What Do You Have and What Do You Want? Turning Dreams Into Reality

Rationale

Most people who purchase a small-acreage property have an idea of the eventual look and uses they envision for their property. Unfortunately, this vision is sometimes nebulous, incomplete, or unrealistic. Participants will be encouraged to focus on short-term and long-term goals for their properties. The first step in any land use endeavor is to identify the existing asset(s) of a property. As participants come to realize the extent and potential of their physical holdings as well as the limitations and responsibilities, they will be better prepared to set and implement reasonable goals for their properties.

Objectives

Participants will:

1. Learn what stewardship and sustainability mean.
2. Gain an understanding of their reasons for living on small-acreage properties.
3. Be able to assess and develop clearly defined sets of short-term and long-term goals for their properties.
4. Know how and why to complete an inventory of their property's facilities and assets.
5. Demonstrate an awareness of different components of their property by creating physical inventory maps.

What Do You Have and What Do You Want? Turning Dreams Into Reality – Lesson Plan

Time	Section	Goal	Activity	Instructor
20 min	Introduction	Introduce instructor, outline, course agenda and goals; introduce participants.	Icebreaker Overview of entire course Agenda: • Stewardship and the whole property approach • The good, the bad, and the ugly of small-acreage properties • Your goals for your property • Your existing resources • Making a map of your property Optional exercises: • Legal land descriptions • Calculating acreages	Distribute agenda and lesson. If appropriate, distribute notebook and handouts for entire course. Instructor leads icebreaker. Might be activity such as round-robin self-introduction and description of their properties, description of the best and worst thing on their property, etc. Inform participants that they'll be asked to actively participate throughout this lesson. PowerPoint slides 1-2
25 min	Participant rationale	Focus participants on what prompted them to take this course, including their concerns about their properties.	Define steward, sustainability and systems. Present slide show of small acreages throughout the west. Ask participants if any of the photos remind them of their properties. Ask which pictures look bad or good to them. Participants respond and record their reasons for taking the class and their concerns about their properties	Instructor can include local slides. Instructor can use flipchart, blackboard sticky wall or post-it notes, to group reasons. Instructor may need to introduce some examples to get the ball rolling and keep the discussion on the right track. PowerPoint slides 3-40
30 min	Setting goals	Participants begin process of developing and articulating goals for their property.	Participants develop a first draft of their goals on the Goals Assessment Activity Sheets provided. Participants list: • What they hope to accomplish on their property and/or • What they envision doing with the land and/or animals (maximize income, supplement income, subsistence, fun, habitat, fish, grazing, 4-H or FFA project, some combination, etc.)	Encourage participants to record their goals on the Goals Assessment Activity Sheets. Stress that participants think beyond immediate goals to longer-term goals for the next five or more years. Again, Instructor may need to introduce some examples to get the ball rolling. Walk around to check on progress and answer any questions. Consider dividing participants into small groups. PowerPoint slides 41-44
15 min	BREAK	BREAK	Participants can continue working on their goals during the break if they wish.	BREAK

What Do You Have and What Do You Want? Turning Dreams Into Reality – Lesson Plan (continued)

Time	Section	Goal	Activity	Instructor
75 min	Physical resource inventory	Enable participants to create inventory maps.	Using the Inventorying Property Facilities and Assets Activity Sheets, participants write down all fixtures, facilities, assets and problems they have on their properties. This can be done as part of the preregistration process, but should be reviewed in class to clarify any questions or confusion. Optional exercise: Participants receive copies of maps for their area or participants locate their properties on a wall map. Participants then identify their watershed. Using a sample map and blank site maps provided, participants sketch their properties showing current uses. Participants are encouraged to also include what their neighbors are doing on adjacent properties. Include all features, fixtures, assets and problems listed on the Inventorying Property Facilities and Assets Activity Sheet on the map. Participants then use a second blank map to sketch the changes they would like to see on their properties.	Instructor reviews Inventorying Property Facilities and Assets Activity Sheet. This can be done as part of the preregistration process, but should be reviewed in class to clarify any questions or confusion. PowerPoint slide 45 Obtain legal descriptions of participants' properties before class to assemble the necessary maps/photos. If possible, provide participants with scanned copies that they can keep. Introduce concept of a watershed. Demonstrate the ever-larger watershed within a watershed to illustrate system connectedness. PowerPoint slides 46-49 Instructor assigns homework: finishing up the Goals Assessment, Inventorying Property Facilities and Assets Activity Sheet, and Physical Inventory Map. Suggest participants make several copies of the map so they can make changes as needed in subsequent modules. PowerPoint slides 50-53
15 min	Questions and answers	Review content	Question-and-answer period	PowerPoint slide 54.
	Optional exercises		Teach participants how legal descriptions are formulated. Provide handouts summarizing the information. Participants learn several methods for calculating acreage from property maps. Handouts summarize the information. Understanding Legal Descriptions Activity Sheet Calculating Acreages from Property Maps Activity Sheet	Instructor briefly explains the layout of township and ranges, their relationship to sections, and how sections are then divided. Handouts summarize the information. Participants could be asked to determine their property descriptions from the maps provided. Instructor covers the acreage calculation information fairly quickly. Handouts summarize the information. Participants could be asked to calculate property acreage from the maps provided. PowerPoint slides 55-61

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Materials/supplies to be requested from participants before class starts

1. Completed preregistration forms
2. Existing maps of their properties
3. Copies of Covenants, Conditions and Restrictions (CC&Rs) for their properties, any zoning information, etc. that they may already have for their properties
4. Calculator, paper, writing utensils, rulers, etc.

Materials/supplies needed for class

1. Flip chart and markers (or dry-erase board, chalkboard or overhead projector)
2. Overhead or PowerPoint computer projection equipment
3. Pointer
4. Refreshments
5. Binders (3-inch or larger) for class materials with module tabs and lessons

Local resources needed for class

1. Using the legal descriptions of participants' properties (from the preregistration forms filled out by participants), instructor gathers maps, aerial photos, etc. prior to first class. This will make it easier to complete the mapping exercise during the first class.

Background information for instructors

Carroll, N. and Jones, D., 2006, Living on Acreages: What You Need to Know, MidWest Plan Service, Iowa State University, MWPS-50.

Klessig, L. and Kroenke, M., 1999, Country Acres: A Guide to Buying and Managing Rural Property, University of Wisconsin Cooperative Extension G3309, http://learningstore.uwex.edu/pdf/G3309.pdf or call 1-877-947-7827.

Rice, M., 2005, Small-Scale Farmers and the Environment: How to be a Good Steward, LPES Small Farms Fact Sheets, MidWest Plan Service, Iowa State University, http://www.lpes.org/SmallFarms/1_FrmrEnv.pdf

USDA NRCS, 2006, Living on a Few Acres, USDA Natural Resources Conservation Service, ftp://ftp-fc.sc.egov.usda.gov/ID/news/fewacres06.pdf or call (208) 378-5700 for copies.

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Handouts needed for participants

1. Maps and photos of participants' properties; extra graph paper and Mylar for drawing options
2. Goals Assessment Activity Sheet
3. Inventorying Property Facilities and Assets Activity Sheet
4. Samples of blank and completed resource inventories

Optional handouts needed for participants

1. Understanding Legal Descriptions Activity Sheet
2. Calculating Acreages from Property Maps Activity Sheet

Handouts needed for participants (in addition to lesson handouts)

1. List of local and state agencies that enforce regulations or provide technical assistance
2. Your local small-acreage tips booklet, if available

Web sites for further information

ATTRA, National Sustainable Agriculture Information Service, http://www.attra.org/

Colorado State University Cooperative Extension Service Small Acreage Management, http://www.larimer.org/extension/sam/sam.htm

Colorado State University Drought and Fire Resources, http://www.ext.colostate.edu/menudrought.html

Gallatin County, Montana Code of the West, http://www.gallatin.mt.gov/Public_Documents/gallatincomt_webdocs/codewest

Glossary of Real Estate Terms, http://www.csus.edu/obe/West/Glossary/

Idaho OnePlan Farm Planning, http://www.oneplan.org/

Landowning Colorado Style, http://csfs.colostate.edu/library/pdfs/homeandland/landowning_guide.pdf

Larimer County, Colorado Code of the West, http://www.co.larimer.co.us/planning/planning/code_of_the_west/index.htm

Oregon State University Extension Service Oregon Small Farms, http://smallfarms.oregonstate.edu/

Sustainable Agriculture Research and Education, http://www.sare.org/

Texas A & M University Conservation Ethics for Small Acreage Landowners, http://wfsc.tamu.edu/people/publication/B5035.pdf

University of Nebraska Lincoln Cooperative Extension Acreage and Small Farm Insights, http://acreage.unl.edu/

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Web sites for further information (continued)

University of Nevada Cooperative Extension Small Ranch Manual, http://www.unce.unr.edu/publications/files/ag/other/eb9502.pdf

Washington State University Cooperative Extension Small Farms, http://www.smallfarms.wsu.edu/

Homework assignment

Complete the following:

1. Goal-setting Activity Sheet.
2. Inventorying Property Facilities and Assets Activity Sheet.
3. Physical Inventory Map – existing conditions.
4. Physical Inventory Map – proposed changes.
5. Understanding Legal Descriptions Activity Sheet (optional).
6. Calculating Acreages from Property Maps Activity Sheet (optional).

Goal-setting Activity Sheet, page 1 of 2

Your Goals and Resources: What Are Your Goals For Your Property?

After reflecting for a few moments, list goals for your property. Don't let your ideas be limited by considerations such as finances. You'll revise your goals after the next lesson. If you have a timeline in mind, record a finish date for the goal. If not, note the relative priority of each goal.

What are your goals for your property?	What resources do you need?	What is the priority or time line?	When will you be finished?
1.			
2.			
3.			
4.			

Goal-setting Activity Sheet, page 2 of 2

What are your goals for your property?	What resources do you need?	What is the priority or time line?	When will you be finished?
5.			
6.			
7.			
8.			

Inventorying Property Facilities and Assets Activity Sheet, page 1 of 4

What buildings do you have on your property?

House ☐ Yes ☐ No Footprint?* _____

Footprint: The space occupied by a building expressed in square footage.

Outbuildings ☐ Y ☐ N

Type: _____ Foot print*_____

Type: _____ Foot print*_____

Type: _____ Foot print*_____

Type: _____ Foot print*_____

What facilities do you have on your property?

Corrals ☐ Yes ☐ No

Location and dimensions _____

_____

Pasture(s) ☐ Yes ☐ No

Location and dimensions _____

_____

Location and dimensions _____

_____

Fences ☐ Yes ☐ No

Type _____

Location and lengths_____

Type _____

Location and lengths _____

Type _____

Location and lengths _____

Type _____

Location and lengths _____

Well(s) ☐ Yes ☐ No

Type _____

Permitted uses _____

Volume of water you're allowed to use each day_____

Type _____

Permitted uses _____

Volume of water you're allowed to use each day_____

Inventorying Property Facilities and Assets Activity Sheet, page 2 of 4

Facilities on your property, continued:

Water lines ☐ Yes ☐ No

Type (household, irrigation, etc) _____

Location _____

Type _____

Location _____

Septic system ☐ Yes ☐ No

Type _____

Size and location of tank _____

Depth, location and dimensions of drainfield _____

_____

Sewer lines ☐ Yes ☐ No

Size, location and depth _____

_____

_____

Gas/oil lines ☐ Yes ☐ No

Type (above or below ground) _____

Location _____

Type _____

Location _____

Power lines ☐ Yes ☐ No

Type (above or below ground) _____

Location _____

Type _____

Location _____

Cable lines ☐ Yes ☐ No

Type (above or below ground) _____

Location _____

Type _____

Location _____

Telephone lines ☐ Yes ☐ No

Type (above or below ground) _____

Location _____

Type _____

Location _____

Inventorying Property Facilities and Assets Activity Sheet, page 3 of 4

Facilities on your property, continued:

Do you have easements on your property for any of the following?

- Sewer ☐ Yes ☐ No Location _____
- Power lines ☐ Yes ☐ No Location _____
- Cable lines ☐ Yes ☐ No Location _____
- Telephone lines ☐ Yes ☐ No Location _____
- Access ☐ Yes ☐ No Type _____
  Location _____
- Drainage ☐ Yes ☐ No Location _____
- Irrigation ditches ☐ Yes ☐ No Location _____
- Frontage ☐ Yes ☐ No Type (sidewalks, street widening, etc) _____
  Location _____

Are you aware of any buffer zone requirements on your property? List the location, width and requirements.

_____

_____

_____

Property assets:

Existing trees or areas with vegetation ☐ Yes ☐ No

Condition _____

Defensible space areas ☐ Yes ☐ No

Condition _____

_____

Pasture(s) ☐ Yes ☐ No

Condition _____

_____

Streams/creeks ☐ Yes ☐ No

Condition _____

_____

Wetlands ☐ Yes ☐ No

Condition _____

_____

Ponds ☐ Yes ☐ No

Condition _____

_____

Inventorying Property Facilities and Assets Activity Sheet, page 4 of 4

Property assets (continued):

Are you having problems with any of the assets listed above? Write them below.

_____
_____
_____
_____
_____
_____
_____
_____
_____

Property problems:

Wildfire threats within 50 feet of your house or outbuildings:

Trees? ☐ Yes ☐ No Tall shrubs? ☐ Yes ☐ No Dry groundcover? ☐ Yes ☐ No

Firewood piles? ☐ Yes ☐ No Decks? ☐ Yes ☐ No

What material is your roof made from? _____

Do your attic vents have screens? ☐ Yes ☐ No

Do you know if your landscaping plants are “fire resistant”? ☐ Yes ☐ No

Weedy areas ☐ Yes ☐ No

Describe the weeds. List the name or description, the amount of area affected, and the severity of the problem.

_____
_____
_____
_____
_____

Any other problems? _____

_____
_____
_____
_____
_____

Sample Inventory Map

Property characteristics

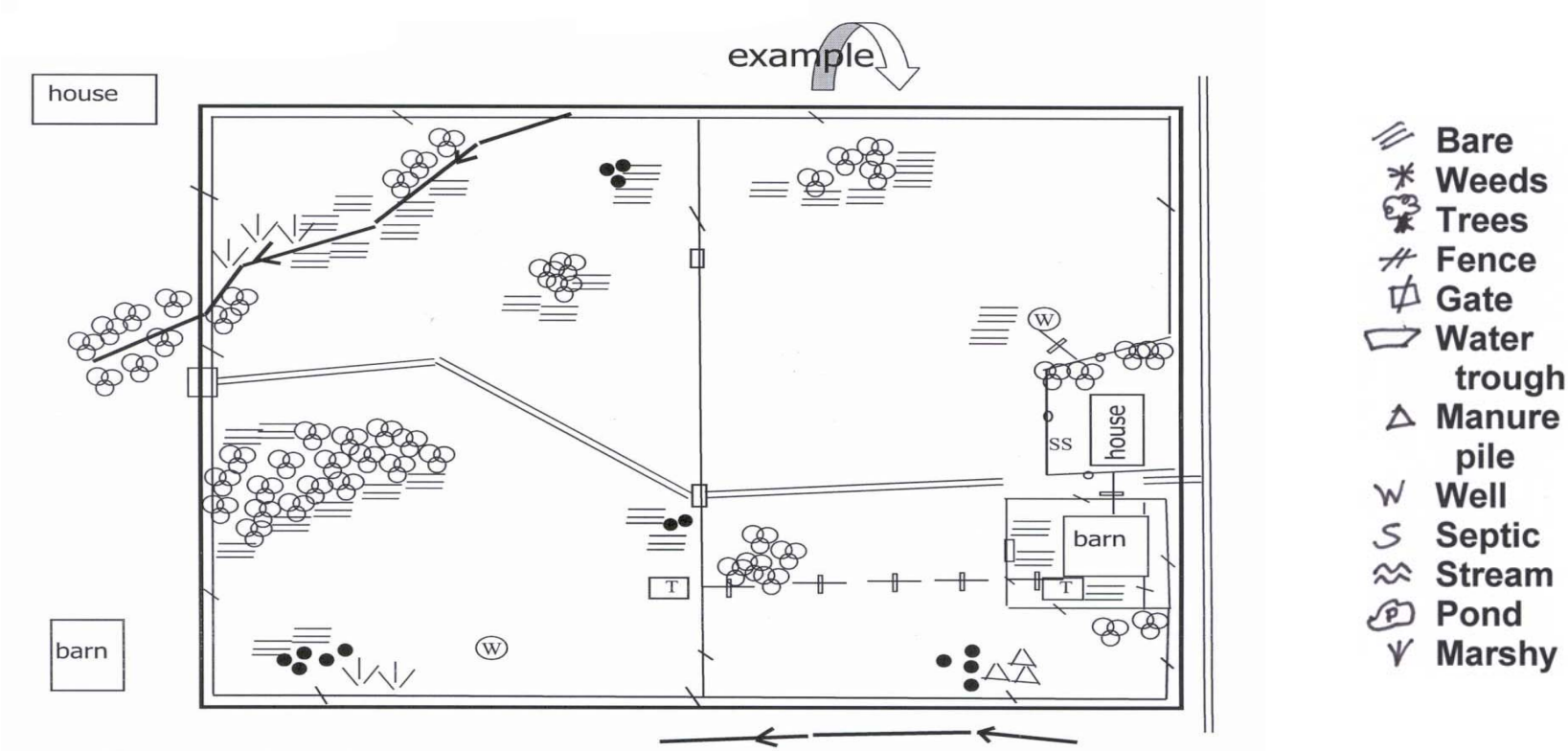
Legal description: SE1/4, NE1/4, SE1/4 of Section 9, T20N, R14E

Total acres: 10 Types and numbers of animals: 6 cattle, 1 horse, 3 goats

Number of pastures: 2 Months animals are grazed: 9 months Soil types: clay loam, silt loam

Grasses present: Tall fescue, orchardgrass, clover, bentgrass

Weeds present: Canada thistle, pigweed



Adapted from: Presentation materials written by Wendy Williams, USDA NRCS, Bozeman, MT.

Inventory Map of Existing Resources Activity Sheet

Sketch the outline of your property and show all the facilities and assets. Add the locations of your neighbors' buildings and facilities that are close to your property.

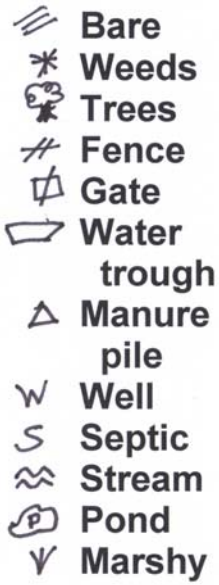
Legal description:_____

Total acres: _____Types and numbers of animals:_____

Number of pastures:_____Months animals are grazed:_____Soil types:_____

Grasses present:_____

Weeds present:_____



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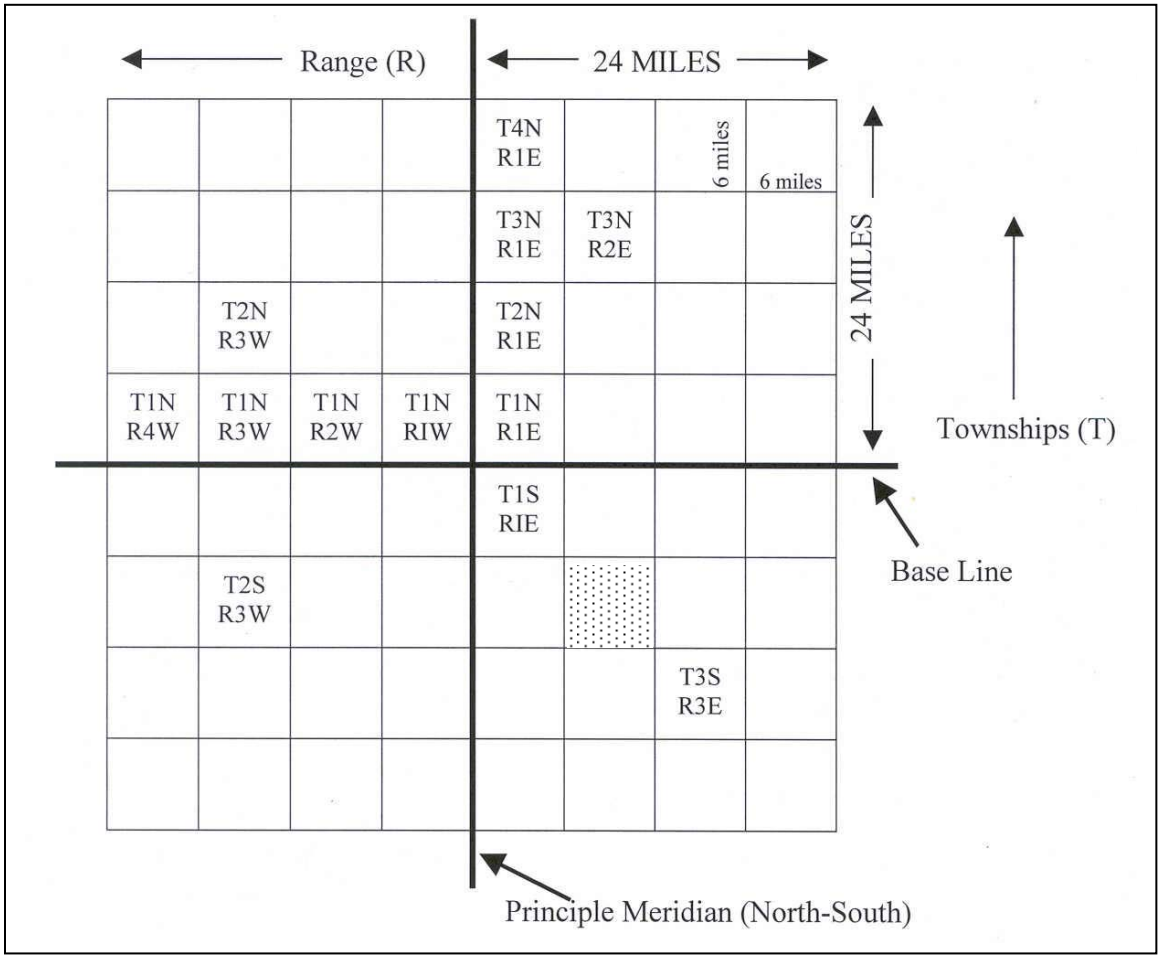
Understanding Legal Descriptions Activity Sheet, page 1 of 4
Townships and Ranges



Townships and ranges

In the west, to write legal descriptions of properties, land was divided into townships and ranges starting at different principle meridians.

- Each T/R area is 6 miles on a side.
- Townships and Ranges begin counting off from the point where the Principle Meridian and the Base Line meet.
- Townships are either north or south of the baseline and Ranges are either east or west of the Principle Meridian.
- Each Township and Range block equals approximately 36 square miles (23,040 acres).

Note the dotted block. This is T2S, R2E. We will use this in the next worksheet to describe sections.

Understanding Legal Descriptions Activity Sheet, page 2 of 4
Sections

Township 2 S, Range 2 E

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

1 mile

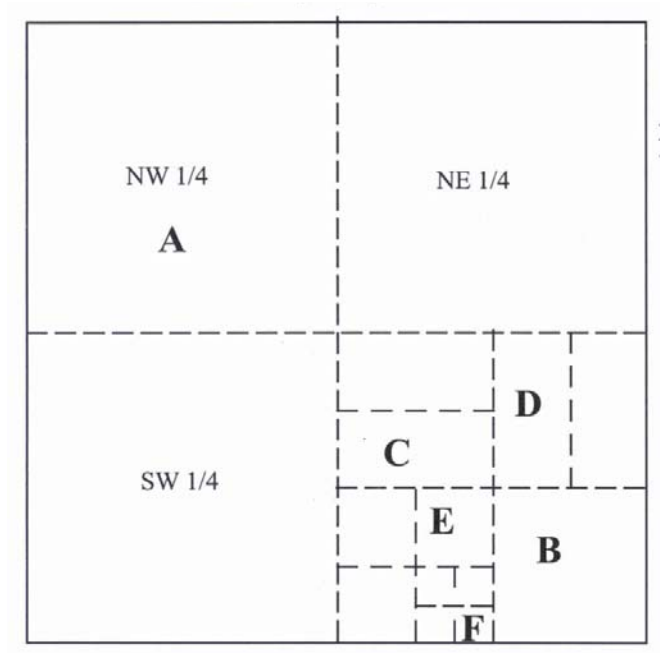
1 mile

By convention, sections are counted off as shown on the diagram above.

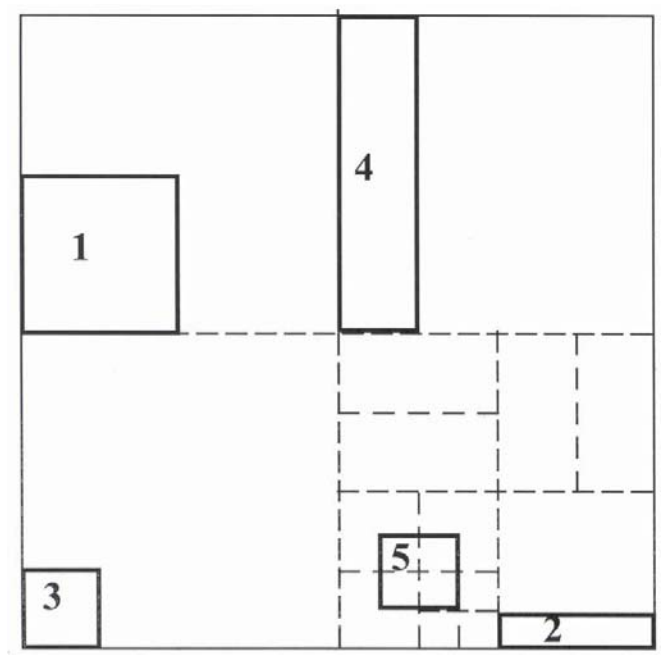
- Each township contains 36 sections.
- Each section is about one mile on each side.
- One section, or one square mile, is 640 acres.
- 1 mile by 1 mile = 5,280 feet x 5,280 feet = 27,878,400 square feet/43,560 square feet per acre = 640 acres.
- Due to the curvature of the earth, not all sections are exactly one square mile.
- Section 13, the dotted section above, will be used for the exercises on the next page.

Understanding Legal Descriptions Activity Sheet, page 3 of 4

Legal descriptions: By convention, these descriptions start from the smallest area and proceed to the larger area, as seen in the sample descriptions below. Descriptions are usually written in terms of halves or quarters.



Section 13, T2S, R2E



Area A:
NW 1/4, Section 13, T2S, R2E (160 acres)

Area B:
SE 1/4, SE 1/4, Section 13, T2S, R2E (40 acres) – the southeast quarter of the southeast quarter

Area C:
S 1/2, NW 1/4, SE 1/4, Section 13, T2S, R2E (20 acres)

Area D:
W 1/2, NE 1/4, SE 1/4, Section 13, T2S, R2E (20 acres)

Area E:
NE 1/4, SW 1/4, SE 1/4, Section 13, T2S, R2E (10 Acres)

Area F:
SE 1/4, SE 1/4, SW 1/4, SE1/4, Section 13, T2S, R2E (2.5 acres)

Sometimes it helps to write or think of a “of the” in place of the commas in the legal description. The description for area F then becomes: “the SE1/4 of the SE 1/4 of the SW 1/4 of the SE 1/4 of section 13 of T2S, R2E”

Exercise: Describe the five properties shown at the left and list their acreages. These properties are also in Section 13, T2S, R2E, as shown above.

Understanding Legal Descriptions Activity Sheet, page 4 of 4
Answer Key

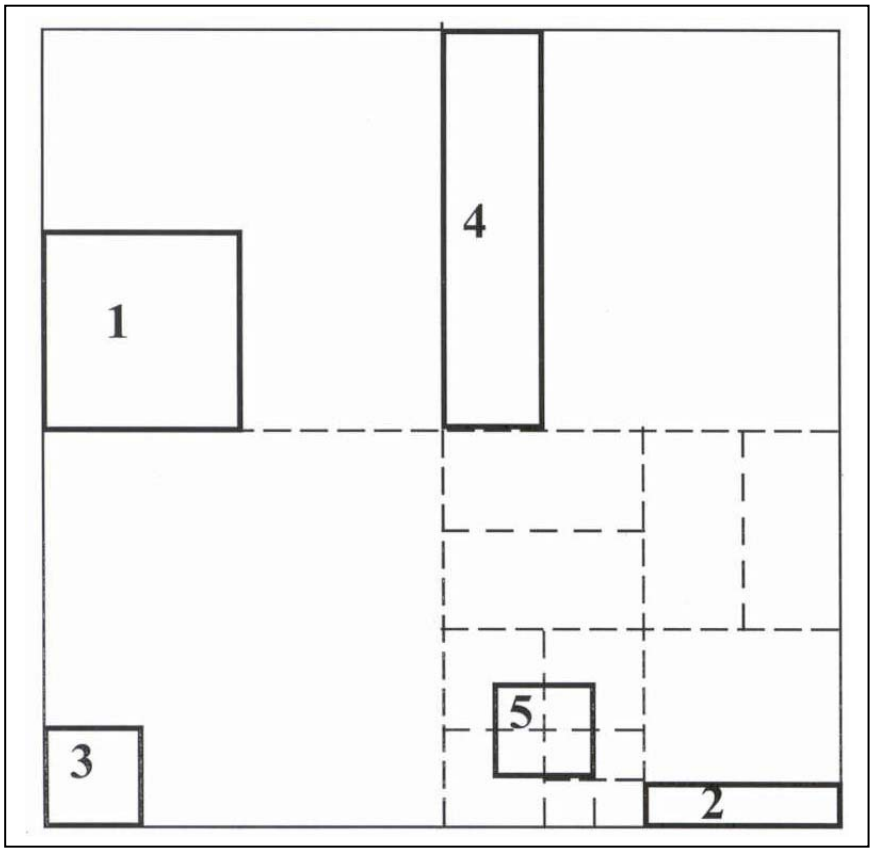
1) SW 1/4, NW 1/4, Section 13, T2S, R2E (40 acres)

2) S 1/4, SE 1/4, SE 1/4, Section 13, T2S, R2E (10 acres)

3) SW 1/4, SW 1/4, SW 1/4, Section 13, T2S, R2E (10 acres)

4) W 1/4, NE 1/4, Section 13, T2S, R2E (40 acres)

5) Starting at the number 5 and working clockwise, SE 1/4, NW 1/4, SW 1/4, SE 1/4, **AND** SW 1/4, NE 1/4, SW 1/4, SE ¼, **AND** NW 1/4, SE 1/4, SW 1/4, SE ¼, **AND** NE 1/4, SW 1/4, SW 1/4, SE 1/4, Section 13, T2S, R2E (10 acres total)



Calculating Acreages from Property Maps Activity Sheet, page 1 of 2

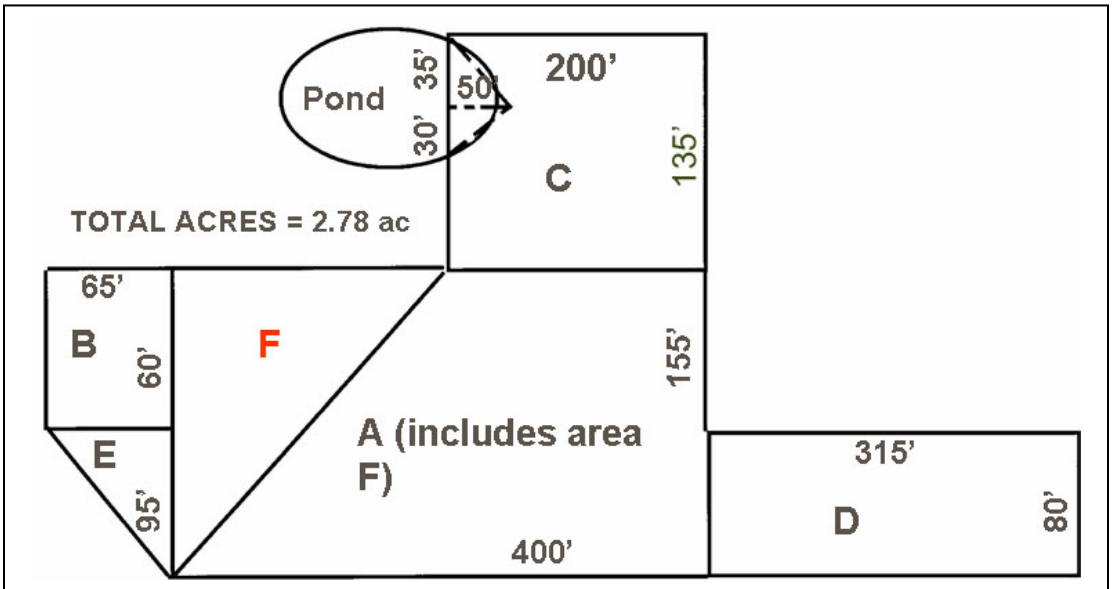
When calculating acreages for your property, try to break the area into squares or rectangles with known distances for each side, as shown below.

For full rectangles, multiply the length of one side in feet times the length of the other side in feet to get the square footage. Then, divide by 43,560 square feet/acre to get the number of acres.

Examples:

Area A:	400 x 155 = 62,000 square feet 62,000 square feet divided by 43,560 =	1.42 acres
Area B:	65 x 60 = 3,900 square feet 3,900 square feet divided by 43,560 =	0.09 acres
Area C:	200 x 135 = 27,000 square feet by 43,560 square feet per acre = 0.62 acres. As an aside, the pond area in C (using triangular areas; length times width divided by 2) = 50 x 35 = 1,750/2 = 875 square feet + 30 x 50 = 1,500/2 = 750 square feet = 1,625 square feet of pond. Usable land of Area C = 27,000 – 1625 = 25,375 square feet divided by 43,560 = 0.58 acres	
Area D:	315 x 80 = 25,200 square feet 25,200 square feet divided by 43,560 =	0.58 acres
Area E:	65 x 95 = 6,175 square feet 6,175 square feet divided by 43,560 = HOWEVER: Area E is only half of the rectangle, so divide by 2 to get	0.14 acres 0.07 acres

Total Acres = 1.42 + 0.09 + 0.62 + 0.58 + 0.07 = 2.78 acres



Try your skill: Calculate the acreage of AREA F

Calculating Acreages from Property Maps Activity Sheet, page 2 of 2 Answer Key

Note that Area F is a triangle. You can figure out the length of one side of the triangle by adding together sides from E and B:

95 feet + 60 feet = 155 feet.

You can figure out another length by subtracting the length of side C from side A:

400 feet – 200 feet = 200 feet.

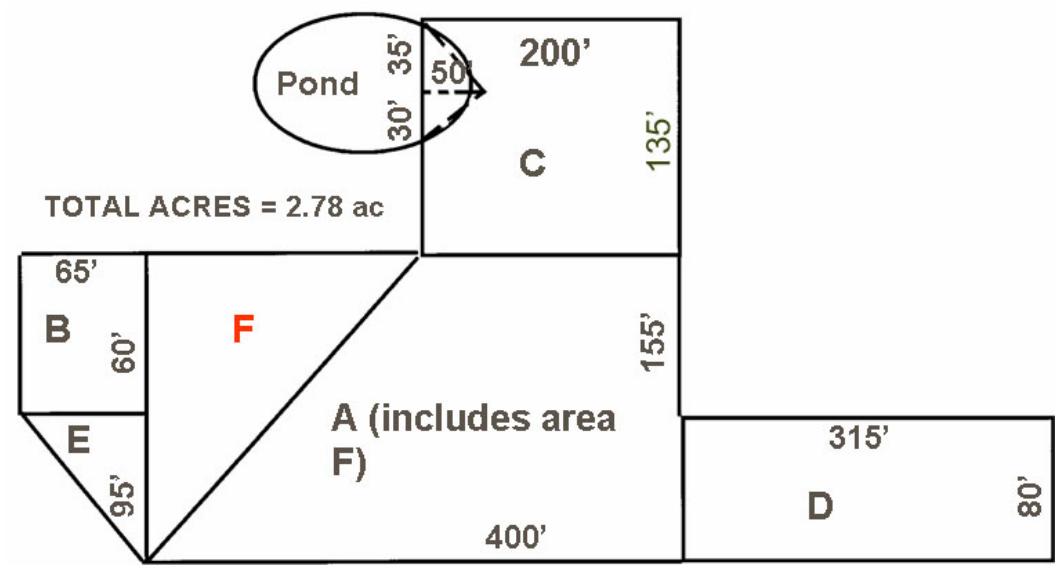
Now you can calculate the size of the rectangle that includes F:

155 x 200 = 31,000 square feet

31,000 square feet divided by 43,560 square feet per acre = 0.71 acres

Triangle F is half the rectangle

0.71 acres divided by 2 = 0.355 acres



Try your skill: Calculate the acreage of AREA F

What Do You Have and What Do You Want? Turning Dreams Into Reality Glossary

Buffer zone, buffer strip: Neutral area that acts as a protective barrier separating two conflicting forces. An area that acts to minimize the impact of pollutants on the environment or public welfare. For example, a buffer zone is established between a composting facility and neighboring residents to minimize odor problems. A buffer strip is a grassed or planted zone that acts as a protective barrier between an area which experiences livestock grazing or other activities and a water body. Buffer strips can be streamside features to protect streams and streambanks or features built on slopes to slow water runoff velocities.

Covenants, conditions and restrictions (CC&Rs): A series of regulations created by neighborhoods or housing developments that govern various construction features, such as setbacks, fence heights and types, house paint colors, etc.

Easement: A right to use the land of another for a specific purpose, such as for a right-of-way, access to water or utilities; an incorporeal interest in land.

Footprint: The space occupied by a building expressed in square footage; the “footprint” the building makes on the property.

Section: A subsection of a township. Each township is divided into 36 sections, each section contains 640 acres and measures 1 mile by 1 mile.

Township: A unit of legal land description adopted from the English system. Townships are approximately 6 miles on each side.

Watershed (drainage basin): An area of land that collects rain and/or snowmelt and discharges much of it to a stream, river, or other water body, or to groundwater.

Wetland: An area of land that is saturated at least part of the year by water. Wetlands are defined and delineated with specific criteria related to their hydrology, soils, and vegetation. Wetlands associated with coastal salt water include salt marshes, tidal basins, marshes, and mangrove swamps. Inland freshwater wetlands include swamps, marshes, seeps and bogs (lentic wetlands) and streams, rivers, and springs (lotic wetlands).

What Do You Have and What Do You Want? Turning Dreams Into Reality Evaluation

(Circle your answer.) Was this lesson:	Not at all	----------→			Very much so
Current, up-to-date?	1	2	3	4	5
Understandable?	1	2	3	4	5
Presented in an interesting way?	1	2	3	4	5
Did the program answer any questions you had?	1	2	3	4	5
Did it help you learn how to do new things or how to do something better than you knew before?	1	2	3	4	5
Do you intend to use any of the information from this lesson?	1	2	3	4	5
Overall, was this program worth your time to attend?	1	2	3	4	5

What was the most informative part of this session?

Which part was too technical and why?

Which part was too easy and why?

On which part(s) do we need to spend more or less time?

On which topic(s) would you like more information?

What one practice from this lesson will you implement within a year?

What Do You Have and What Do You Want? Turning Dreams Into Reality Post-class Mini-test

1. T or F Watersheds are defined by political boundaries such as counties.

2. T or F Watersheds may be nested – that is, a small watershed may be part of a larger watershed.

3. T or F You need to be concerned about neighboring land uses and activities when planning activities on your property.

4. T or F You don't need to be concerned about how your activities affect or may affect your neighbors.

5. List three things that are generally considered assets on a property.

   a.
   b.
   c.

6. List three things that are generally considered problems on a property.

   a.
   b.
   c.

7. List three things that can be both assets and problems on a property.

   a.
   b.
   c.

What Do You Have and What Do You Want? Turning Dreams Into Reality Post-class Mini-test Answer Key

1. F
2. T
3. T
4. F
5. List three things that are generally considered assets on a property.
    a. Existing wells
    b. Existing fences
    c. Existing corrals
    d. Existing buildings
    e. Existing trees
    f. Existing irrigation systems
    g. Existing pastures
    h. Existing defensible space
6. List three things that are generally considered problems on a property.
    a. Weedy areas
    b. Easements (can limit where building may occur)
    c. Manure piles
    d. Buried or above ground power, water, gas, cable or sewer lines
    e. Septic system
    f. Any asset located in the wrong area for maximum beneficial use
7. List three things that can be both assets and problems on a property.
    a. Wetlands, streams, creeks, ponds, any surface water
    b. Any asset that has not been well maintained and serviced or repaired regularly can become a problem
    c. Any asset located in the wrong place for beneficial use
    d. Any asset located in an area that is not appropriate for its function – for instance, a well in the corral, a manure pile upwind of your patio, etc.
    e. Existing vegetation, if it will not mesh with your goals or serve a useful function. For instance, a windbreak that is downwind of your house, or trees that touch the rooftop of a building, creating a potential fire hazard.