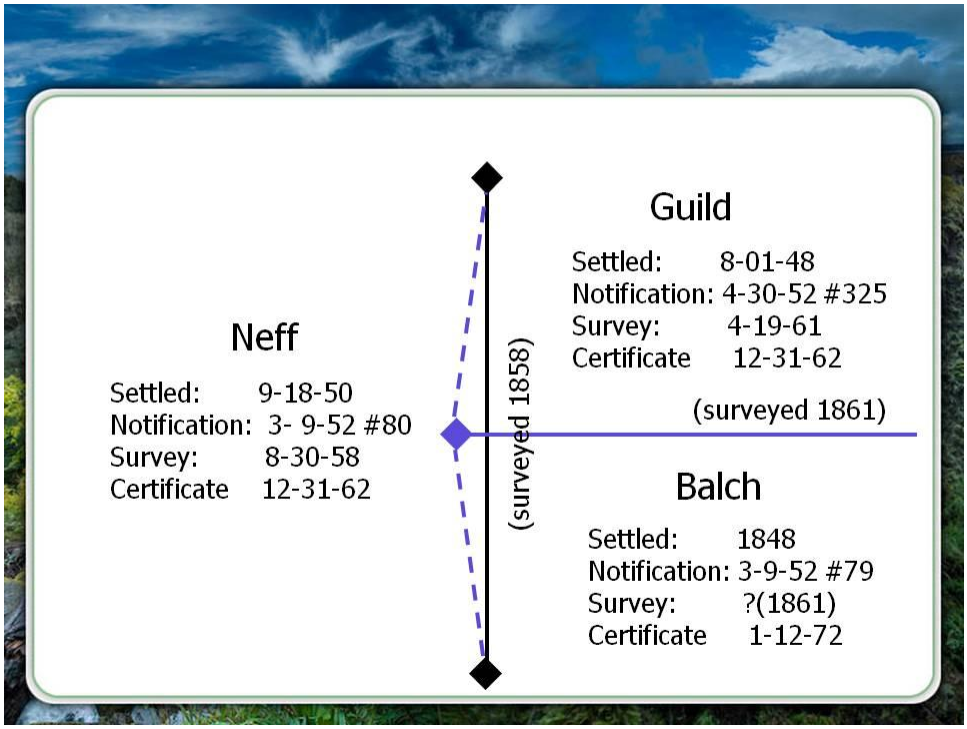
Now, let me say this certificate is actually the same as a patent date. The patents, they just could not keep up issuing all the patents, so they came up with a plan to issue patent certificates, it was as good as a patent. You were given a certificate, all you had to do is turn in the certificate and you would get a patent. Often times though it might be several years from the time a settler got a certificate for a patent until they actually turned it in and got the patent. The certificate date is really the date the land was conveyed to them and that document was really as good as a patent.

Now, so let us look at the Neff claim settled in 1850, notification is 1852, survey 1858, and certificate 1862.

So the first two to be settled were the Guild and the Balch. The patent dates or the certificate dates for Guild and Neff are the same.

So how do we go about dealing with this if we have some kind of an issue?

So we find this claim corner not to be on a straight line between the or not to be on the Neff boundary and remember which was surveyed first.



The Neff claim was surveyed first, 1858, so that line, the east boundary the Neff claim was there when the, the corner of the Guild and the Balch claim was surveyed. Now we find it not to be on the line. It encroaches into the Neff survey, or into the Neff claim. How do we deal with that issue? When we also look at this and we find out, if we look at Guild, who go the first certificate? Well his certificate and the Neff certificate were the same date. So one had the first survey but by the time the patent certificates were issued, that corner was there and that plat was approved and it was on the ground.

We begin to have, to see, that you cannot just look at the patent date or just look at the survey date. How are we going to resolve this? This might be as little as one or two feet, maybe, into the Neff claim. It might be as much as twenty or thirty or forty feet into the Neff claim. These are old surveys, this is 1850's, this was not easy surveying country, this was swamp and brush and this is an **Allimate Valley**. It was raining; it was not easy surveying country, so there could be some large discrepancies, and for the most part the DLC surveys were very good. So we have one line that was surveyed in 1861, we have another survey in1858, and we have a corner that is not on the senior line. What are we going to do with it?

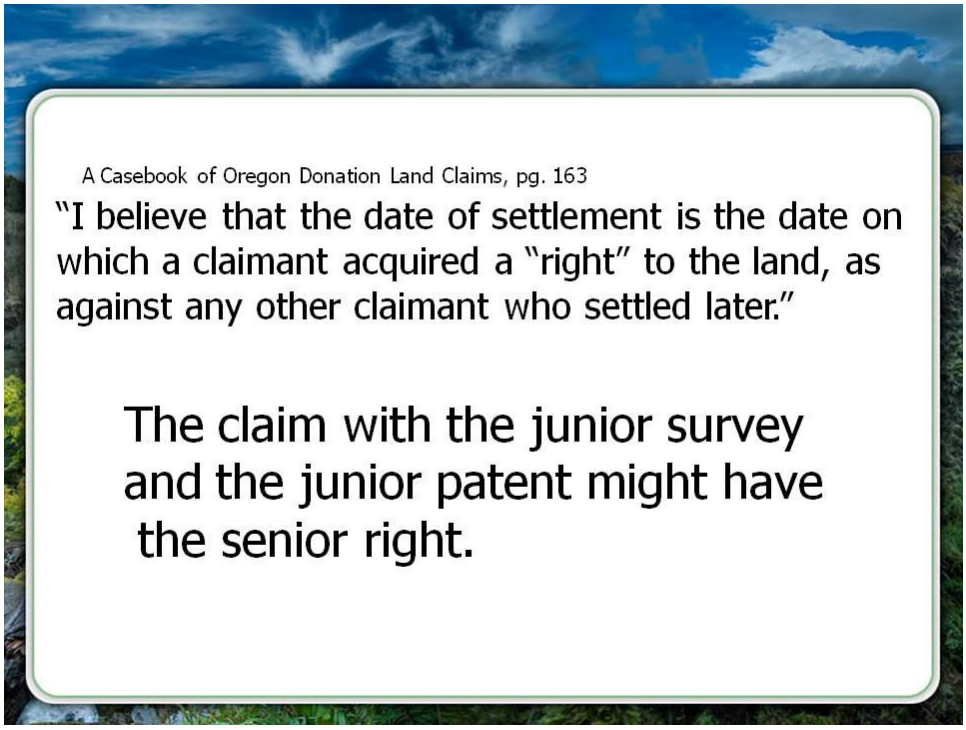
If we think about what happened here, think about what happened. How are we going to decide? Now remember these folks, all settled and they had to have a survey if there were overlaps or gaps they had to adjust their claims. If they had too much land, many of them when they had their final survey done, they had more than 640 acres claimed. They had to adjust their claim to get to the proper acreage. When all that was done, often times there are property line agreements.

Remember I read that one to you. So one of the things we would look at, we would say first of all, did these three settlers, have some kind of a property line adjustment where they agreed to a common line, and if they did how did they then treat this corner on the Neff line?

Did the three original settlers treat that corner as a common corner for all three and basically bend the Neff line through that corner, and what you're going to find for the most part when you have evidence is, that they did. If you think about what was going on, the Surveyor General is actively involved in helping these people settle any issues they have with boundaries.

The Surveyor General is sending surveyors out to survey. The deputy surveyors are the one who set all of these monuments. The plat, they often show up on the same plat, not on the original rectangular plat, but on the DLC plat, and in this case, we have patents that we issued at the same time. So to try and begin to build some kind of senior rights/ junior rights issue, and deciding who owns that can be very difficult when the reality is for those early settlers that was looked upon as just a corner of their property and a slight bend in the Neff boundary due to some technical errors in the survey.

It is not going to be a big issue, and so normally a corner of this type will still be held, it will be held for all the corners and there will be a slight bend in the Neff line. This is from the DLC book that I showed you written by Al White, he says, "I believe that the date of settlement is the date on which a claimant acquired a "right" to the land, as against any other claimant who settled later." So the date of settlement, and what he is saying is you cannot, you have no right against the government.



When you settle, when these people settle before there was the Donation Act, there was no legal way for them to make a claim of land against the government.

The government had not given them any right there was not a homestead entry; they could not do cash entry there was nothing. By settling what the government did, is they did recognize that the first person there had a right ahead of anyone else at the time that the government finally did come up with a system for a settler to gain that land.

It just put you in line, and what he is saying here is the date of settlement is how we decide where in line you are for this piece of property. If there is some kind of an overlap between two claims, and one claimant was there in 1846, one claimant was there in 1850. The one in 1846 has the senior claim. The Surveyor General in resolving these issues I am sure looked at that date, who was their first? In resolving claim boundaries and taking care of the overlaps that obviously were there. Now, because of this, and because of the way the system worked, we have claims that with the junior survey, and with the junior patent and we have already seen a couple of these, that actually has the senior right.

Now, in normal situations, if you have a claim that has the senior survey and the senior patent, it is going to have the senior right. In this situation, we have claims that are going to have the senior right that actually have the junior survey and the junior patent. So again, it complicates the issue when we are trying to deal with any kind of overlap or gap, apparent, because I do not think they really are but where a later donation claim corner is not exactly on one of the early surveyed lines.

I want to take you now to exercise number 2, because there are other issues with the placing of DLC corners. One of those issues is the relationship to section line, when a DLC corner is supposed to be on a section line, what do we do? So I want you to take a few minutes, work through exercise 2, when you finished it come back and we will discuss it.

Exercise 2

Donation Land Claims Exercise #2

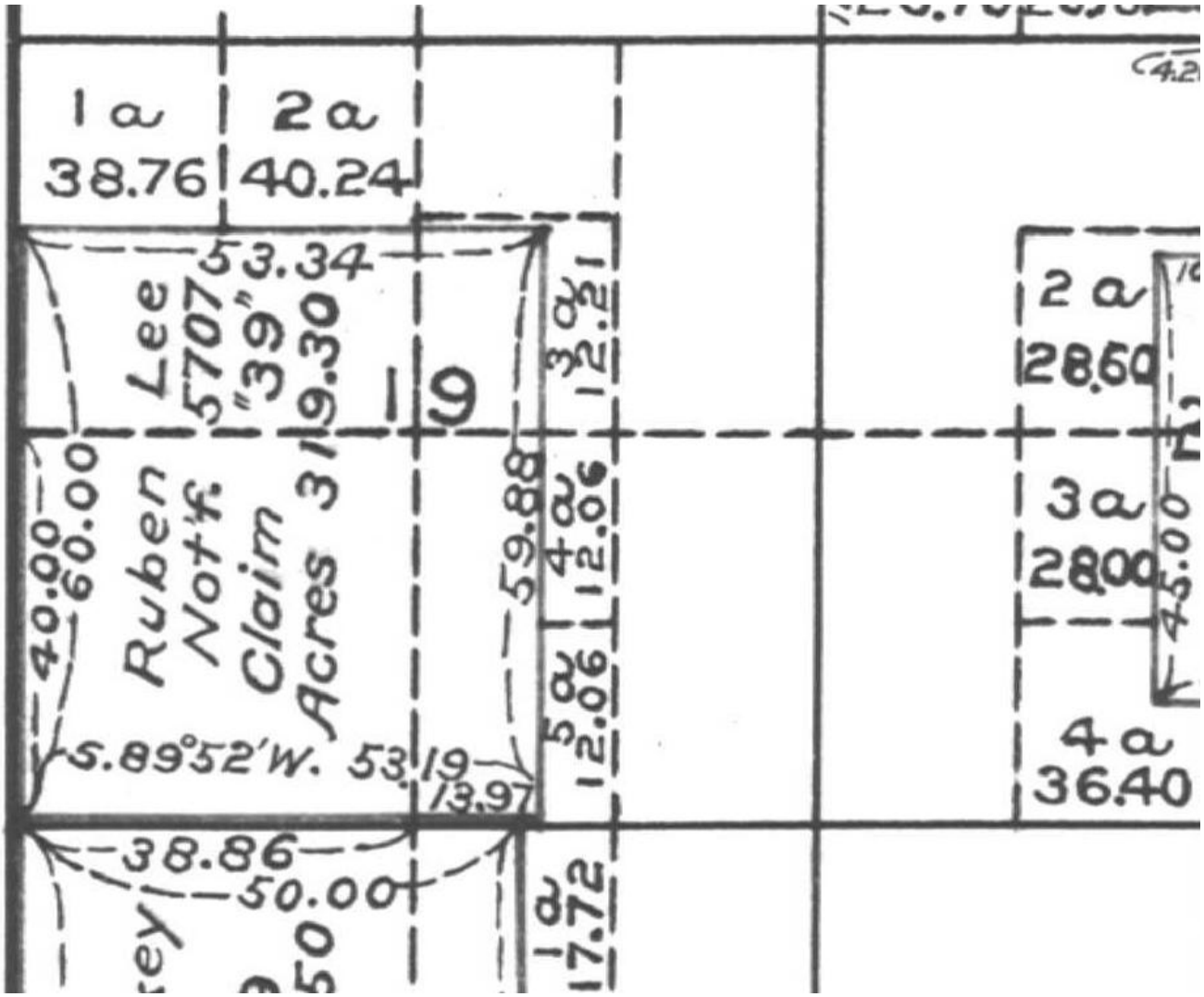
The survey of the Ruben Lee claim established the SE corner of the claim on the south boundary of section 19 but the plat does not show a tie to the corner of sections 19, 20, 29 and 30.

You find the original SE corner of the DLC, the ¼-section corner of section 19 and 30 and the corner of sections 19, 20, 29 and 30. The DLC corner is 5 ft. south of a straight line between the ¼-section corner and the section corner. You must decide if the section line goes through the DLC corner.

1. List 5 things you would consider in making your decision.

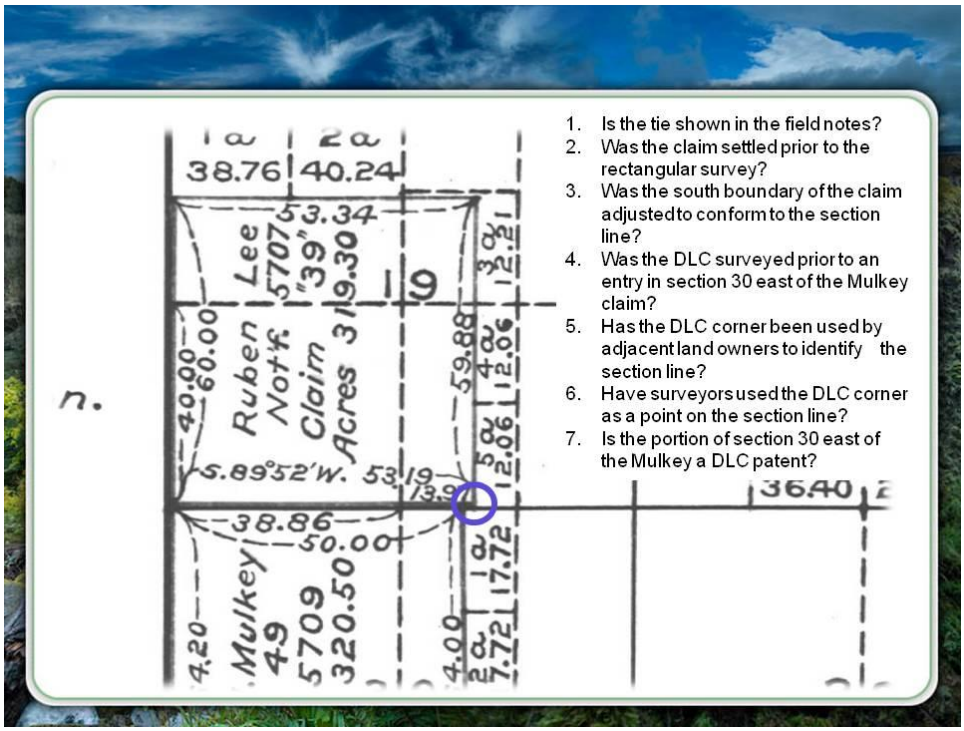
1	
2	
3	
4	
5	

2. If the DLC corner is lost, how would you reestablish it?


1 a
38.76
2 a
40.24
Lee
5707
"39"
Ruben
Notice
Claim
Acres 3
19.30
53.34
19
3 a
12.21
59.88
4 a
12.06
5 a
12.06
40.00
60.00
S.89°52'W. 53.19
13.97
38.86
50.00
1 a
17.72
2 a
28.60
3 a
28.00
45.00
4 a
36.40

Donation Land Claims, Part 3

Now that you have completed Exercise 2, let us discuss it. As we look at the plat, what we are talking about is this southeast corner of claim number 39 and on the plat, it is shown as being on the section line. There is a tie on the plat to the quarter corner. What I want to know is what kind of considerations are you going to use in deciding if that section line would actually go exactly through that donation land claim corner because it almost certainly will not be exactly on line between the found section corner and quarter corner.



Are you going to run your line through that donation land claim corner or not and how are you going to decide.

So let us look at a few things. First, is the tie shown in the field notes? Obviously here it just shows, it's not shown on the plat but let's check the field notes, always check the field notes along with the plat, and in donation land claims, almost certainly it is not shown in the field notes either, but always check that.

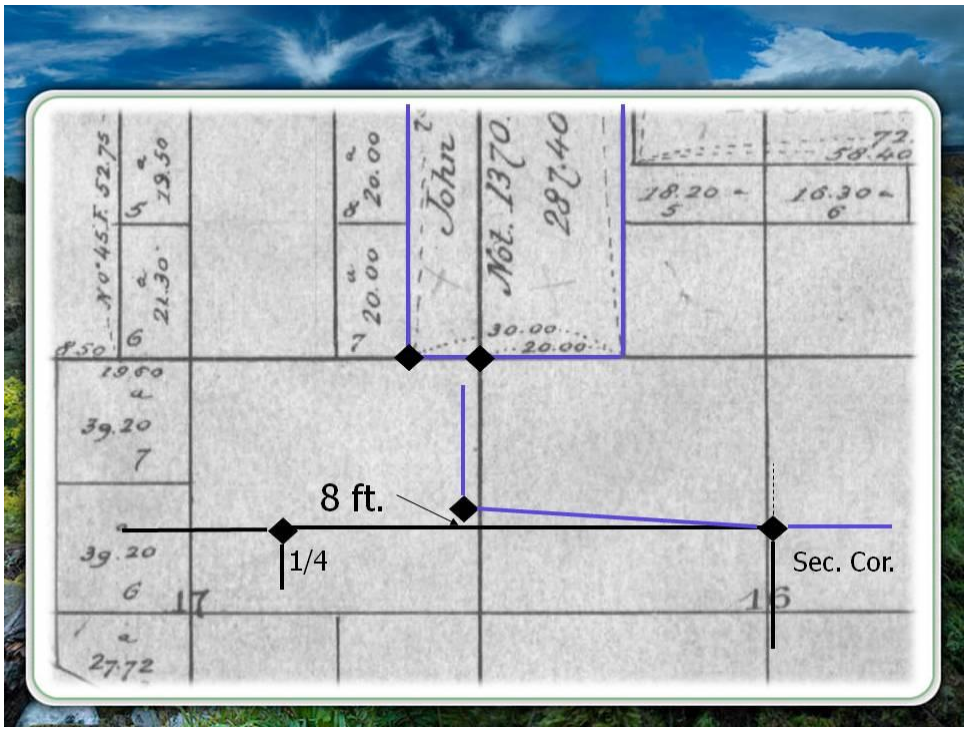
Next, was the claim settled prior to the rectangular survey? Now again if we have this metes and bounds type survey that we do, it almost certainly will settle prior to the rectangular survey. You want to check to make sure we understand that we have all the facts correct. Next, was the south boundary of the claim adjusted to conform to the section line? If you think about locating a claim before the rectangular survey was there, what are the chances that they would get the line exactly on the section line?

So almost certainly these two claims claim 49 to the south, and claim 39 and I guess it is to the north. There was some kind of adjustment up to the section line and we are down to the section line to get that common boundary so there was some kind of an adjustment to get onto that section line.

Next, was the DLC surveyed prior to an entry in section 30, east of the Mulkey claim? In other words, I am talking about this area just south of the Ruben Lee claim, and its one down there. Was there any kind of a claim filed there? So is there any kind of right of basically east of the Mulkey claim? Because if there was a right east of the Mulkey claim, when was that right established? When was the patent certificate issued? All of those issues come into play because this corner affects that boundary, so we need to know the status of section 30 down there, and specifically that area east of the Mulkey claim.

Next, has the DLC corner been used by adjacent landowners to identify the section line? That is an important question because what are we doing here? We are trying to survey the boundaries, land, so people can use their land. This is a hundred and fifty-year-old survey, if people have been using the Donation Land Claim corner as a point on the section line for a hundred and fifty years, who are we to come along now and change that decision?

Have surveyors used the Donation Land Claim corner as a point on this section line? What have surveyors been doing on there? Not just land owners, but what have surveyors been doing? Are there any surveys that show that point on the section line? If you were to look in the Portland area, which is almost all donation land claims, you will find that where they coincide or where a corner falls on a section line, usually that section line is going to bend through that donation land claim corner.



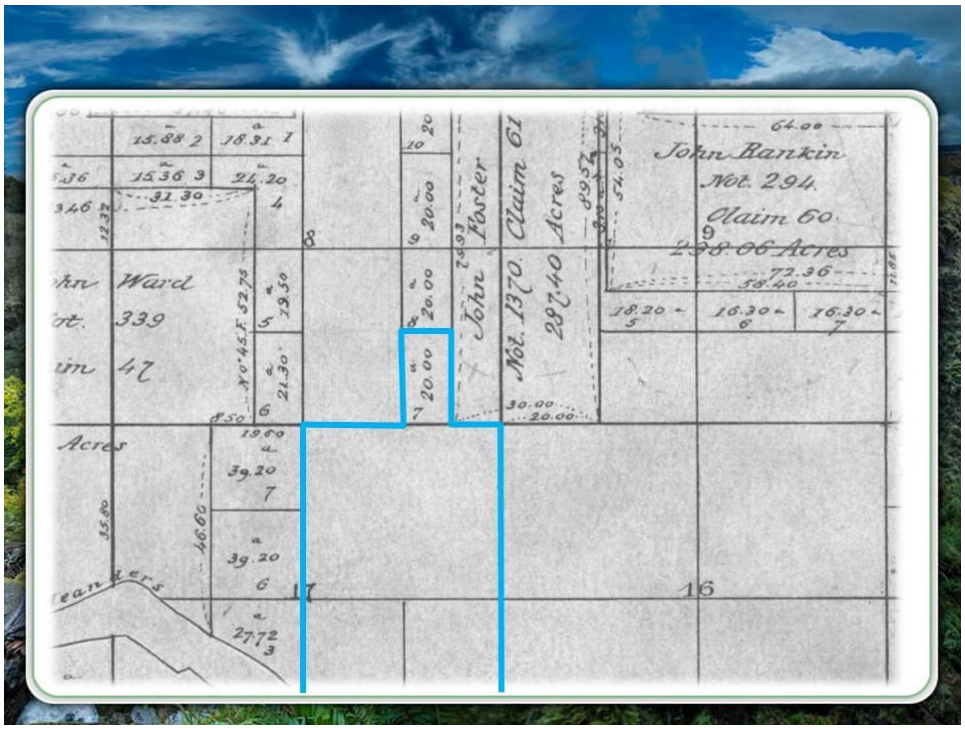
Mainly because that area is an area that was developed very early on so we have a lot of surveys and resurveys and the land claims were divided and lots of development going on early on, when a few feet off from the line was not a big issue, so you'll find that up in that area.

Last, is the portion of section 30 east of the Mulkey claim, a DLC patent? It may be a DLC patent; it may actually be the first settler that was in this area. That, that could be a DLC claim from a settler that was there in 1846. Just happened to conform to the rectangular survey because he could.

So that area even though it does not show DLC on the plat, because it is not a non-rectangular one, it was conformed to the rectangular survey. It could be the oldest senior donation land claim in this area. You do not know it, you do not think it is because it is an aliquot part claim, but it very well could be.

You would have to go to the records to find that out. I would look at those issues. I would be very hard pressed to take the line any place other than through that corner. We are going to talk about another situation and we will see it may shed some light on this.

First I want to talk about a similar situation where we have a claim line, we have this metes and bounds claim, and we have the claim line surveyed and we are going to talk about the southwest corner of this claim. Now there is a tie to the quarter corner, and we find that claim corner 8 feet off the line and now we have a gap instead of an overlap. So now, we have a gap not an overlap. So let us look at this situation a little closer.



The area I have outlined is a donation land claim, and it is a donation land claim that was conformed to the rectangular system. So here we have a two donation land claims, and if we

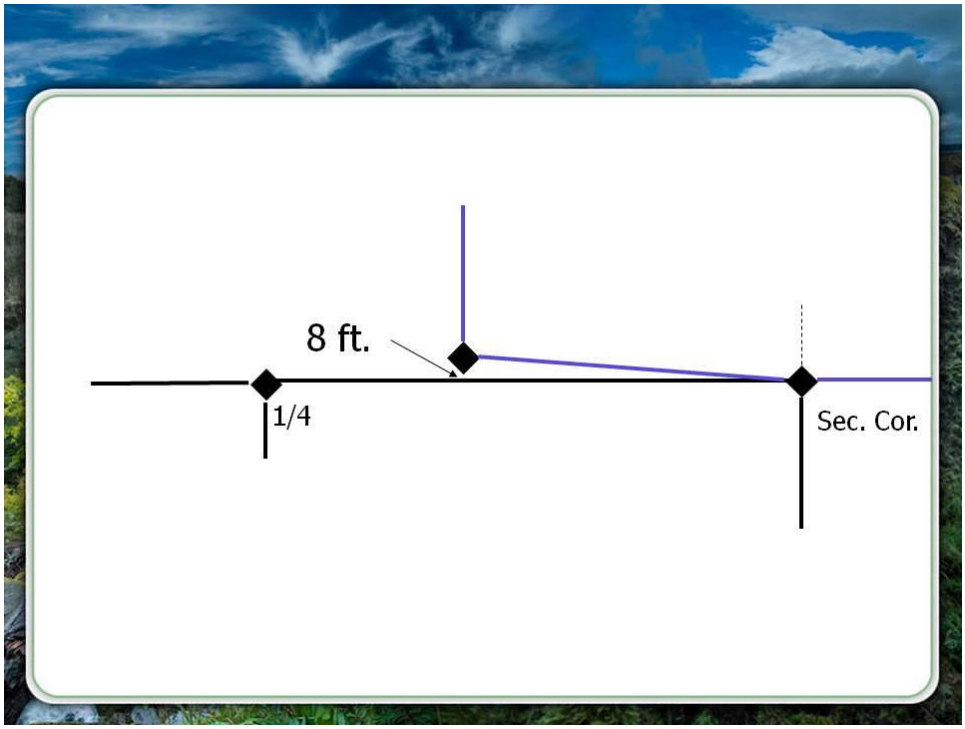
survey a straight line between the section corner and the quarter corner, we end up with a gap. We need to look at this and decide how we are going to deal with that.

Well, what are we going to do with this 8-foot or this sliver? It really creates a sliver along the south boundary of the claim. Remember one of the issues that the Surveyor General was dealing with is we didn't want any overlaps or hiatuses, we don't want any gaps so the Surveyor General was taking care of all that before survey, wanted to make sure we had common boundaries out there, everyone agreed to the boundaries, there were no gaps or overlaps.

So in the Surveyor General's scheme this isn't happening, there isn't' a gap or an overlap so this is created really because of a, maybe a technical different in measuring, we just could not survey that well at the time.

Now I want to take you a few minutes and do another exercise and this is similar again, our third exercise, take a few minutes and look at this and I'm going to come back and talk about this and kind of wrap up that part that I was just talking about with the section lines.

So we will look at this one and take a few minutes, come back, and we will talk about it.



Exercise 3

Donation Land Claims Exercise #3

The Miles McDonald DLC, located in sections 6 and 7 is shown on the portion of the original plat shown below.

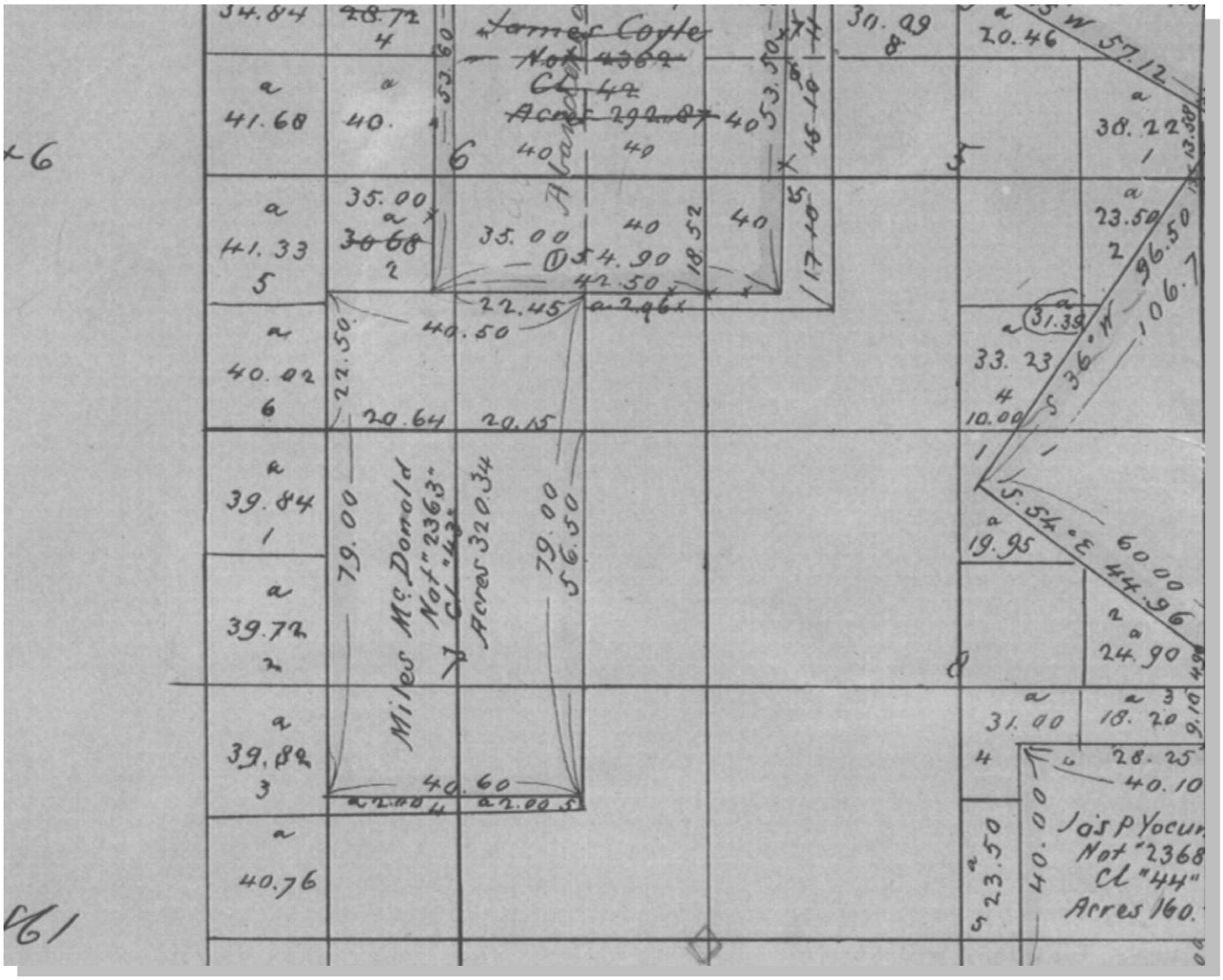
1. How was this claim tied to the rectangular survey?

2. The distance "22.45" along the north boundary of the claim is from the NE corner of the claim to?

3. Lots are shown along the south and west boundaries and a portion of the north and east boundary. Why are no lots shown along the majority of the east boundary?

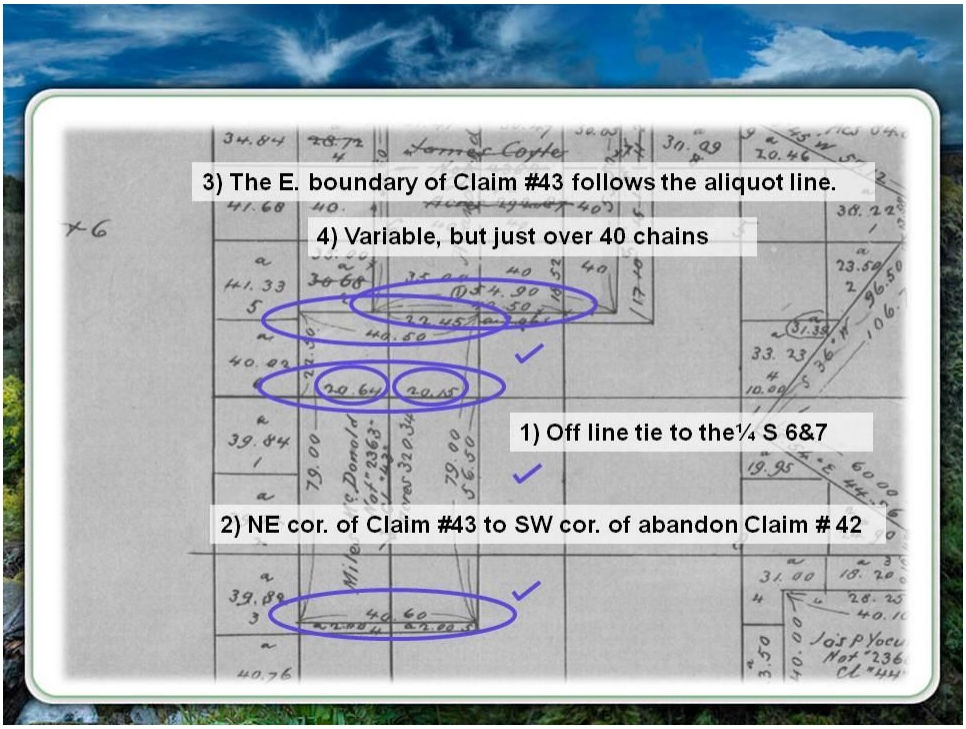
4. How wide is the claim E-W?

5. If the NE cor. of DLC # 43 is lost, how would you reestablish it?


James Coyle
Not 4362
Cl 42
Acres 290.07
Miles McDonald
Not "2363"
Cl "43"
Acres 320.34
Jas P Yocum
Not "2368"
Cl "44"
Acres 160.

Donation Land Claims, Part 4

Well now that you have completed that Exercise, let us just spend a few minutes and discuss it. We had five questions to answer here, about this claim. We will just take them one at a time.



First, question, how is this claim tied to the rectangular survey? Now, the claims were platted onto the rectangular survey plats, so there was always, when I say always, you know usually, and I think probably like 99.9 percent of the time a tie to a rectangular corner. That is how they were platted onto the plats, however sometimes there was only one, sometimes there were two, as we look at this survey plat, where was the tie?

In this case, there was only one. It was right here, at the quarter corner, and it's an off line tie along the line between 6 and 7 to the quarter corner, and that is the only tie and so the whole claim is being positioned on this plat by a tie to one corner. There is no tie to any of the section corners; it is simply placed this way. Well, how accurate do you think the relationship between the section corners, the section lines, and the subdivision of section lines are? When there is only a tie to one corner in the rectangular system. Let us look at the next question.

All right, let us look at the second question now. The distance 22.45 along the north boundary of the claim is from the northeast corner of the claim to what? This distance up here of 22.45 what's it to? I really just put this on here because it is important to really read the plat carefully and look at the distances.

It appears that it is to the center south 16th of section 6$^{th.}$ When you look at the numbers, add them up, and really examine it, it is clear that the distance is actually to the southwest corner of the abandoned claim number 42. It is not the center south 16th, it is the southwest corner of that

abandoned claim. Just a note to really, when you are looking at the plat, take your time; make sure that the information is correct, that you think you are seeing.

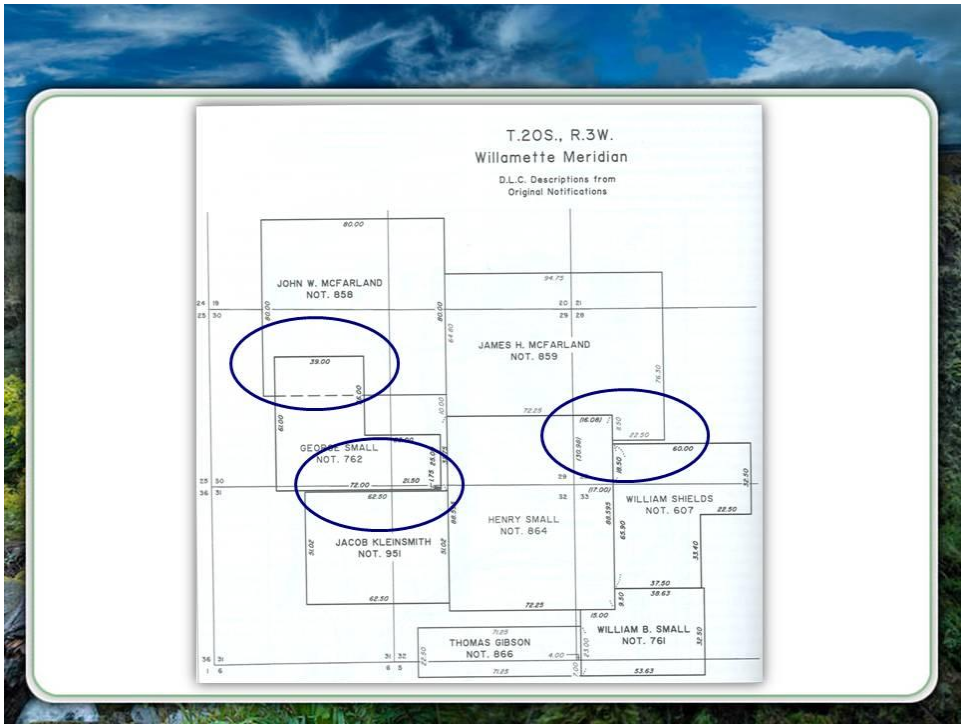
Ok, the next question. Lots are shown along the south and west boundaries and a portion of the north and east boundaries. Why are no lots shown along the majority of the east boundary and we are talking about these areas here. Their shown as aliquot parts, why are no lots shown there when every place else there are? Well the answer is because it, the claim line follows the aliquot part line.

Now, there's a problem here and that is the donation land claim surveyor never subdivided the section, and just an examining the donation land claim plats it seems to me that the Surveyor General had sort of a rule of thumb. If by calculation the DLC line, was within sometimes it appears to be 80 links and in other places 50 links, but if it was in within 80 or 50 links of the calculated position of the subdivision of section corner, they showed them as common without ever subdividing the section.

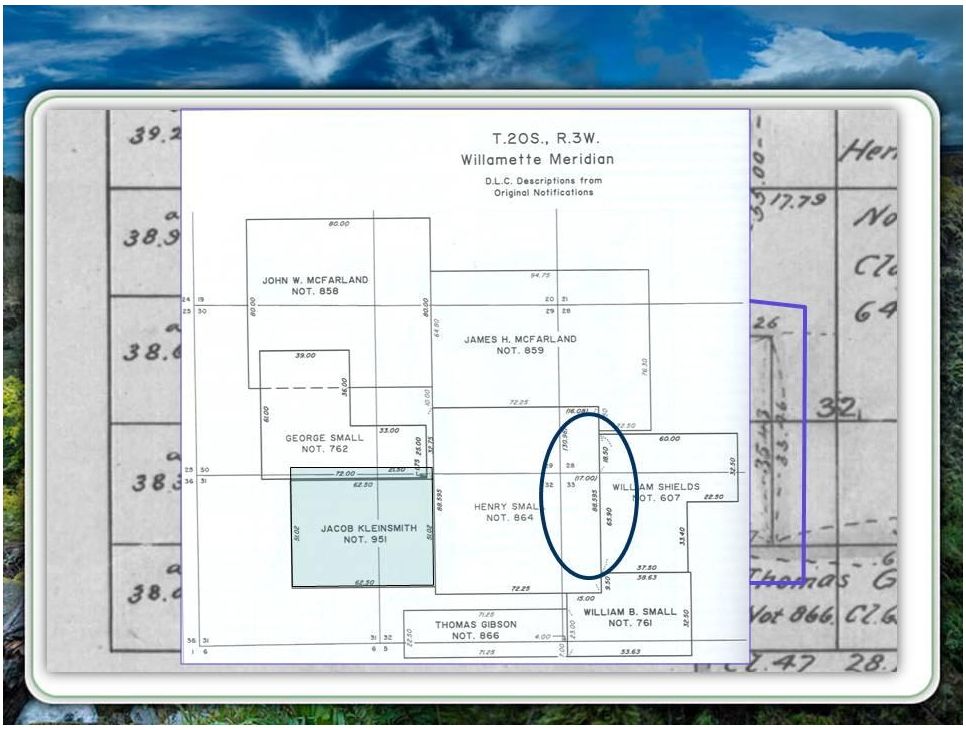
Here we have a DLC line that on the official plat is shown as being the same as a subdivision of section line even though the section was never subdivided on the ground.

That can cause some problems and we'll look at some of those issues as we go along today, but any time there is not a lot on that other side, what the plat is telling you is it follows the aliquot part line, even though the section was not subdivided.

The next question, how wide is the claim east/west?

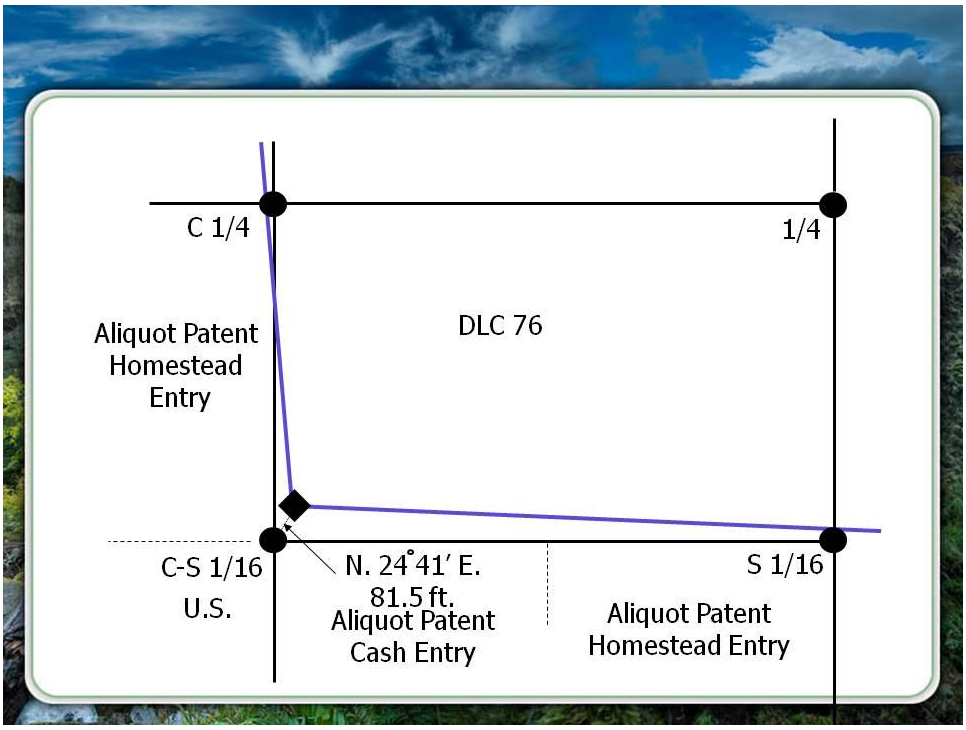


Well, we have various widths. We have 40, 60 on the south boundary, we have 40, 79 along the section line, and we have 40, 50 up here on the north, that is just because of misclosure.



There is no issue with the boundaries; the east boundary and the west boundary are still shown as straight. That is just the accuracy, the surveyor and their survey and there is some misclosure in there. The claim is somewhere, you know, plus 40 chains wide.

So now, let us look at the last question, if the northeast corner of DLC 43 is lost how you would reestablish it? Well if we look at the plat, we will notice that that corner is shown on the plat as being on the north south centerline of the southeast quarter section 6. Remember section 6 was never subdivided. So how are we going to establish that corner point? We're going to talk about that in just a little bit and actually we've gotten direction from the solicitor's office, so we're going to look at something very similar to that, and hopefully give some direction in how that might be done.

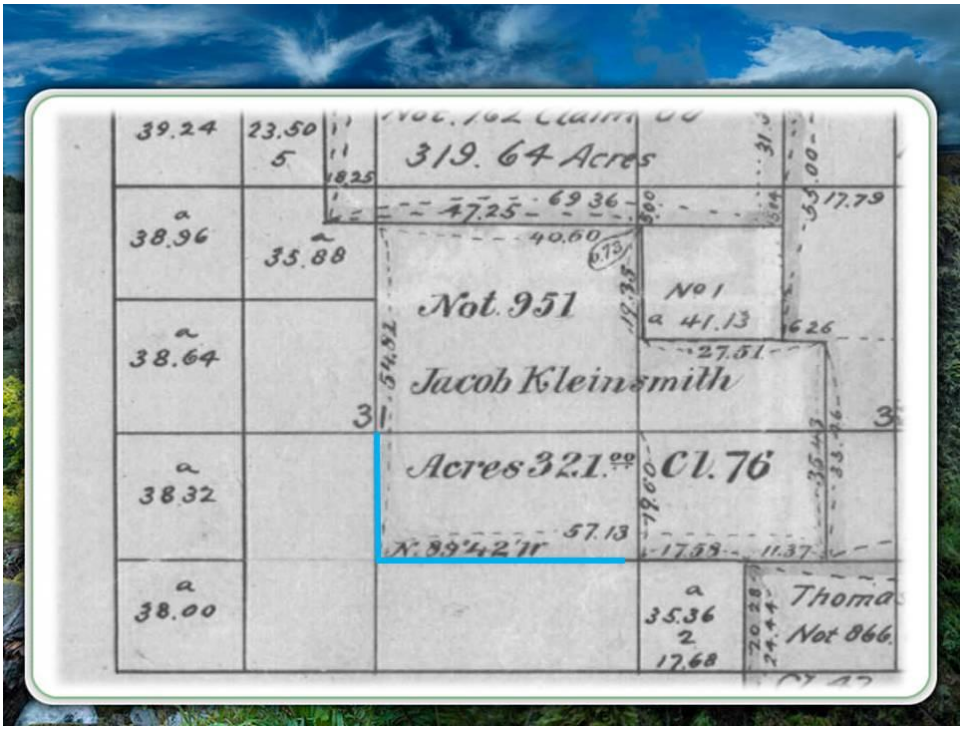


Now I want to look at another diagram. This diagram shows the notifications plotted. This is the information that the Surveyor General was given when the notifications were turned in with their preliminary surveys, and I want you to notice that there are some issues.

There is a gap down here on the south end of the James McFarland claim, that the Surveyor General is going to have to deal with, that has to be taken care of. There is an overlap up here with the John McFarland claim and the George Small claim, that is going to have to be dealt with and you notice that is not a small overlap that is a large overlap.

Down here there appears to be a slight gap along the south boundary of the Small claim. All of those put together, the Surveyor General would look at this, plot them, and then he would decide where the issues were and what issues needed to be resolved, where they needed to be some agreements between the owners before settlement could ever, or survey could ever take place. This is the kind of diagram that the Surveyor General would use to begin to resolve these various issues.

Now, I want to look at a specific claim. The Jacob Kleinsmith claim. We are going to talk about the southwest corner and when you look at this plat, it appears that it is common with the center south 16th of Section 31. Before we get there, I want to go back and look at the diagram that we just looked at.



Notice the shape of the claim. The Kleinsmith claim is a rectangle it is almost a square. Now this is the original shape and location of this claim after there were adjustments and agreements.

This is the shape of the claim so it was not just some minor shifting of a boundary a few feet here and a few feet there. It was often a major shift and major changes in these boundaries. So that everyone got their allotted acreage and everybody was satisfied with their claim. This was a major change here to this claim. Now, the main issue in this claim I want to look at though, is the position of the southwest corner. This is a survey BLM did years ago, here is what happened and how it was resolved.

First, I want you to notice that the distance from the quarter corner of 31 and 32 to the claim line, is 1960. The record for that distance is 20 in 1960, that's within 50 links of record. The Surveyor General when they created the plat they show the south boundary of the claim, as being common with the aliquot part line, even though mathematically it's not at the exact position of the aliquot part line, and even though the government or the GLO never subdivided the section. On the plat, it has shown as common with the aliquot part line. Now let us look some more, see what else we find. Well, when we did the survey, we found the southwest corner of the DLC and we subdivided the section. The ownership around it, we had some aliquot part patents, we had a cash entry, a couple of homestead entries and some land that was still federal, down in the southeast of the southwest. It was all private land adjacent to this boundary, the original donation land claim

corner did not fall at the same position as the center south 16th, and it was actually a considerable distance - 81 feet. Which when you think about it, is not surprising because the section was not subdivided.

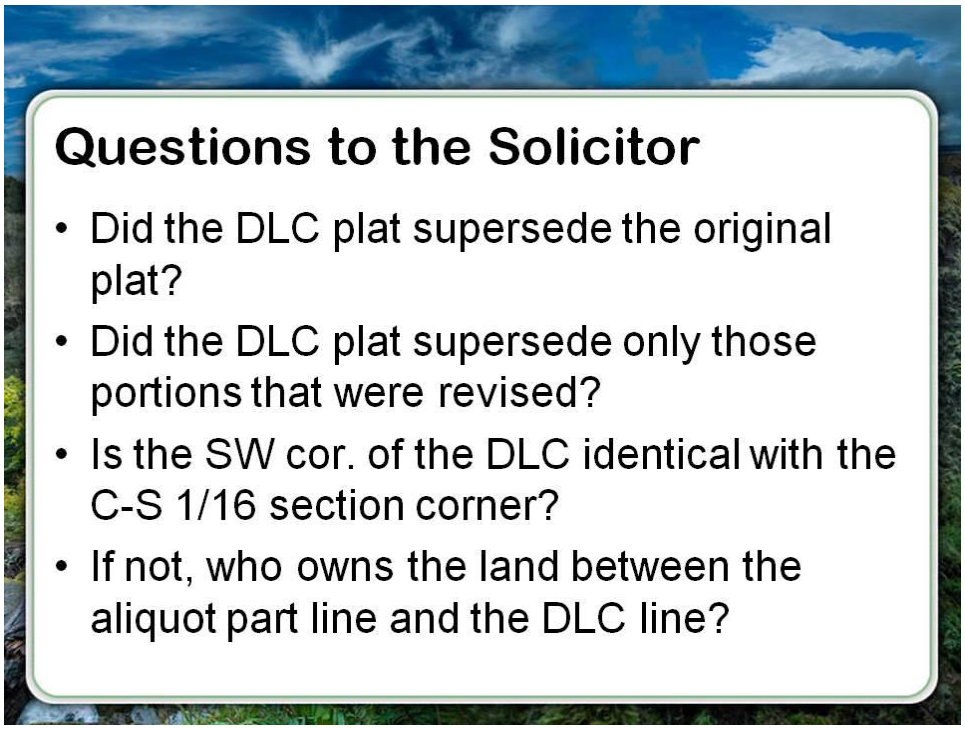
So how could you expect that DLC corner to be common with the aliquot part corner when no one subdivided the section? You would expect some kind of a discrepancy and 81 feet, you know that is not surprising. So, what do you do now? It is the DLC corner, the center south 16th. Is it not? If it is not the center south 16th, what do you do with the gap along that boundary? How do we resolve this?

Well, let us look back at the plat, this is part of the boundary we're talking about, the east west center line of the southeast quarter and a portion of the north south center line. What are we going to do there? Well, we submitted questions to the solicitor.

Here is what we asked the solicitor:

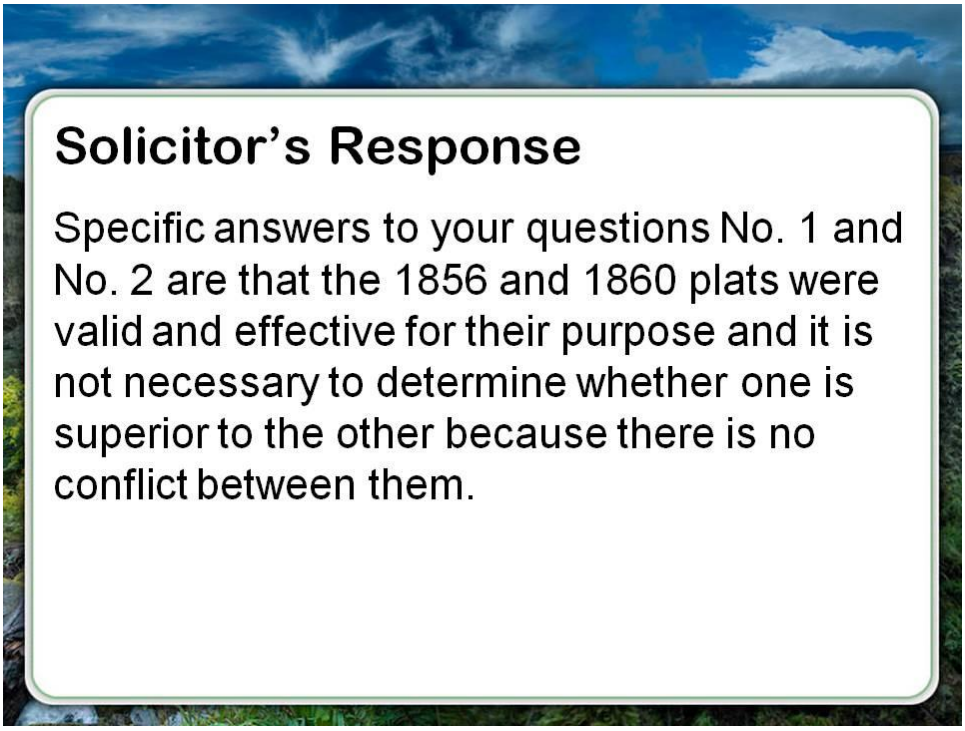
Did the DLC plat supersede the original plat? Did the DLC plat supersede only those portions that were revised because not all of the original plat was revised? Is the southwest* corner of the DLC identical with the center south 16th of the section?

That is the real key question. If not, who owns the land between the aliquot part and the DLC line?

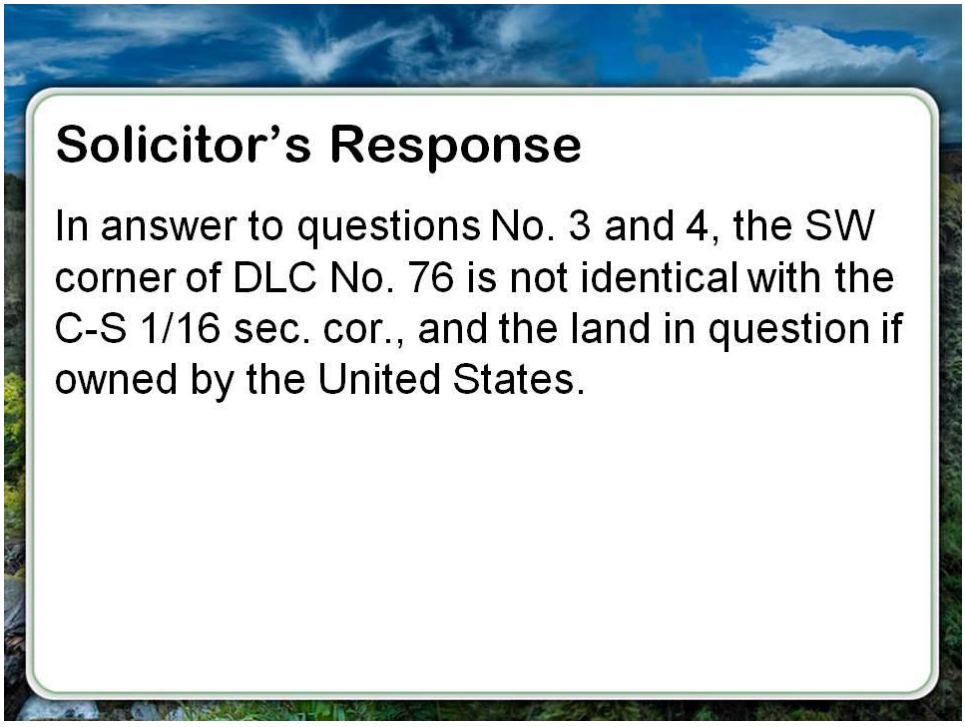


The solicitor responded with the specific answers to your question 1 and 2 are that the 1856, that's the rectangular plat, and the 1860 plat, that's the DLC plat, were valid and effective for their purpose and it is not necessary to determine whether one is superior to the other because there is no conflict between them. That is the answer to the first two. Now, let us see about the rest of it.

(* The instructor misspoke on the video by saying southeast)

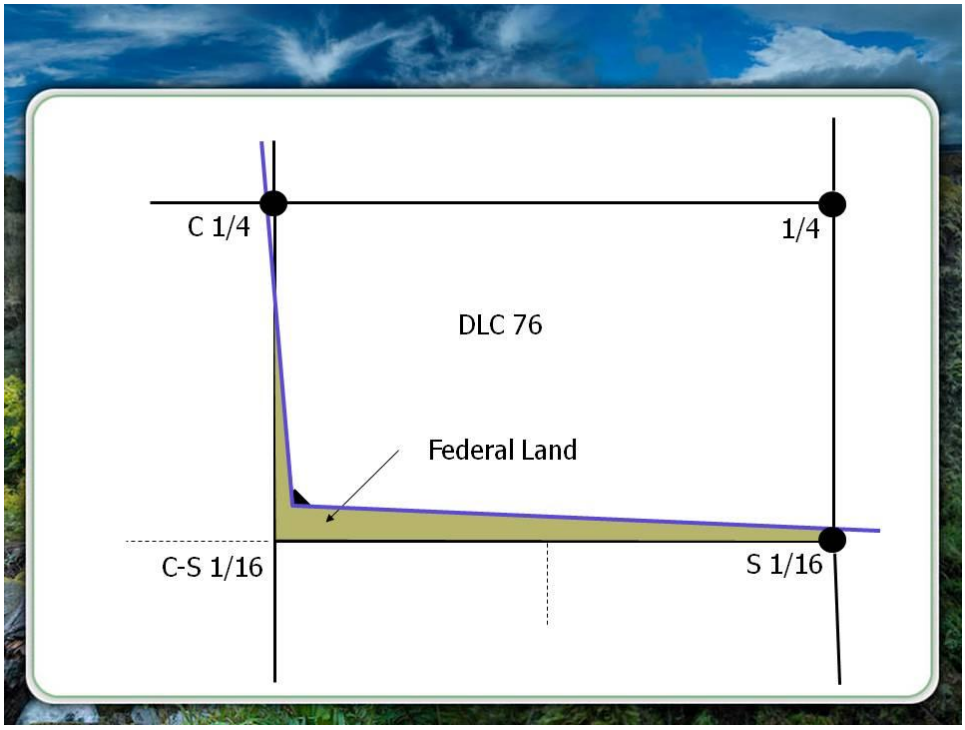


The answer to the next two questions, the southwest ***** corner of DLC 76 is not identical with the center south 16th section corner and the land in question is owned by the United States. The solicitor came back and told us the DLC plat may show that those corners appear to be common but if they are not common in fact then they are not. So what does that do?



(* The instructor misspoke on the video by saying southeast)

We have this gap, along the south boundary of claim 76 and along the portion of the west boundary, and the solicitor is saying that is federal land.



Now if you will remember the ownership it was private on both sides of both of those lines. This land was all private, and now we have done a survey and now there is a sliver of federal land. In the middle of all of this private land, and of course it is not just vacant land out there, you know, there is nice housing development in claim 76.

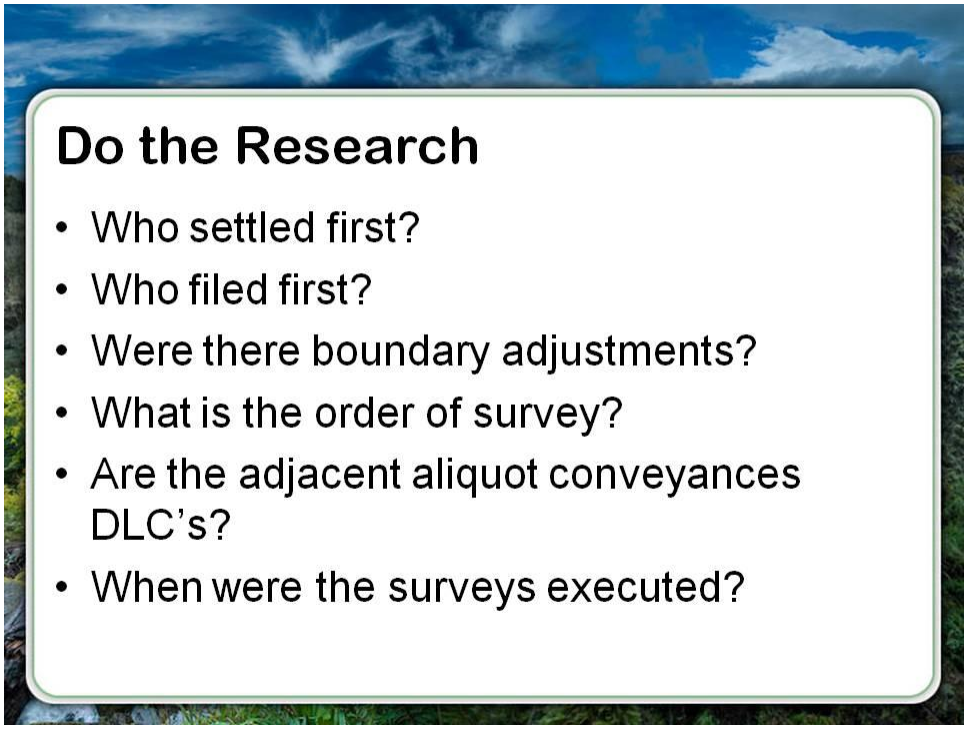
And there is, there's some other stuff going on so it's not something that's easily taken care of but right in the middle of all of this private land now, there's some federal land that nobody knew existed.

Fortunately, we have some remedies to take care of this, we did in this situation, and it ended up not being too painful I guess for the adjacent landowners or the federal government. That title got resolved, the adjacent land owners did end up owning that land and now though there is clear title and there are no survey issues involved along there. However, this is a common issue and the solicitor's opinion gave us some good insight.

Now, remember that this is a situation where the center south 16th and the claim corner are 81 feet apart. I think the solicitors answer might have been very different if the claim corner and DLC corner and aliquot part corner had been six feet apart. If there had been an overlap. We have to keep it in context. This decision was specific to this situation but it does give us some insight in to how we should resolve these issues but I do not think you can carry it over and say, "Oh, well that DLC corner will never be identical with the aliquot part corner unless they are in exactly the

same place." I do not think the surveyor or the solicitor was going there. However, in this specific situation, 81 feet apart, he said they are not common and there is federal landing.

I just want to go over a few issues when you are dealing with Donation Land Claims remember to do the research. Make sure that you know who settled first because that is such an important issue. Sometimes is a little difficult to find, but it is there in the records. Make sure you go find out and you know who settled first. Make sure you know who filed first. The date of that notification, when was the Surveyor General made aware of this.



We want to know were there boundary adjustments. Boundary adjustments are important. This is two landowners prior to conveyance, prior to survey, agreeing on what their boundary was and they agreed in conjunction with the Surveyor General.

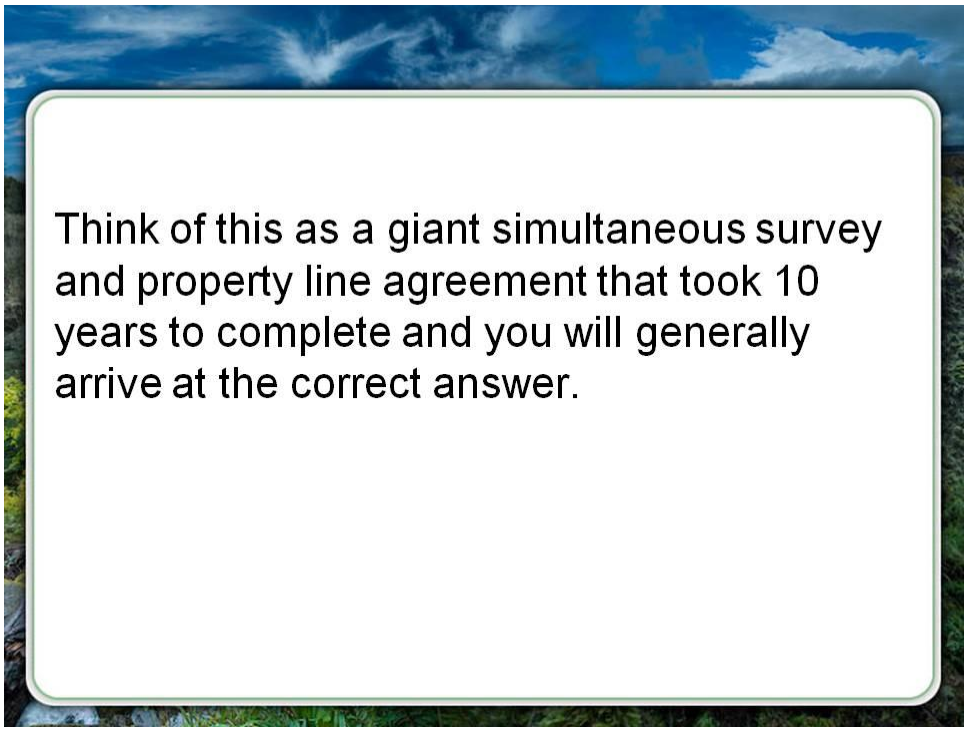
They were all working together to agree on a boundary and then it was surveyed based on that agreement so knowing if there is a boundary adjustment can have a big impact on what our decision might be so make sure you find out that. We need to know the order of survey, again the date of the surveys, and it is not just when they were approved, it is also when they were done. When were the surveys done? When were they approved?

Make sure you have all that information in your documentation. Are the adjacent aliquot part conveyances DLC's. Do your research there because do not just assume that a DLC that is conveyed by aliquot part is a later settlement date. Normally they are but do not assume that, make sure you find out the settlement date on an aliquot part DLC. Because it is, possible that it might be the earliest settlement of them all and it might have the senior right. Make sure you do that work. When were the surveys executed?

We have this sort of hodge-podge of different times and different parts of the process going on. Make sure that you know which survey was executed and especially when you are looking at corners. The order of survey but then we're also looking at what corners were done at what time because, was it placed on a senior line? Was it placed; the survey might have been done after a previous one but before that, one was filed.

In the field, one survey may have been done first and another survey done later but filing dates may be different. So make sure that you have all of that information together when the survey was done, when it was filed, make sure all of that is gathered and in a orderly form because that's going to come to decisions. My opinion, this is strictly my opinion, that if you think of this whole process as a giant simultaneous survey and property line agreement, that took ten years to complete, you'll generally arrive at the correct answer. Because that is what was happening.

This is a group of people who have all located, they were getting 640 acres a piece, there was not a lot of quibbling over a few feet here and a few feet there, they were making adjustments and boundaries of up to a quarter of a mile, the Surveyor General was involved in that. He was working with all of the people to get their claims surveyed, so that everyone knew where their claims were. He was working with them to make sure there were no gaps or overlaps.



The whole process took time and it was not all done in the exact order we would expect, but it was all carried out over a period of time, and working at this common goal of establishing everyone's boundaries with common lines and no gaps or overlaps. When you look at all this information, I think if you treat it as a simultaneous survey with property line adjustments. Most of the time, you are going to end up with the correct answer. That answer is going to be the DLC corners are going to control most of the time unless there are big gaps like those that we saw in the Kleinsmith case, there probably going to control on the subdivision section lines as well and on the section lines, unless again there are major errors or blunders in their positions.

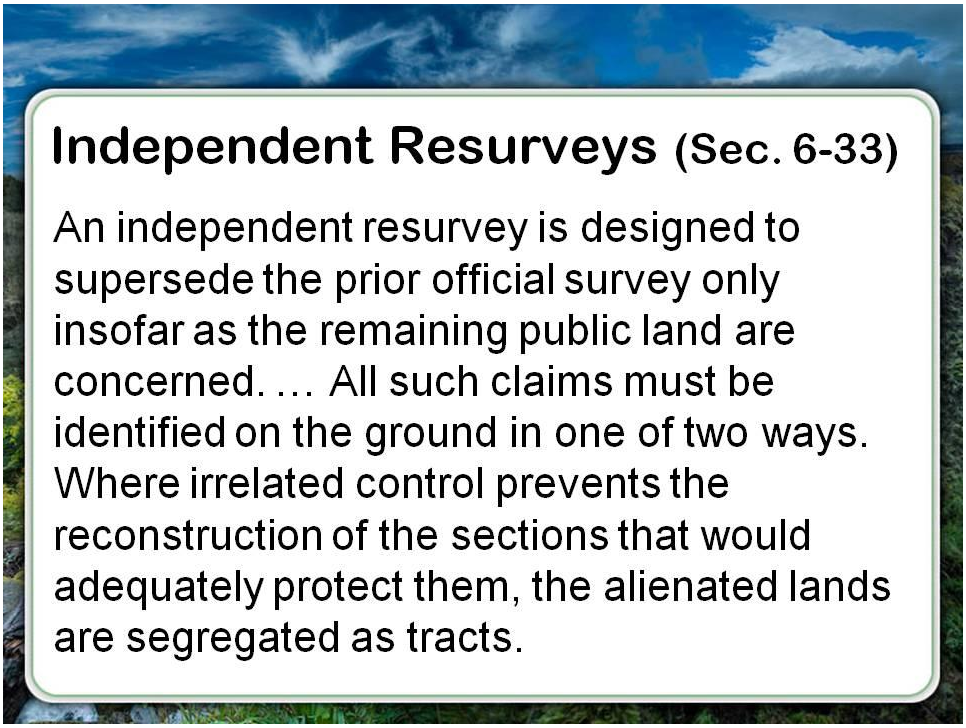
There are many issues to look at, what corners were tied? What corners were not tied? The key when you are all said and done is a good documentation. Make sure that you document everything you considered while you made the decision that you made and hopefully those who follow you will then agree with your decisions and those corners will become stable and reliable for landowners to use.

DLC's are an interesting issue and if we remember that the surveys were done, kind of stretched over time, this ten years, but there were property line agreements, there were, the surveys were designed to not create gaps and overlaps, and if we look at it that way I think often we're going to end up with the correct answer.

Independent Resurveys

Now, we want to move on and look a little bit at independent resurveys. We're not going to spend a lot of time on this but we want to cover it because that's another issue in another area where we have non-rectangular surveys and really, quite a few areas in the country we have independent resurveys. So let us look first at what the Manual has to say about independent resurveys, section 6-33.

An independent resurvey is designed to supersede the prior official survey only as far as the remaining public lands are concerned. It goes on to talk about claims that will not fit that and it says all such claims must be identified on the ground in one of two ways.

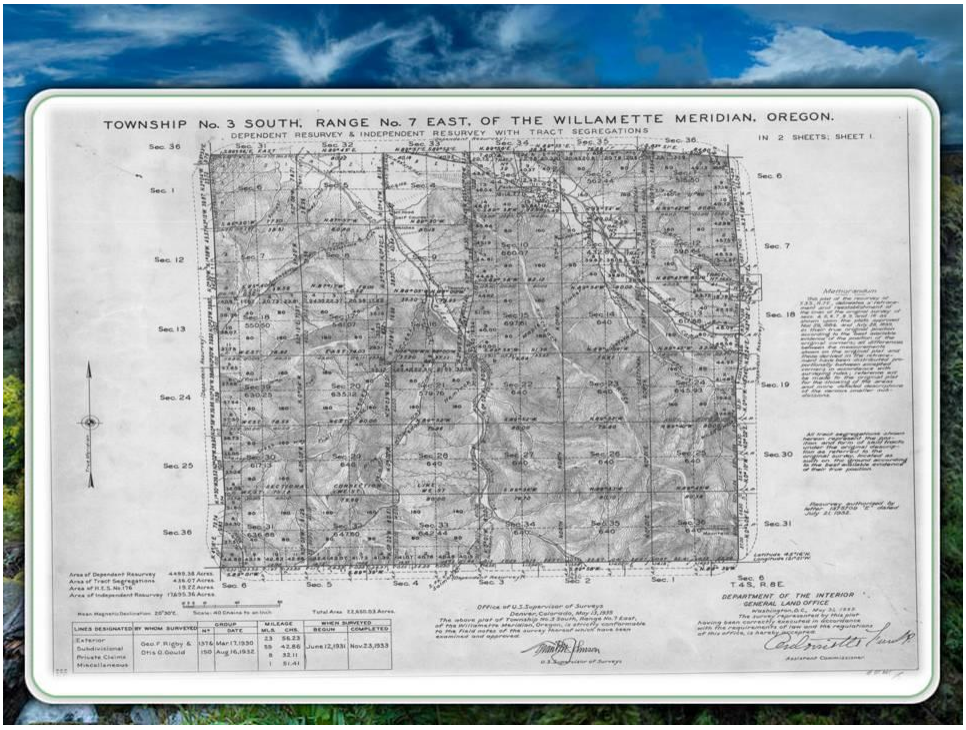


And then it goes on to say, where irrelated control prevents the reconstruction of the sections that would adequately protect them, the alienated lands are segregated as tracts, and that's what we want to talk a little bit about.

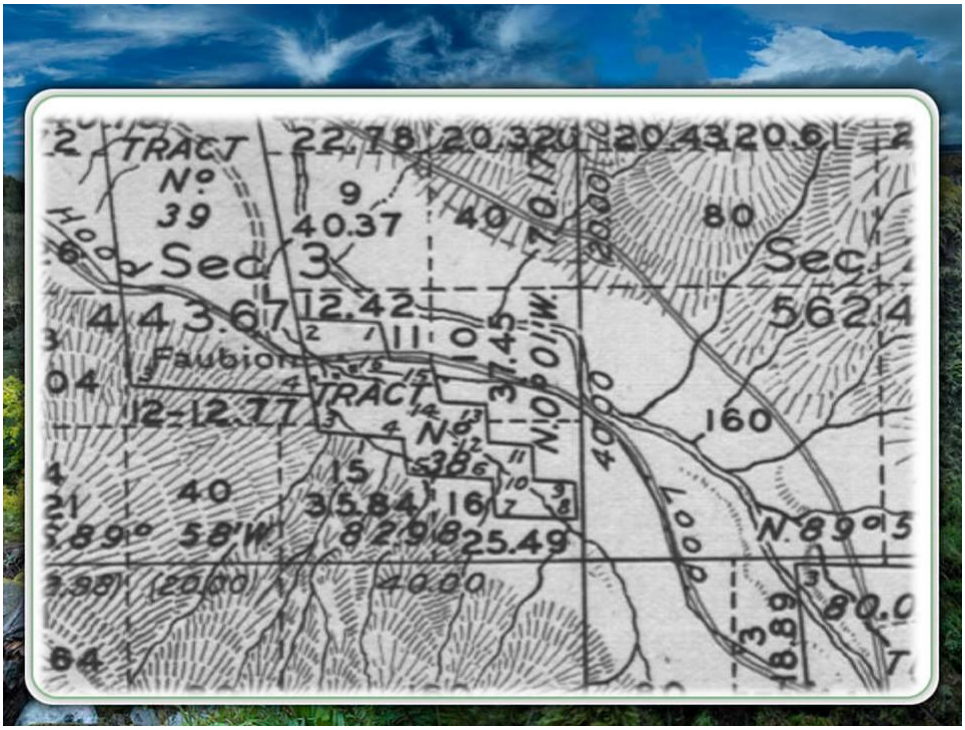
This is a situation where usually there was either some fraudulent surveying or all the evidence or most of the evidence in the original survey is missing. We have patented land in there. When we do a resurvey and reestablish corners based on that original survey, the location of the claimants or the patented land does not conform to the land that the resurvey lines do not conform to the use lines that are being used by the people out there. Of course there are rules to follow as far as deciding when the independent resurvey is the correct method.

What we want to focus on here though, when a resurvey is done and lands are tracked out to protect them, how that is done and how we need to deal with those.

So let's look at, here's a resurvey plat.



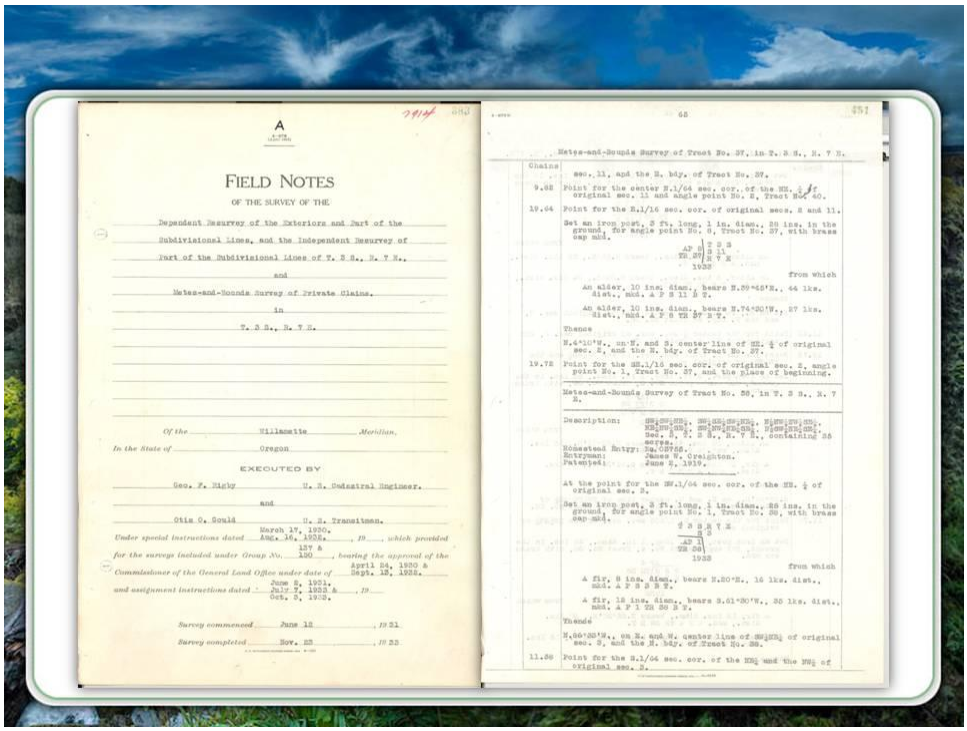
You can't see very well but this is an entire township with an independent resurvey, and here's a tract and here's tract number 38 and you'll notice that it stare stepped up through here and we'll see in a minute, this was originally an aliquot part description.



It has ended up in this shape, as a tract within the independent resurvey. If we look at the field notes, for this independent resurvey, first in the cover page you'll notice that its dependent resurvey of the exteriors and there's an independent resurvey of part of the sub divisional lines. There's a metes and bounds survey of private claims so it's a combination of things.

As we look at the field notes, you'll notice that this is a metes and bounds survey tract 38, and that's the tract we looked at on the plat.

You'll see that the original description for this was by aliquot part, so it was an aliquot part description. It was patented that way, so it was conveyed that way.



A

FIELD NOTES

OF THE SURVEY OF THE

Dependent Resurvey of the Exteriors and Part of the Subdivisional Lines, and the Independent Resurvey of Part of the Subdivisional Lines of T. 3 S., R. 7 W., and Metes-and-Bounds Survey of Private Claims, in T. 3 S., R. 7 W.

Of the Willamette Meridian,
In the State of Oregon

EXECUTED BY

Geo. F. Higby U. S. Cadastral Engineer,
and
Otis C. Gould U. S. Transitman.

March 17, 1930.
Under special instructions dated Aug. 16, 1926, , 19 , which provided for the survey included under Group No. 127 & 130 , bearing the approval of the Commissioner of the General Land Office under date of April 24, 1930 & Sept. 12, 1928, and assignment instructions dated June 5, 1931, July 7, 1933 & Oct. 6, 1930, , 19

Survey commenced June 12 , 19 31
Survey completed Nov. 23 , 19 32

Metes-and-Bounds Survey of Tract No. 37, in T. 3 S., R. 7 W.

Chains

sec. 11, and the N. bdy. of Tract No. 37.

9.68 Point for the center N.1/64 sec. cor. of the NE. ¼ of original sec. 11 and angle point No. 8, Tract No. 40.

19.04 Point for the N.1/16 sec. cor. of original secs. 8 and 11.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for angle point No. 9, Tract No. 37, with brass cap mkd.

AP 1 T 3 S
T 37 R 7 W
1932

from which

An alder, 10 ins. diam., bears N.89°45'E., 44 lks. dist., mkd. A P 8 11 S 7.

An alder, 10 ins. diam., bears N.74°30'W., 37 lks. dist., mkd. A P 8 TM 37 S 7.

Thence

N.4°10'W., on W. and S. center line of NE. ¼ of original sec. 8, and the N. bdy. of Tract No. 37.

19.72 Point for the NE.1/16 sec. cor. of original sec. 8, angle point No. 1, Tract No. 37, and the place of beginning.

Metes-and-Bounds Survey of Tract No. 38, in T. 3 S., R. 7 W.

Description: NW¼SE¼SW¼, W½NE¼SE¼SW¼, E½NW¼SW¼, W½SW¼SW¼, NW¼SE¼SW¼, E½NE¼SW¼, SW¼NE¼SW¼, Sec. 8, T. 3 S., R. 7 W., containing 26 acres.

Homestead Entry: No. 09766.
Entryman: James W. Creighton.
Patented: June 2, 1919.

At the point for the NW.1/64 sec. cor. of the NE. ¼ of original sec. 8.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for angle point No. 1, Tract No. 38, with brass cap mkd.

T 3 S
AP 1 R 7 W
1932

from which

A fir, 8 ins. diam., bears N.80°E., 16 lks. dist., mkd. A P 8 3 S 7.

A fir, 18 ins. diam., bears N.61°30'W., 30 lks. dist., mkd. A P 1 TM 38 S 7.

Thence

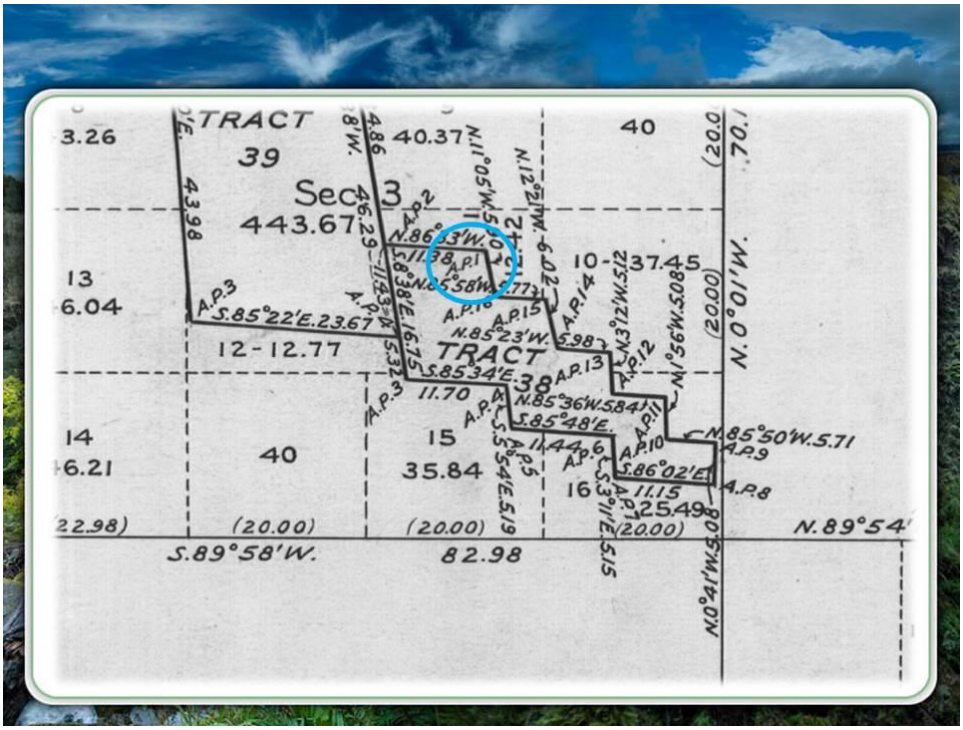
N.86°30'W., on N. and W. center line of NW¼NE¼ of original sec. 8, and the N. bdy. of Tract No. 38.

11.86 Point for the N.1/64 sec. cor. of the NE¼ and the NW¼ of original sec. 8.

Now when we come in to do a resurvey in that township there is so much distortion or there are so many lost or corners, that when we try to reestablish this, the boundaries, the new boundaries, are so different from the location of the claimants that it was decided to do a tract survey of that claim.

So the tract is laid out, based on this aliquot part description, it cannot have a lot more, you know, area.

It's constrained by the area that was in the original patent.

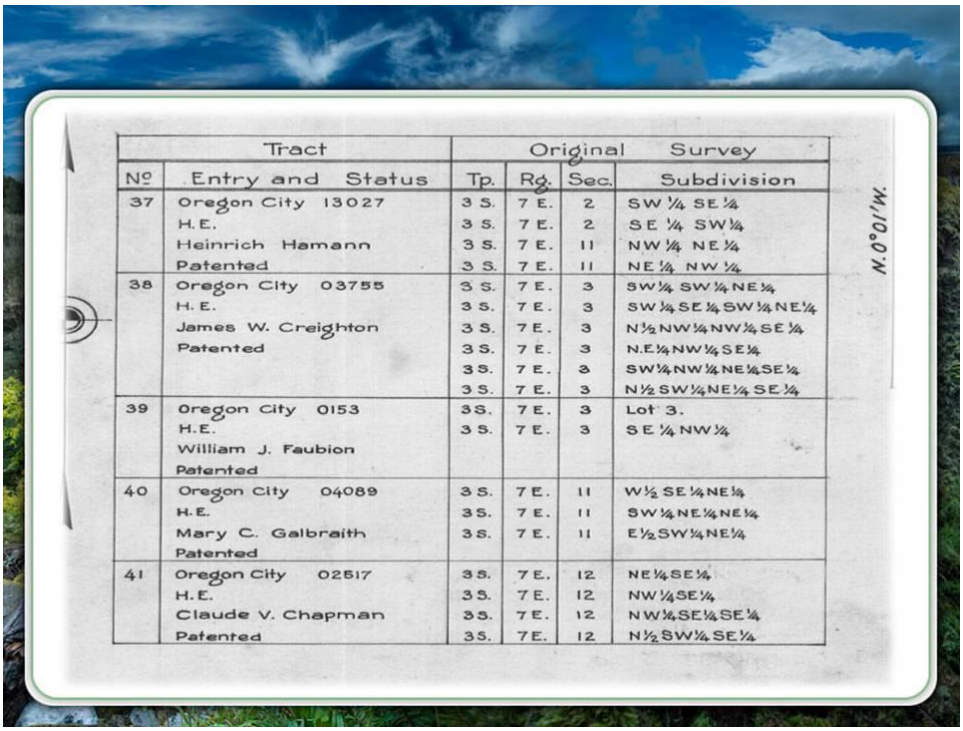


Its constrained by the shape that was described in the original patent, we're not going to change the shape or something, however, it is designed to protect that claimant that was out there on the ground and located in good faith.

Now, it becomes a tract so originally the patent was a aliquot part patent. The description actually changes and now it's a tract, and the corners are given tract numbers, and if you'll look at this plat, you'll look at this corner of which was originally an aliquot part corner, in that original description is now called AP1 and you'll see that it goes all the way around to AP16. So, corner names change, the description name changes and we then have a set of field notes within this independent resurvey of a metes and bounds survey of this parcel.

Of course you can look at this and you can see where we have several of these metes and bounds parcels in a group, you have all of the same issues of corner restoration, all of the same issues with junior/senior rights, that you do with many of the other non-rectangular surveys.

It's just another one, designed for a specific function, that needs to be dealt with and needs to be understood, and on most of the independent resurveys, there's going to be a very, very good file within the BLM or GLO record that will have contained all of the documents that deal with this track and this independent resurvey.



Tract		Original Survey			
No.	Entry and Status	Tp.	Rg.	Sec.	Subdivision
37	Oregon City 13027	3 S.	7 E.	2	SW ¼ SE ¼
	H.E.	3 S.	7 E.	2	SE ¼ SW ¼
	Heinrich Hamann	3 S.	7 E.	11	NW ¼ NE ¼
	Patented	3 S.	7 E.	11	NE ¼ NW ¼
38	Oregon City 03755	3 S.	7 E.	3	SW ¼ SW ¼ NE ¼
	H. E.	3 S.	7 E.	3	SW ¼ SE ¼ SW ¼ NE ¼
	James W. Creighton	3 S.	7 E.	3	N ½ NW ¼ NW ¼ SE ¼
	Patented	3 S.	7 E.	3	N.E ¼ NW ¼ SE ¼
		3 S.	7 E.	3	SW ¼ NW ¼ NE ¼ SE ¼
		3 S.	7 E.	3	N ½ SW ¼ NE ¼ SE ¼
39	Oregon City 0153	3 S.	7 E.	3	Lot 3.
	H.E.	3 S.	7 E.	3	SE ¼ NW ¼
	William J. Faubion				
	Patented				
40	Oregon City 04089	3 S.	7 E.	11	W ½ SE ¼ NE ¼
	H.E.	3 S.	7 E.	11	SW ¼ NE ¼ NE ¼
	Mary C. Galbraith	3 S.	7 E.	11	E ½ SW ¼ NE ¼
	Patented				
41	Oregon City 02517	3 S.	7 E.	12	NE ¼ SE ¼
	H.E.	3 S.	7 E.	12	NW ¼ SE ¼
	Claude V. Chapman	3 S.	7 E.	12	NW ¼ SE ¼ SE ¼
	Patented	3 S.	7 E.	12	N ½ SW ¼ SE ¼

M. 10° 0. N.

On every independent resurvey plat, there is a table. And on that table is a chart, this information and it takes the original patent, and it ties it to a tract number.

So if we look here, tract number 37, it lists who the entry men was, it lists you know where it was and now what the original aliquot part was. We go to 38 and it does the same thing, so there's always a chart that says what the original description was, who the claimant was, and what tract it

is now. So it makes that tie of changing the legal description from an aliquot part to a tract and that's always contained on the face of the plat.

Sometimes it doesn't get picked up in local records and that can be an issue on occasion but it's always there on the plat and in the file there's a document where the claimants agree, that this tract represents their patent. So that's also in the file to help document that this change in description does define that same patent and does protect the rights of the claimant.

Well, we've covered quite a few issues. I want to kind of review back because we haven't really been able to talk about everything that's involved in the donation land claim or in an independent resurvey. But I think they demonstrate some really key issues that we need to think about with all of the non-rectangular surveys and that is the record keeping system, the process, were there prior surveys? Were there preliminary surveys? Were there adjustments of boundaries? Are there senior/junior, junior/ senior rights and how are those established? How, what was the purpose of the non-rectangular survey? Were they to protect some kind of rights? Were the rights established prior to the survey or after the survey?

All of those kinds of issues need to be dealt with before we can end up with a good solution our resurvey problems and issues when dealing with this. I hope you've enjoyed this session. We'll enjoy the additional portions of the non-rectangular class.