

The Oklahoma Water Law Handbook

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**Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University**

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The Oklahoma Water Law Handbook

We all recognize that water is a necessity of life. However, we might be surprised to learn just how many aspects of our life it impacts. In addition to its use for drinking, cooking, and sanitation, we also use it to sustain crops and livestock, provide water and habitat to wildlife, generate electricity, transport goods, and support countless businesses and industries. With all of these uses competing for a limited amount of water in our state, a system is needed to govern how our water resources will be allocated and which uses will be given priority if there is not enough water for every use. This is the task of Oklahoma's water law. Even since Oklahoma's territorial days, we have had a system of laws that described what uses of water were a "right" of land owners, and which uses were subject to the approval of the government.

Much of Oklahoma's water law starts with Title 60, Section 60 of the Oklahoma Statutes. That section, part of the property law title of the statutes, reads as follows:

A. The owner of the land owns water standing thereon, or flowing over or under its surface but not forming a definite stream. The use of groundwater shall be governed by the Oklahoma Groundwater Law. Water running in a definite stream, formed by nature over or under the surface, may be used by the owner of the land riparian to the stream for domestic uses as defined in Section 105.1 of Title 82 of the Oklahoma Statutes, but he may not prevent the natural flow of the stream, or of the natural spring from which it commences its definite course, nor pursue nor pollute the same, as such water then becomes public water and is subject to appropriation for the benefit and welfare of the people of the state, as provided by law; Provided however, that nothing contained herein shall prevent the owner of land from damming up or otherwise using

the bed of a stream on his land for the collection or storage of waters in an amount not to exceed that which he owns, by virtue of the first sentence of this section so long as he provides for the continued natural flow of the stream in an amount equal to that which entered his land less the uses allowed for domestic uses and for valid appropriations made pursuant to Title 82 of the Oklahoma Statutes; provided further, that nothing contained herein shall be construed to limit the powers of the Oklahoma Water Resources Board to grant permission to build or alter structures on a stream pursuant to Title 82 of the Oklahoma Statutes to provide for the storage of additional water the use of which the landowner has or acquires by virtue of this act.

B. All rights to the use of water in a definite stream in this state are governed by this section and other laws in Title 82 of the Oklahoma Statutes, which laws are exclusive and supersede the common law.

This statute basically recognizes three forms of water: (1) diffused surface water (commonly known as "runoff" water), (2) water in definite streams, and (3) groundwater. It also lays out a framework for the system of laws governing the use of each type of water.

While Title 60, Section 60 lays out the foundation for Oklahoma's water law, it is only the beginning. Oklahoma's water law derives from a variety of sources, including additional state statutes, the regulations of several Oklahoma state agencies, and cases decided by both Oklahoma and U.S. courts. Given all of these sources and the complexity of water issues, understanding what you need to do to obtain the right to use water can be complex, and sometimes intimidating. The purpose of the Oklahoma Water Law Handbook is to provide a guide

to Oklahoma's water law in plain English. In this Handbook, we will define the various kinds of water governed by Oklahoma's water law, illustrate how you can obtain the rights, and discuss issues that can impact use of those waters (such as pollution and restrictions on water uses).

To help you understand some of the concepts we will discuss, it would help to have some illustrated examples. After we have discussed the procedures for getting the right to

use a specific type of water, we will provide a case study so you can see how the concepts are applied to a "real world" situation. At the end of each section, we will provide a list of contacts and resources for more information about the topic addressed.

We hope you will find this handbook both informative and easy to follow. If you have questions or comments, we welcome your input.

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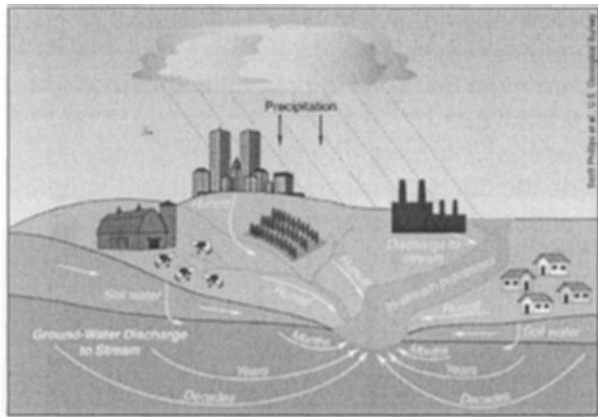
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Understanding the Different Kinds of Water Addressed by Oklahoma's Water Law

Oklahoma's water law separates water into three basic types: (1) diffused surface water, (2) water in definite streams, and (3) groundwater. Each of these types of water has unique characteristics, and each is handled differently under Oklahoma Law.



(Image courtesy U.S. Geological Survey)

Diffused Surface Water



Diffused surface water is defined as “water standing [on the surface of the property], or flowing over or under its surface but not forming a definite stream.”¹ Diffused surface water may sound like a technical term. Most commonly, we would think of this form of water as “runoff.” In the Oklahoma Water Law Handbook, we will use the word “runoff” to refer to what Oklahoma's water law would call “diffused surface water.”

Runoff is the only type of water whose use is not regulated by the government, giving the

¹ 60 OKLA. STAT. § 60(A).

landowner almost complete rights to do anything they wish with the water.² In comparison, the use of stream water and groundwater is heavily regulated, but the right to use them may be regarded as a property right that may come with ownership of the land where they are found.

In its natural state, runoff is difficult to use. As a result, many landowners dig ponds and construct dams to collect the runoff into one area so it can be used for livestock watering or aquatic habitat. Strictly speaking, once runoff reaches a ditch or stream – anything with a definite channel that has defined beds and banks³ – it stops being runoff and becomes “stream water,” which is discussed below. In some circumstances, landowners may use dams across these ditches or streams to contain the runoff. We will discuss this in more detail in “Oklahoma Diffuse Surface (“Runoff”) Water Law and Rules.”

Definite Streams

Oklahoma law defines “stream water” as “water in a definite stream...”⁴ and defines definite stream as “a watercourse in a definite, natural channel, with defined beds and banks, originating from a definite source or sources of



² 60 OKLA. STAT. § 60(A).

³ OKLA. ADMIN. CODE § 785:20-1-2 (definitions of “diffused surface water” and “definite stream.”).

⁴ OKLA. ADMIN. CODE § 785:20-1-2 (definitions of “stream water.”).

supply.”⁵ So, stream water is probably what you expect – water running through a channel.

While the image of a stream running through its channel definitely fits the definition of “stream water,” other somewhat surprising forms of water also fit the definition. For example, the definition of “definite stream” includes the following language: “[t]he stream may flow intermittently or at irregular intervals if that is characteristic of the sources of supply in the area.”⁶ This means that a stream does not have to flow year-round to be considered a definite stream; once runoff reaches a dry stream bed and starts to flow down its channel, it has become stream water, even if that channel only flows after a rain. Thus, even streams that only run during certain seasons or after major rainfall events (sometimes called “intermittent streams”) are still definite streams. Also, a definite stream that flows into a larger water body such as a lake is still defined as a “definite stream.” So, stream water can include water in ponds, lakes, reservoirs, and playa lakes.⁷ However, man-made farm ponds and “gully plugs” not located on definite streams and constructed under the supervision of Conservation Districts are not considered stream water.⁸

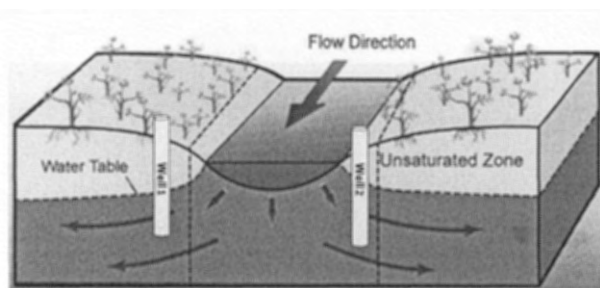
One aspect of defined streams that might come as a surprise is that they do not have to be on the surface of the land. All water under the surface of the land is presumed to be percolating groundwater.⁹ However, if an underground stream with defined beds and banks can be shown, the water in the underground channel will be considered stream water.¹⁰

Groundwater

The last type of water we will discuss is groundwater. As you might suspect by now, “groundwater” is defined as “fresh water under the surface of the earth regardless of the geologic structure in which it is standing or moving outside the cut bank of any definite stream.” Note two parts of this definition. First, groundwater is defined as “fresh water.”¹¹ The statute

that gives us this definition also defines fresh water as “water which has less than five thousand (5,000) parts per million total dissolved solids” (total dissolved solids is a measure of water quality scientists use to indicate how concentrated salts or other mineral particles are in a given sample of water). In other words, water that contains more than 5,000 parts per million of dissolved solids is defined as “salt water.”¹² There are no provisions for the allocation or use of salt water (though there are numerous regulations dealing with its disposal). If salt water is encountered while looking for other forms of water, care must be taken to prevent it from mixing with fresh water.¹³

Second, the language “standing or moving outside the cut bank of any definite stream” clarifies underground water near or underneath a stream is groundwater. Let’s look at the diagram below:



(Image courtesy USGS)

Oklahoma’s water law contemplates imaginary borders formed by the bed and banks of a defined stream. Even if we are not withdrawing water from within the bed and banks of the stream itself, we are still withdrawing water from the defined stream if our withdrawal point is within those imaginary borders. However, if we take water from outside those borders, we are taking “groundwater,” even if the water seeped into the ground from the stream.¹⁴ Thus, both Well 1 and Well 2 would be taking “groundwater.”

⁵ 82 OKLA. STAT. § 105.1 (1).

⁶ 82 OKLA. STAT. § 105.1 (1).

⁷ OKLA. ADMIN. CODE § 785:20-1-2.

⁸ 82 OKLA. STAT. § 105.2 (A); *Depuy v. Hoeme*, 1980 OK 26, 611 P.2d 228.

⁹ *Canada v. City of Shawnee*, 64 P.2d 694 (Okla. 1936).

¹⁰ 82 OKLA. STAT. § 1020.1 (1).

¹¹ 82 OKLA. STAT. § 1020.1 (1).

¹² 82 OKLA. STAT. § 1020.1 (7).

¹³ 82 OKLA. STAT. § 1020.15 (A)(7).

¹⁴ See M. Walker and D. Couch, “Oklahoma Environmental Law Handbook,” Chapter V, Section B, p.V-B-24 (Oklahoma Bar Association Environmental Law Section, 2009).

Oklahoma Diffuse Surface (“Runoff”) Water Law and Rules

Diffuse surface water (or “runoff” as it is referred to in the Oklahoma Water Law Handbook) is the only kind of water that can be truly owned without regulation of its use.¹⁵ As a result, a landowner can collect the runoff on his or her property and use it with relatively few restrictions.¹⁶ Most commonly, this collection is accomplished in one of two ways.

First, the landowner may dig a pond (sometimes called a “tank”) in a location that will allow



(Image courtesy NRCS)

If this collection method is used, and the construction was under the supervision and specification of a Conservation District, no approvals or permissions are needed, as long as the dam is not regulated under the Oklahoma Dam Safety Act.¹⁷

In the second collection method, a dam is placed across an existing streambed to create a pond that is used to collect the runoff. In some

cases, the streambed may be dry and in other cases, it may be an active stream.¹⁸

Once water enters a streambed – even a dry streambed – it is defined as a “definite stream” and is subject to a different set of rules than runoff. Oklahoma law contains a special provision for this circumstance, however. This provision allows a landowner to use an existing streambed to capture runoff in a streambed as long as they allow other forms of water to flow down the stream.

Let’s say you decide to build a dam across an active stream to create a pond that will help capture some of your property’s runoff. This means the pond now contains both runoff, and “definite stream” water. The owner of land crossed by a definite stream has the right to use some of the stream’s water, but they must also allow some water to pass through their property to downstream property owners. This means that the dam must allow the amount of water beyond what you are allowed to use to flow downstream.

Amount of water allowed to pass by dam

equals

The amount of stream flow into the pond

minus

(Landowner’s captured runoff + the amount of stream water landowner may use)

¹⁵ 60 OKLA. STAT. § 60.

¹⁶ The reader should note, though, that there are many regulations that govern pollution of runoff. For more information on these laws, refer to the Oklahoma Pollutant Elimination System Act (27A OKLA. STAT. § § 2-6-201 through 2-6-206) and the Oklahoma Administrative Code, title 252, chapter 606.

¹⁷ 82 OKLA. STAT. § 110.4, OKLA. ADMIN. CODE § 785:25-3-1.

¹⁸ See 60 OKLA. STAT. § 60(A), which states “...nothing contained herein shall prevent the owner of land from damming up or otherwise using the bed of a stream on his land for the collection or storage of waters in an amount not to exceed that which he owns, by virtue of the first sentence of this section so long as he provides for the continued natural flow of the stream in an amount equal to that which entered his land less the uses allowed for domestic uses and for valid appropriations made pursuant to Title 82 of the Oklahoma Statutes.”

Oklahoma Stream Water Law and Rules

Many people ask who “owns” stream water (i.e. water in a “defined stream”) in Oklahoma. The answer is that stream water is actually a *public* resource, owned by the people of Oklahoma.¹⁹ As a result, you may not *own* stream water, but you may have the right to use the stream water.

The process for determining who holds rights to stream water is much more complicated than determining who can use runoff water. There are two main ways someone can get the rights to use stream water. The first is by owning the land that surrounds a stream or is bordered by a stream. We refer to these landowners as “riparian” owners (“riparian” simply refers to land that runs along the banks of a stream). The second is to get an “appropriation,” or permit, from the OWRB to use stream water.

Domestic Use by Riparian Landowners

Riparian owners have property rights to use some stream water for “domestic use.”²⁰ As long as domestic use is the only use made of the stream water, the riparian owner does not need a permit to use it. So what does “domestic use” mean? Under Oklahoma law, domestic use includes the use of water for:

1. Household purposes;
2. Producing farm and domestic animals (so long as the number of animals using the water is no more than the land could support in a natural grazing system); and
3. Irrigation of land for the growing of gardens, orchards and lawns, but only up to three (3) acres in area.²¹

¹⁹ See 60 OKLA. STAT. § 60. Some Indian tribes in Oklahoma have claimed ownership to all water within their historic tribal boundaries.

²⁰ 60 OKLA. STAT. § 60, 82 OKLA. STAT. § 105.1. See also OKLA. STAT. § 105.1A and *Franco-American Charolaise, Ltd. V. Oklahoma Water Resources Board*, 855 P.2d. 568 (Okla. 1990)

²¹ 82 OKLA. STAT. § 105.1.

Following are some examples of what does and what does not qualify as “domestic use” for a household:

<i>Domestic use; Permit NOT required</i>	<i>Non-domestic use; Permit REQUIRED</i>
Drinking water for household use	Bottling stream or spring water for sale
Watering of grazing livestock	Watering livestock in a feedlot or other confinement operation
Irrigation of garden, three (3) acres or less in size	Irrigation of cropland, orchard, or grassland greater than three (3) acres in size

Agricultural use is one of the most common uses of stream water, but they are often misunderstood. For example, many people think that as long as they own land adjoining a stream, they can use the stream water for irrigation or for watering livestock in a feedlot, but this is incorrect. These uses require an appropriation of stream water from OWRB using the procedure discussed later in this chapter.

Another common misunderstanding is that only households can make “domestic use” of water. Businesses and other non-household entities can use stream water if they own land adjoining a stream. They do not need an appropriation if their uses fit within one of the following categories: (1) drinking water, (2) restroom use, and (3) the watering of lawns. Businesses using water for these purposes must keep their use to less than five (5) acre-feet per year.²² Following are some examples of what does and what does not qualify as “domestic use” for a business:

²² OKLA. ADMIN. CODE 785:20-1-2.

<i>Domestic use; Permit NOT required</i>	<i>Non-domestic use; Permit REQUIRED</i>
Drinking water for employees	Bottling water for sale
Restroom use	Car washing, industrial cleaning
Watering lawns	Irrigation for a turfgrass operation

No fixed limit exists for how much water a riparian owner can consume for domestic use. Courts have, however, limited the definition of domestic use to an amount that “does not substantially or materially injure those riparian owners downstream who have a corresponding right.”²³ In other words, a riparian owner can use as much water as needed for their domestic uses, so long as that use does not leave other downstream riparian owners without the amount of the water they need for their domestic uses.

Appropriating Water Use Rights

If someone wants to use stream water for something that is not a domestic use, or if they do not own land next to a stream, then they must get an “appropriation” from OWRB. The application process can involve a significant amount of homework, but proper preparation can make it go much smoother. Let’s examine this process step-by-step.

Step 1: Calculate the amount of water needed.

While this might seem like an obvious step, many people either overlook this (“I just need some water – I don’t know how much”) or don’t know how to estimate the amount of water needed for the activity in question (“How can I possibly know in advance how much water I will need?”). Fortunately, there are a number of resources available to help you estimate the water needed for various activities. For example:

- Irrigation Water Measurement - [http://pods.dasnr.okstate.edu/docushare/dsweb/Get/](http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2225/BAE-1502web.pdf)

²³ *Franco-American Charolaise, Ltd. V. Oklahoma Water Resources Board*, 855 P.2d. 568,575 (Okla.1990). See also M. Walker and D. Couch, “Oklahoma Environmental Law Handbook,” Chapter V, Section B, p. V-B-6 (Oklahoma Bar Association Environmental Law Section, 2009).

[Document-2225/BAE-1502web.pdf](http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6022/PSS-2140web.pdf).

- Fate of Precipitation Falling on Oklahoma Cropland - <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6022/PSS-2140web.pdf>
- Determination of land use and irrigated crop acres by remote sensing - http://pubs.usgs.gov/wri/wri034155/pdf/section_2.pdf
- Oklahoma Mesonet AgWeather Models - <http://agweather.mesonet.org/>

Additionally, you may be able to get assistance through your local Oklahoma Cooperative Extension Service office, the USDA Natural Resources Conservation Service office for your county, your rural water district, the OWRB, or other agencies. Once you have calculated the amount of water needed, you will also need to calculate the rate at which the water will be needed (i.e. the flow your use of the water will require, measured in gallons per minute).

You should consider what type of permit is will needed. The OWRB has six different types of appropriations:

Regular: The allows you to get a particular amount of water from a particular source on a year-round basis, and it lasts as long as you continue using the water. This permit basically grants the permit holder a permanent right to the water, subject to the restrictions discussed in this chapter for appropriated water.

Seasonal: Similar to a regular permit, but allows you to divert available water for a specific time period during the year instead of year-round.

Term: This allows you to use a certain amount of water for a term of years. The holder of this permit must cease using the water at the end of the term (compare this to the Regular or Seasonal permit, which can be permanent in some cases).

Temporary: Allows the permit holder to have a certain amount of water from a certain source for a period of time less than three months. The permit holder does not have any permanent right to the use of the water, and after the three months is up, they cannot use the water anymore.

Provisional temporary: This is a permit that is authorized by the Executive Director

of the OWRB for a period less than 90 days. No hearings are held, no application notice or data are published and no notice to surface estate owners is required on applications for this type of permit. It is not renewable and does not give any permanent right. This permit uses a special form – “Surface Water Application for 90-Day Provisional Temporary Permit,” Form SW T7010/07-00, which carries a \$150.00 application fee and is most frequently used for oil and gas operations.²⁴

Limited Quantity: Limited quantity permits are administered by the Executive Director of the OWRB in a very abbreviated application procedure. The Executive Director of OWRB can issue a regular, seasonal, temporary, or term permit to use up to 15 acre-feet of water in the year or term of the permit.

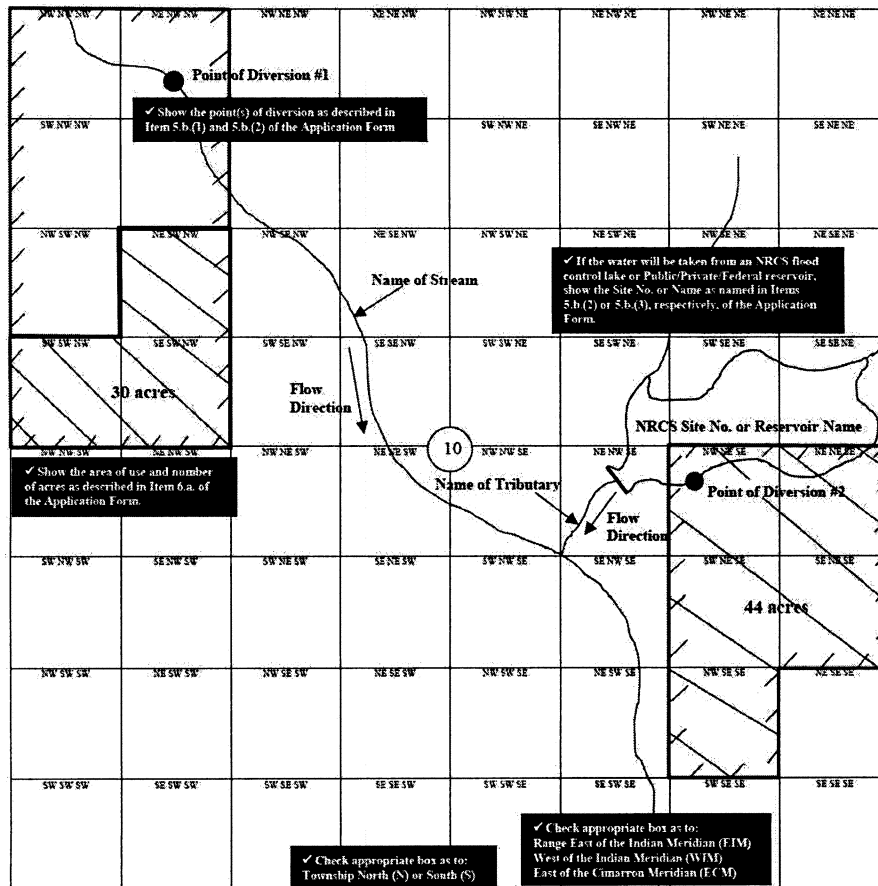
²⁴ M. Walker and D. Couch, “Oklahoma Environmental Law Handbook,” Chapter V, Section B, p. V-B-32.

The calculations you complete in Step 1, along with what you know about how and when you will use the water, will help you determine which kind of permit you need.

Step 2: Design your water works.

Now that you have determined how much water is needed, you will design your “water works.” Water works is the term used to describe the land and equipment (such as dams, channels, piping, pumps, etc.) that will transport the water from the stream to the place where it will be used.

Once your water works is designed, you will need to prepare a diagram showing the location where the water will be taken from the stream, pond, reservoir, or other water body – this diagram is called a “plat.” This plat should also show the direction of flow for the streams in the area, the area of land that you own, the area where the water will be used, and any other important features in the area. Here is an example of a plat for an OWRB Stream Water Appropriation:



(Image courtesy OWRB)

As you plan the layout of your water works, be sure you can draw it on the plat provided with the application discussed in Step 4 below. The application plat will show one section (640 acres) of property, broken into ten-acre blocks.

Step 3: Secure access to the stream.

Another important step in the application process is getting permission to access the stream. If you are a riparian landowner, this is not a problem, as you already own land adjoining the stream. However, if applying for an appropriation because you are not a riparian landowner, you will have to negotiate an "easement," which is an agreement with the owner of the land crossed to access the stream for the water works. Since an easement is an important document that affects the property rights of both the person who owns the land near the stream and the person who will be using the water, get the help of an attorney in drafting the easement.

Once you have negotiated access to the stream, you will also need to document the agreement with a "Right of Access for Stream Water Use" form provided by the OWRB. This form can be obtained at http://www.owrb.ok.gov/supply/watuse/pdf_wat/sw_access.pdf.

Step 4: Prepare an "Application for Permit to Use Surface or Stream Water."

Once you have completed those steps, it's time to start working on the permit application itself. For a Regular, Seasonal, or Term permit, the form used by OWRB is the "Application for a Permit to Use Surface or Stream Water," Form 503/5-08. The application is available on-line at http://www.owrb.ok.gov/supply/watuse/pdf_wat/app_sw.pdf, or you can get a copy by calling OWRB at (405) 530-8800. The application must be filled out completely and accurately, and must be typewritten or in ink.

Along with the application, you will also be required to provide an application fee to OWRB that is based on the amount of water you want to appropriate:

<i>Amount of Water Requested</i>	<i>Fee</i>
0 - 320 acre-feet	\$190.00
321 - 640 acre-feet	\$300.00
641 - 1500 acre-feet	\$375.00
More than 1500 acre-feet	\$375.00 + \$150.00 for each 500 acre-feet (or any increment thereof) more than 1500 acre-feet. (maximum fee is \$3,000.00)

Part 1 of the application consists of your contact information including your name, address, and phone and fax numbers.

Part 2 of the application will ask for the kind of permit you seek (refer to the discussion of the different kinds of permits in Step 2 above).

Part 3 of the application will ask for the amount of water you are requesting (in acre-feet) and the rate you will be taking the water (in gallons per minute).

Part 4 of the application will ask you to list all the uses of the water for which you have applied. For example, if you are asking for a total of 150 acre-feet with 100 acre-feet of that amount to be used for irrigating an alfalfa field and 50 acre-feet to be used for a confined livestock operation, each use needs to be listed separately. Be sure the total of all your listed uses equals the total amount of water requested in Part 3. For requests of water that will be used to irrigate crops, the specific crops to be irrigated must be listed.

Part 5 of the application will ask for details of your plan to get the water from the point where you are taking it from the stream, pond, reservoir, etc. You will need to provide the location of the "diversion point" (that is, the location where you will be taking water from the stream for your water works) and the name of the water body from which the water will be taken – be sure that this is the "official" name of the water body and not just the local name for the water body. If the body has no name, it can be left as an unnamed body, such as "unnamed tributary of Wolf Creek." Should you need some help with the legal description of the locations involved,

consult OSU Fact Sheet AGEC-9407, "Legal Descriptions." You can also use the OWRB's Water Map server at <http://www.owrb.ok.gov/maps/server/wims.php> to help you get a better view of your land and the water resources nearby. Part 5 will also ask for details of how the water will be transported from the diversion point to where the water will be used. If you don't own the land where the diversion point and/or water works will be located, you will need to provide the "Right of Access for Stream Water Use" form discussed in Step 3 above.

Part 6 of the application asks you to detail the legal description of the area of use for the water requested. If the use of the water is for the irrigation of crops, a copy of the deed or lease for the irrigated property must also be provided.

Part 7 of the application will ask for the completed plat discussed in Step 2 above. On the plat, draw a basic map of the water resources in the area, the land where you will use the water, and the configuration of your water works.

Part 8 will ask for the "justification" of the amount of water requested. If applying for irrigation water, this step is not required, as you will have already provided the information required in Part 4 of the application. If applying for water for another use, you will be required to provide the methods, calculations, and information you relied upon when you were calculating how much water you need.

The final part of the application is where you will sign. But first, you must figure out who is responsible for signing:

<i>If the entity applying for the appropriation is...</i>	<i>...then the party(ies) who need to sign is(are):</i>
An individual person	The individual
A husband and wife	Either spouse (or both may sign)
A general partnership	All the partners
A limited partnership, corporation, LLC, trust, estate, government agency, or other any type of entity	The entity's "authorized agent" – usually the company's manager or president, the trustee of a trust, executor of the estate, etc.

Timing of the Application and its Affect on Priority to the Water

It is important to complete the application as soon as you can determine the need for the water. When the OWRB must allocate water due to drought conditions or other shortages, the priority use of water goes first to the riparian owners for domestic use. Next in priority will be the oldest appropriations (with the date of an appropriation being set as the date a complete and correct application is filed).²⁵ Thus, filing your application sooner rather than later can help give you a higher priority to the water.

On the other hand, it is important to only apply for water when it is needed, rather than "speculating" in water (i.e., applying for water rights "just in case" you might need it later). If you do not use all the water that has been appropriated, you will forfeit the remaining amount of water in the future. The OWRB examines water use on a seven-year cycle for this purpose. For example, if you appropriate the right to use for 300 acre-feet of water, and during the next seven years, you only use 200 acre-feet, you will only be allowed to use 200 acre-feet for the remainder of your appropriation, and the remain-

²⁵ 82 OKLA. STAT. § 105.2(B).

ing 100 acre-feet (300 acre-feet appropriated – 200 acre-feet used) will revert back to the state.²⁶ However, if you can prove the circumstances for not using the water were beyond your control, you may be able to keep your water rights.

The Appropriation Process

Although it will save time to complete the application correctly the first time, don't get too anxious. If there are any major problems with the application due to problems with the form or feasibility of the plan, the OWRB will return the application with a list of the changes needed.

²⁶ O.S. §105.17.

You will then have 60 days to make the corrections.²⁷ If you don't correct and resubmit it within 60 days, the OWRB will consider your application withdrawn and you lose your original priority date. You can file the application again, but it will be treated as a new application on the new date of filing.²⁸

Publishing Notice / Submitting Proof of Publication: If the OWRB deems your application complete, they will send you instructions on how to publish a notice of the application. The instruction notice will likely look like this:

²⁷ OKLA. ADMIN. CODE §785:20-3-9(a).

²⁸ OKLA. ADMIN. CODE §785:20-3-9(c).

RE: Stream Water Application No. XXXX

Dear Mr. Pete:

Your application to use stream water has been reviewed by Board staff. In order to obtain a permit, you must provide notice of the essential facts about your intended use by newspaper publication.

In accordance with 82 O.S. 2001, Sec. 105.11, we have enclosed Notices of Application to be published at your expense in newspapers having a general circulation in the county of your point of diversion, Tulsa County, and the adjacent downstream county, Rogers County. The notice must appear in the newspapers once a week for the two consecutive weeks beginning on February 1 and February 8. Please send us or have the publishers forward the copy of the Certified Proof of Publications within fifteen (15) days after the last publication date. Because the Board is not responsible for the form, content or accuracy of the enclosed notices, please review the notices and contact this office if you note any errors.

If your application is protested, we will notify you and schedule a hearing. If you have any questions concerning this matter, please contact Mary Nell Brueggen at the address below or call (405) 530-8800.

Sincerely,

Julie Cunningham, Chief
Planning & Management Division

mnb

Enclosures

The notice describes: (1) the amount of water that will be used, (2) for what purpose, (3) where it will be taken from, (4) the name and address of the applicant, and (5) if there will be a hearing on the application.²⁹ The notice must be posted for two consecutive weeks in a newspaper distributed in the area that will be affected by the use of the water (some people refer to this as a county "newspaper of record" or a "legal newspaper"). After the notice has been printed, you must submit proof to the OWRB that the notice was printed. Many newspapers will provide you with a form used for this proof. For help on

preparing the notice and finding the newspaper that serves your county, visit the Oklahoma Press Association website at <http://www.okpress.com/legal-notice-guide> and click on the "Legal Notice Guide" link. Click on the "List of Members" link and then go to the "Business Members" for a list of newspapers that meet the definition of a "legal newspaper." Once you have completed the publication notice, submit your proof in a form that will look something like this example (and although the provided example shows a ground water permit notice, the form will be quite similar for a stream water appropriation:

²⁹ 82 OKLA. STAT. § 105.11.

NewsPress

PROOF OF PUBLICATION

STATE OF OKLAHOMA)
) SS.
 COUNTY OF PAYNE)

ANGELA C TINKER

of lawful age, being duly sworn and authorized, says that she is the authorized agent of the Stillwater NewsPress, a daily newspaper printed in the City of Stillwater, Payne County, Oklahoma, a newspaper qualified to publish legal notices, advertisements, and publications as provided in Section 106 of Title 25, Oklahoma Statutes 1971, as amended, and complies with all other requirements of the laws of Oklahoma with reference to legal publications.

That said notice, a true copy of which is attached hereto, was published in the regular edition of said newspaper during the period and time of publication and not in a supplement, on the following dates:

July 27, August 3, 2009

Angela C. Tinker

Subscribed and sworn to before me this 3rd day of August, 2009.

Shelley J. Dryden
 Notary Public

My Commission Expires: June 30, 2012
 No. 08006780



Publication Fee: \$118.89
 App 2009-503

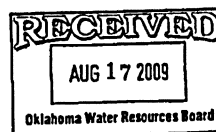
(Published in the Stillwater NewsPress July 27, August 3, 2009-2)

NOTICE OF APPLICATION TO USE GROUNDWATER
 Leo and Arleta Whitmore c/o Wayne Whitmore of 10320 West 140th, Coyle, OK 73027 have filed an application, #2009-503, with the Oklahoma Water Resources Board (Board) for permit to use 180 acre-feet of groundwater per year. The groundwater is proposed to be used for irrigation (44 a.l.) and mining - primarily drilling and completion of oil & gas wells (116 a.l.). The water will be taken from 80 acres located in the W2 SW of Section 10, T17N, R18E, Payne County. The water is to be withdrawn from one well in the NW SW SW of the same Section 10. The applicants propose to use the groundwater in Payne County, Oklahoma. Use of groundwater is governed by Sections 1020.1 and following of Title 82 of the Oklahoma Statutes and rules of the Board, Oklahoma Administrative Code (OAC), Title 785, Chapter 30.

Protests to the application must be in writing and received by the Board at the address listed below and by the applicant at the address listed about no later than August 24, 2009, and contain the following: (1) name, address, and telephone number of the interested person; (2) the particular application number to which the protest relates; (3) specific information to show how approval of the application proposed may directly and adversely affect legally protected interests of the person filing the protest; and (4) a statement the relief sought by the interested person. A person who sends a letter containing only a general objection or comment will not be deemed to be

a party, but the letter will be made part of the permanent record.

If a person that meets the requirements listed in the paragraph above is filed with both the applicant and Board, a hearing on this application will be scheduled and the applicant and protestant(s) will be advised of the hearing date. Protestants or their representatives must appear at the hearing and present the protest to be considered. Hearings are governed by Section 309 of Title 75 and Section 1020.8 of Title 82 of the Oklahoma Statutes, and the rules of Board, OAC title 785, chapters 4 and 30. If you have any questions, please contact Mary Not Brueggen at (405) 530-8800. Board mailing address: Oklahoma Water Resources Board, Planning & Management Division, 3800 N. Classen Blvd., Oklahoma City, OK 73118-2881. Board fax number (405) 530-8900.



Hearings on the Application: After notice of the application is published, the public is given an opportunity to protest the application. A protest may not be made by just anyone. To protest an application, someone must have an "interest" in the application.³⁰ This means that the party filing the protest must have some claim to water in the area that will be affected if your appropriation is granted (for example, they may already have a stream water appropriation themselves). If the OWRB finds that the protest is valid, it may schedule a hearing where you

³⁰ 82 OKLA. STAT. § 105.11.

may present evidence in support of your appropriation request, and the protesting party may present evidence supporting its request for a denial of the appropriation.³¹ The OWRB will consider the information gathered at the hearing in making its decision on whether to grant the requested appropriation.

Application Decision: To make a decision about whether to grant the appropriation of water rights, the OWRB must evaluate the following four factors:³²

³¹ See OKLA. ADMIN. CODE § 785:20-5-3.

³² OKLA. ADMIN. CODE § 785:20-5-4(a).

<i>Factor</i>	<i>Meaning</i>
(1) Unappropriated water is available in the amount applied for;	There is enough water available in the water body from which you will be drawing to supply the amount you requested.
(2) The applicant has a present or future need for the water and the use to which applicant intends to put the water is a beneficial use;	"Beneficial use" is a very broad term that includes almost any positive use of the water and prevents the waste or pollution of the water. The OWRB may consider whether there are other sources of water that would be more suitable to the request, including other streams or groundwater.
(3) The proposed use does not interfere with domestic or existing appropriative uses; and	Approving the request will not cause a hardship to other users of the water body.
(4) If the application is for the transportation of water for use outside the stream system wherein the water originates, the provisions of [Oklahoma Administrative Code] Section 785:20-5-6 are met.	If the water is going to be transported from one watershed to another, additional requirements will have to be met before the appropriation is approved.

If all of these requirements have been satisfied, then the OWRB will issue a permit to appropriate the water.³³ The permit will contain many of the same items that were submitted in your application – the only difference is that those items will now become *requirements*. For example, the amount of water requested per year now becomes the maximum amount of water that can be used, the uses you requested are now the uses to which you are limited in using the water, and so on.³⁴

Once the permit has been issued, the clock begins to run on two items. First, you have two years to start building the water works proposed in your application to get the water from the water body to your land.³⁵ Additionally, you have seven years to put the full amount of water to use or else you run the risk of your appropriation being reduced to the amount of water you have

actually used.³⁶ If there is a reason the water cannot or should not be used in the full amount before the seven-year period is over, a request for a modification of the “use scheduling” of the water can be made to the OWRB (in other words, the OWRB may modify the amounts of water used under your appropriation and the dates those amounts are used).

Water Use Reporting: The use of the water must be provided to the OWRB in the form of an annual use report. The OWRB will mail these annual use report forms to its permit holders, and those reports must be completed within 30 days of being received. If these reports are not completed, the OWRB may assume that you have not used the water under your appropriation and, as a result, may reduce the amount of water you are permitted to use.³⁷ Your water use report for stream water will look like this:

³³ OKLA. ADMIN. CODE § 785:20-5-4(b); 785:20-5-9.

³⁴ OKLA. ADMIN. CODE § 785:20-5-2.

³⁵ OKLA. ADMIN. CODE § 785:20-9-1(a)(1).

³⁶ OKLA. ADMIN. CODE § 785:20-9-2(a).

³⁷ OKLA. ADMIN. CODE § 785:20-9-5(a)(1).



OWRB No. 010071

**2008 ANNUAL SURFACE WATER USE REPORT
- IRRIGATION / AGRICULTURE**

Page 1 of 2

ATTN: TRAVIS LEVINGS
COWBOY GOLF, INC
1800 S MEMORIAL DR
STILLWATER, OK 74074-1072

Water Right Information	WATER RIGHT NO.	19920025	FACILITY	SCS Site #46 Stillwater Cre
	COUNTY	Payne	SOURCE	
Legal Description of Diversion Points	NE NW NW 27 19N 01E1			
Legal Description of Land	W2 22 19N 01E1		NW 28 19N 01E1	
Amount of Water Authorized	537.0 Acre Feet / Year			

SEE BACK FOR INSTRUCTIONS

- A. If you wish to cancel this water right, check this box.
- B. Check here if no water was used.
- C. Complete each column for all crops irrigated.

CROP	NUMBER OF ACRES IRRIGATED	NUMBER OF TIMES IRRIGATED	INCHES PER APPLICATION
1. ALFALFA			
2. CORN (GRAIN)			
3. CORN (SILAGE)			
4. COTTON			
5. HORTICULTURE CROPS			
6. PASTURE			
7. PEANUTS			
8. WHEAT			
9. OTHER SMALL GRAINS			
10. SOYBEANS			
11. SORGHUM (GRAIN)			
12. SORGHUM (FORAGE)			
13. OTHER (SPECIFY)			
<i>Intergrass</i>	<i>135</i>		<i>1/2"</i>

- D. If relying on another method to measure the amount of water used, indicate the method (meter, pumping rate and hours operated, etc.), the amount of water used and the units (acre-feet or gallons). Provide the number of acres irrigated for each crop grown in Part C.

Other measurement method *Meter*
Amount and units *160,000,000 gallons*

- E. Number of acres double-cropped *None*

- F. Check the type of power used.
- | | |
|---|---|
| <input type="checkbox"/> 1. PROPANE | <input type="checkbox"/> 3. NATURAL GAS |
| <input checked="" type="checkbox"/> 2. ELECTRIC | <input type="checkbox"/> 4. GASOLINE |
| <input type="checkbox"/> 5. DIESEL | |
- G. Check the type of system used.
- | |
|---|
| <input type="checkbox"/> 1. GRAVITY OR FLOOD |
| <input type="checkbox"/> 2. TRUCK/DROP |
| <input type="checkbox"/> 3. CENTER PIVOT SPRINKLER |
| <input checked="" type="checkbox"/> 4. SPRINKLER (OTHER THAN C-P) |
| <input type="checkbox"/> 5. SUB SURFACE |

H. Specify the gallons used for each purpose other than irrigation.

PURPOSE	AMOUNT IN GALLONS
<i>Recreation, Fish & Wildlife</i>	
<i>Reclamation of Watershed</i>	<i>5,000,000</i>

Sign and date the report. Please return within 30 days. See reverse side for name, address or ownership changes.

Travis Levings *Golf Course Superintendent* *(405) 742-3100* *1-9-09*
Signature of Water Right Holder or Authorized Agent Title Telephone Date

An Example of a Completed Application

Pistol Pete has some property in Tulsa County, and he decided he wants to start growing pecans on this land. To get some economic productivity from the land until his orchards are established, he will plant Bermuda grass in the orchard areas for grazing cattle. Pete has set aside 24 acres for his pecan/grazing operations. To get the yields he wants, he will need to irrigate his orchards. Fortunately for Pete, his land adjoins a stream. Reading the Oklahoma Water Law Handbook, Pete realized that using the water for 24 acres of orchards is not “domestic” use of the water. This means Pete must apply for a stream water appropriation. Let’s look at how Pete will work through this process.

Step 1: Calculate the Amount of Water You Need.

As we mentioned, Pete wants to grow 24 acres of pecan trees in Tulsa County. How can he determine how much water will be needed for this crop? First, he can go to the list of references contained in the Handbook to find resources that will help him estimate how much water his crops will need, rainfall his property may receive in an average year, and irrigation water he will need. In this case, Pete consulted the NRCS Irrigation Guide (and the Irrigation Guide supplements for Oklahoma). After a little homework, Pete figures out the following:

- Given the annual rainfall and evaporation for the location of his land and the water requirements for pecans with Bermuda grass as a cover crop, Pete will need 16 inches of supplemental water per year.
- Pete has decided to use a solid-set sprinkler system. Looking at the resources available for determining the efficiency of these systems in the climate of his property (how much water will be lost to evaporation, runoff, and other causes on his property given the humidity, temperatures, and soils of the area), Pete estimates his irrigation system would have an efficiency of 80 percent. Since that’s the case, Pete will actually need 20 inches of water for his crop (16 inches of water applied at an 80 percent efficiency means he will need to apply $16 \div 0.8 = 20$ inches of water to get 16 inches of effective water).

- Since Pete knows he needs to apply 20 inches of water to his 24 acres of cropland, he needs to convert that amount to “acre-feet” for the OWRB application. He carries out the following calculations:

- o $20 \text{ inches} \times 24 \text{ acres} = 480 \text{ acre-inches}$
- o $480 \text{ acre-inches} \div 12 \text{ acre-inches/acre-foot} = 40 \text{ acre-feet}$. This is the amount Pete would need in a normal year. Since Oklahoma weather is rarely “typical,” though, Pete does some additional research and runs his numbers for a drier-than-average year and determines that in such a year, he would actually need 24 inches of water per acre per year, or 48 acre-feet for the entire area.

Step 2: Design Your Water Works.

Now that Pete has identified how much water he needs for his orchards, he has to figure out how to get the water from the stream. Given the layout of his land along the stream, he thinks he can place a 200 gpm horizontal centrifugal pump in the stream flow, and pump the water to the fields using 6-inch pipe. This pipe will then connect to an irrigation-system at each of the two orchards. Pete plots out the system on an aerial photograph of the property. The dotted line represents the path of the stream, dashed lines represent the outlines of the fields, and solid lines represent the proposed route of the water pipeline.



Step 3: Secure Access to the Stream.

In our example, Pete owns the land next to the stream, so securing access to the stream won't be a problem for him. On the other hand, if Pete did not own land on the stream, he would have to negotiate an easement with the person who did own that property. The easement would give Pete permission to build his water works on the property and transport the water to his own property (if Pete didn't have such an easement, he would be trespassing on the other landowner's property).

Step 4: Prepare an "Application for Permit to Use Surface or Stream Water".

Now, Pete has to complete his OWRB application to appropriate the water he needs. First, he'll complete Section 1 of the application, which will include his contact information. Since Pete is preparing the application himself without a consultant or other party, he will only need to fill in the first portion, as shown below:

1. NAME AND ADDRESS		
<i>a. Print the applicant's full name and mailing address, complete with zip code. If the applicant is a corporation, use the name and business address of the corporation.</i>		
Applicant Name <u>Pistol Pete</u>	Phone <u>(405) 555 - 0000</u>	
	FAX# <u>(405) 555-0001</u>	
Address <u>101 Cowboy Way</u>		
City <u>Stillwater</u>	State <u>OK</u>	Zip <u>74078</u>
<i>b. If the contact during the application process is someone other than the applicant listed above, print the name and mailing address of the contact person.</i>		
Contact Name <u>N/A</u>	Phone () _____ - _____	
	FAX# () _____ - _____	
Address _____		
City _____	State _____	Zip _____

Next, Pete will fill in Section 2 of the application, which asks for the kind of permit Pete is seeking. Since Pete believes he will need the water year-round, and for the foreseeable future, he is seeking a "Regular" permit (see the discussion on permit types above).

2. TYPE OF SURFACE WATER PERMIT REQUESTED (Check one)
<input checked="" type="checkbox"/> Regular Permit - authorizes diversion and use of water on a year-round basis.
<input type="checkbox"/> Seasonal Permit - authorizes diversion and use of water for specified time periods during the calendar year.
<input type="checkbox"/> Term Permit - valid for a term of years and does not vest the holder with any permanent right. (Provide ending date for term permit _____).

Section 3 of the application requires Pete to indicate the amount of water requested for appropriation. He'll need to indicate both the total amount of water needed as well as the rate at

which the water will be taken from the stream. Remember, Pete is using a 200 gallon per minute pump for his water works, so we will use this as the rate he will be pumping the water.

3. AMOUNT OF WATER TO BE APPROPRIATED

State total amount of water applied for in acre-feet per calendar year. One acre-foot of water will cover one acre of land one foot deep and is equal to 325,851 U.S. gallons. The diversion rate is the maximum rate of withdrawal, in gallons per minute, of water from the pond, lake, spring or other definite stream.

Application is made to take and use 48 acre-feet of surface water annually at a rate not to exceed 200 gallons per minute.

Next, in Section 4 of the application, Pete will detail how the water is to be used. Since he is using the water for irrigation, he will indicate "irrigation" as the use in subsection 4.a., and will then detail the specific uses of that irrigation water in subsection 4.b. as shown here:

4. PURPOSE(S) FOR WHICH WATER WILL BE USED

a. List the purpose or purposes for which the water would be used if the permit is granted and list the number of acre-feet for each purpose. Be sure that the sum of the amounts listed below equals the total acre-feet in #3 above. If the water is to be used to irrigate crops, list IRRIGATION as the purpose and list the sum total acre-feet for all crops.

48 acre-feet of water will be used for IRRIGATION
 _____ acre-feet of water will be used for _____
 _____ acre-feet of water will be used for _____
 _____ acre-feet of water will be used for _____

OFFICE USE ONLY SIC CODES	

b. If the water requested is for irrigation purpose, state the total number of acres that will be irrigated. The land to be irrigated must be shown on plat(s) attached to the application. The amount of water requested should be based on types of crops to be grown and cropping patterns proposed. The Board will use appropriate publications and information the applicant submits in determining amount of water needed.

24 acres of land are proposed to be irrigated. The proposed crops are pecan orchards,
with Bermuda grass cover.

Section 5 of the application consists of several different subsections. Subsection 5.a. asks if the water requested in the application will be used "in place." In Pete's case, he will be pumping water out of the stream for use in another location, so he will not need to check the box for subsection 5.a. Since Pete will be taking water from the stream, he will need to complete subsection 5.b. of the application, which details how the water will be diverted from the stream (remember, the location where the water will be

withdrawn from the stream is referred to as the "diversion point"). Subsection 5.b. of the application first asks for information regarding each diversion point that will be used. Since Pete is only using one diversion point, he can simply use the portion of the application provided. If, however, he were using multiple diversion points, he would need to make additional copies of this portion of the application to provide information for each diversion point.

5. DIVERSION(S) OF WATER: Source, Location and Method of Diversion

a. If the water is to be used in a pond, lake or reservoir and will not be pumped or moved from one location to another, check here.

b. For each diversion point, state the amount of water, in acre-feet, to be diverted annually and give the legal description to the nearest ten (10)-acre tract. Also show the point(s) of diversion on the plat, as shown on the sample provided. If you are applying for more than one diversion point, then a photocopy of Section 5 shall be filled out completely for each additional diversion point and attached to the application. If the water is to be used in a pond, lake or reservoir and will not be pumped or moved from one location to another, then use the location of the dam or spillway as the point of diversion.

48 acre-feet of water will be diverted from:

SE 1/4 of SW 1/4 of NE 1/4 of Sec. 32 Twp. 21 N S Rge. 13 EIM WIM ECM in Tulsa Country

(1) If the water will be taken from a stream or spring, enter the stream or spring name. If the stream or spring is unnamed, enter as tributary of a named stream, such as "Unnamed tributary of Wolf Creek."

Direct diversion from stream: Bird Creek Name of Stream

Additional information is required about the diversion point, and this information is detailed in the remaining portions of subsection 5.b. Subsection 5.b.1 asks for the name of the stream from which the water will be taken. If the stream does not have a name, use the name of the named stream into which the stream in question flows (using the example in the application, if the stream flowed into Wolf Creek, we would use "unnamed tributary of Wolf Creek). In our

example, Pete is drawing water from a named stream, so he can simply use the name of the stream.

Subsection 5.b.2. asks if the water source is a Soil Conservation Service detention pond. Since Pete will draw his water from a stream, this section will not apply. If it did, we would need to indicate the site number for the pond, as well as the name of the watershed in which the pond was located.

(2) If the water will be taken from a Soil Conservation Service (S.C.S.) Detention Reservoir, enter the number of the site and the watershed name:

S.C.S. Site No. N/A Watershed Name _____

Subsection 5.b.3 applies if the source of the water is a reservoir. Again, since Pete will be taking the water from a stream, this section will not apply. If the water source was a reservoir, the name of the reservoir and the stream that forms

it would be needed, along with the completion date of the reservoir, its storage capacity (the amount of water it can hold, measured in acre-feet of water), its depth, and its surface area (the acreage of land area occupied by the reservoir).

(3) If the water will be taken from some other public or private reservoir, enter the name of the stream dammed and name of the reservoir if available. If the stream is unnamed, enter it as a tributary of a named stream, such as "Unnamed tributary of Wolf Creek."

Name of reservoir N/A on _____ Name of Stream

Reservoir is Existing (Date completed _____) Under Construction Planned

Storage of the reservoir: _____ acre-feet Average water depth: _____

Surface acres: _____ Yield: _____

Subsection 5.b.4. discusses the method that will be used to get the water from the stream to where it will be used. As discussed earlier, Pete is going to be using a 200 gallon per minute pump, so he will complete this section as follows:

(4) Method of Diversion:
If by gravity, enter the size and carrying capacity of the main canal or conduit and the size of headgate.
If by pump, enter the size, type and number of pumps, kind and horsepower of engine or motor, inlet and outlet size and the maximum capacity of each pump, in gallons per minute.

Method of diversion will be by: Gravity _____
Size, etc.

Pump 200 gallon per minute; horizontal centrifugal pump
Size, Type of pump, etc.

Subsection 5.b.5 will ask if the applicant owns the land where the diversion point is located. Remember, if the applicant does not own that land, then proof that they have permission from the owner of the land where the diversion

point will be located to build their water works on the other party's property must be provided along with the application. In our case, though, Pete does indeed own the land along the stream, and thus no permission must be shown.

(5) Do you own or lease the land on which the point of diversion will be located? Yes No *If available, attach a copy of the deed, lease, etc. showing the right to use the point of diversion. If not available, the permit, if issued, will contain a condition requiring submittal of a copy of the right before water use begins.*

Subsection 5.b.6 will ask if any of the lines, pipes, or other portions of the waterworks will cross any public right-of-ways or other property owners' parcels. Since Pete's waterworks will be located entirely upon his own property, he can check "no" for this question.

(6) Will water lines cross public right-of-ways or another landowner's property? Yes No *If yes, attach a copy of the easement. If not available, the permit, if issued, will contain a condition requiring submittal of a copy of the easement before water use begins.*

Section 6 of the application asks for a description of the land where the water will be used. It may not be possible to give the exact description of the area where the water will be used in Section 6, as the form will only allow for descriptions down to the "quarter of a quarter" section. This is fine, because we will also be in-

cluding a plat of the area that will allow us to show a precise representation of the property in question. For now, Pete will describe the two fields where the water will be used as closely as possible. Subsection 6.a. will provide for the legal descriptions of the property in question.

6. LEGAL DESCRIPTION OF AREA OF USE

a. Describe the legal description of the area of use below. Please do not use lots or blocks but convert to the nearest legal description. Also show this area on a plat as shown on the sample attached. Your local ASCS or NRCS office may provide you with an aerial photograph of your land. (Municipal and rural water entities refer to #8 below).

<u>14</u> acres <u>NW</u> <u>1/4</u> <u>SW</u> <u>1/4</u> of Sec. <u>32</u> Twp. <u>21</u>	N <input checked="" type="checkbox"/> S <input type="checkbox"/> Range <u>13</u>	EIM <input checked="" type="checkbox"/> WIM <input type="checkbox"/> ECM <input type="checkbox"/> of <u>Tulsa</u> County
<u>10</u> acres <u>NW</u> <u>1/4</u> <u>SE</u> <u>1/4</u> of Sec. <u>32</u> Twp. <u>21</u>	N <input checked="" type="checkbox"/> S <input type="checkbox"/> Range <u>13</u>	EIM <input checked="" type="checkbox"/> WIM <input type="checkbox"/> ECM <input type="checkbox"/> of <u>Tulsa</u> County
_____ acres _____ <u>1/4</u> _____ <u>1/4</u> of Sec. _____ Twp. _____	N <input type="checkbox"/> S <input type="checkbox"/> Range _____	EIM <input type="checkbox"/> WIM <input type="checkbox"/> ECM <input type="checkbox"/> of _____ County
_____ acres _____ <u>1/4</u> _____ <u>1/4</u> of Sec. _____ Twp. _____	N <input type="checkbox"/> S <input type="checkbox"/> Range _____	EIM <input type="checkbox"/> WIM <input type="checkbox"/> ECM <input type="checkbox"/> of _____ County

Subsection 6.b. (which applies if the water will be used for irrigation) will ask if the applicant owns or leases the property. If the applicant does own the property, they will need to provide either a deed (if the property is owned by the applicant) or a lease indicating that the applicant is the lessee. If the applicant doesn't own or lease the property, there are two alternatives: either the owner of the property where

the water will be used must make the application themselves, or the water appropriation will come with a restriction that states the water cannot be used until proof that the land has been purchased or leased has been provided to the OWRB. In our example, Pete owns the land, so he will indicate this in subsection 6.b. and will also attach a copy of his deed to the property with his application.

b. **FOR IRRIGATION ONLY** Do you own or lease this land? Yes No If yes, attach a copy of the deed or lease. If no, application should be made by the owner or the permit, if issued, will require that a deed or lease be submitted before use of water begins.

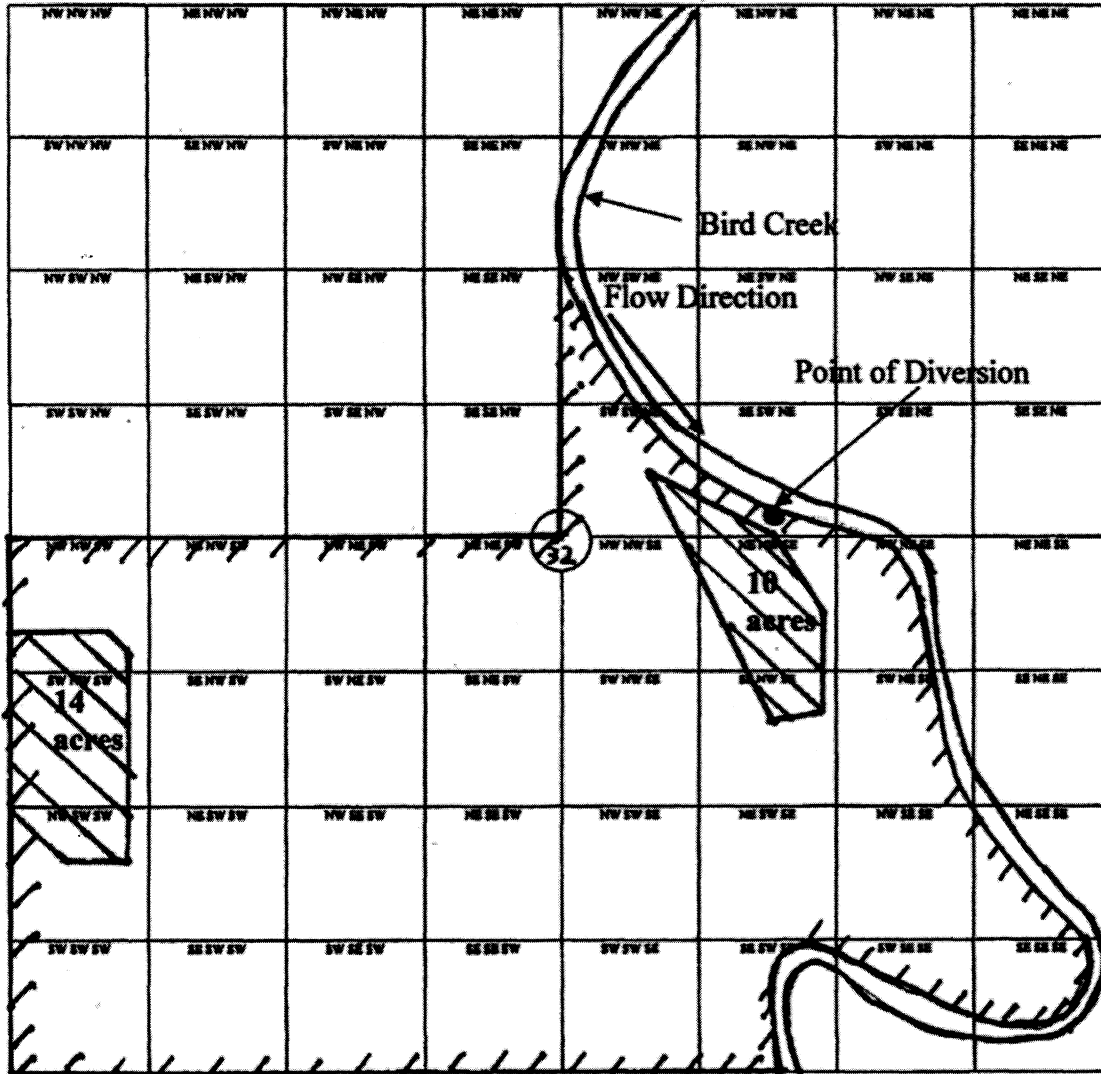
Section 7 of the application consists of a plat of the property that pulls together much of the information contained in Sections 4.b., 5, and 6 of the application, giving an overview of how the system fits together. Before starting the plat,

Pete gathers together the diagram he prepared based on the aerial photo of the property, and confirms the legal description of the property. All of this information will be important as he prepares the plat. When he is completed, Pete's plat looks like this:

Oklahoma Water Resources Board
Application Plat

Applicant Name PISTOL PETE

Stream Water Application # _____
Stream System Code _____ (office use only)



Legend:

- Point of Diversion
- ▨ Land Owned or Leased
- ▧ Area of Use

Section 32 Twp. 21 N S Rge. 13 EIM WIM ECM County Tulsa

Prepared by: Pistol Pete Date: XX/XX/XXXX
Signature

Title: APPLICANT

Oklahoma Groundwater Law and Rules

In many ways, the process for getting the rights to use groundwater is much like the process for getting the rights to use stream water. The differences between the two processes come mainly from the differences in the nature of the two types of water. While stream water can be found within the streams and the ponds, lakes, and reservoirs they form, groundwater is available almost anywhere in the state. Another important difference between groundwater and stream water is that stream water is basically viewed as a public resource owned by the state and people of Oklahoma, while groundwater is viewed more as a part of the property under which it can be found. Because groundwater is owned, the landowner (i.e. the owner of the property where it is located) is generally regarded as having the best right to use it. As with stream water, groundwater may be used by that property owner, or it may be used by someone who is in some other location away from the water source if that person obtains a lease from the landowner. Also, as with stream water, there are uses for which no permit is needed, and other uses for which a permit is required.

Before we discuss how you can get the rights to use groundwater, we should review what groundwater is (for a more detailed discussion, see "Understanding the Different Kinds of Water Addressed by Oklahoma's Water Law"). Groundwater is defined as "fresh water under the surface of the earth regardless of the geologic structure in which it is standing or moving outside the cut bank of any definite stream."³⁸ This means that underground water taken from a well within the banks of, or near, a stream is withdrawing groundwater, not stream water. Also, Oklahoma's groundwater laws specifically do not apply to "salt water" which is defined as water with more than five thousand (5,000) parts per million ("PPM") of total dissolved solids.³⁹ PPM is a measure water scientists use to de-

termine the amount of materials mixed in with a given volume of water – this is one way of determining the quality of the water. No groundwater use permit is necessary to use salt water, but care must be taken to prevent the mixing of salt water with fresh groundwater, as such mixing can be punishable as polluting fresh water.⁴⁰

Domestic Use by the Property Owner

Ownership of real estate carries with it a right to use the groundwater found beneath that real estate for "domestic use" without the need to apply for a permit. For the purposes of groundwater, domestic use is defined just as it is for streamwater. These uses include: (1) household purposes; (2) producing farm and domestic animals (so long as the number of animals using the water is no more than the land could support in a natural grazing system); and (3) irrigation of land for the growing of gardens, orchards and lawns, but only up to three acres in area.⁴¹ Following are some examples of what does and what does not qualify as domestic use for a household:

<i>Domestic use; Permit NOT required</i>	<i>Non-domestic use; Permit REQUIRED</i>
Drinking water for household use	Bottling water for sale
Watering of grazing livestock	Watering livestock in a feedlot or other confinement operation
Irrigation of garden, three (3) acres or less in size	Irrigation of cropland, orchard, or grassland greater than three (3) acres in size

One of the most common uses of groundwater in agriculture is for irrigation, and as you can see from the chart, irrigating cropland more than three (3) acres in size will require a groundwater permit from OWRB.

³⁸ 82 OKLA. STAT. § 1020.1(1), OKLA. ADMIN. CODE § 785:30-1-2.

³⁹ 82 OKLA. STAT. § 1020.1(7), OKLA. ADMIN. CODE § 785:30-1-2.

⁴⁰ 82 OKLA. STAT. § 1020.2.

⁴¹ 82 OKLA. STAT. § 1020.1, OKLA. ADMIN. CODE § 785:30-1-2.

As with stream water, groundwater can also be used by non-household entities like businesses. Such entities do not need a permit for groundwater if it is used for the following purposes: (1) drinking water, (2) restroom use, and (3) the watering of lawns. Businesses using water for these purposes must keep their use to less than five (5) acre-feet per year.⁴² An "acre-foot" of water is the amount of water that would cover an area of an acre with one foot of water. An acre-foot of water equals approximately 325,851 gallons. Following are some examples of what does and what does not qualify as "domestic use" for a business:

<i>Domestic use; Permit NOT required</i>	<i>Non-domestic use; Permit REQUIRED</i>
Drinking water for employees	Bottling water for sale
Restroom use	Car washing, industrial cleaning
Watering lawns	Irrigation for a turfgrass operation

There is not a fixed limit as to how much groundwater can be used by the owner of the property for domestic use (with the exception of the five [5] acre-feet limit for business entities).

Applying for a Groundwater Use Permit

Just as with stream water, if you want to use groundwater for a use that does not fit the definition of "domestic use," you will need a groundwater use permit from the OWRB; in fact, you will need to have an approved permit before you begin drilling any wells for non-domestic uses.⁴³

Let's go through the steps you will need to follow to complete the OWRB groundwater permit application.

Step 1: Calculate the amount of water needed.

Think hard about how you will use the groundwater you want. How much water will you need?

⁴² OKLA. ADMIN CODE. 785:30-1-2.

⁴³ 82 OKLA. STAT. § 1020.7.

How will that water be used? You can use the following resources to help you figure out how much water you may need for a given purpose:

- Irrigation Water Measurement - <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2225/BAE-1502web.pdf>:
- Fate of Precipitation Falling on Oklahoma Cropland - <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6022/PSS-2140web.pdf>
- Determination of land use and irrigated crop acres by remote sensing - http://pubs.usgs.gov/wri/wri034155/pdf/section_2.pdf
- Oklahoma Mesonet AgWeather Models - <http://agweather.mesonet.org/>

Step 2: Understand your groundwater resource.

Groundwater resources may be more difficult to understand for the obvious reason that we can't see it. As a result, we have to rely on other sources of information to tell us about the amount of water that may be available at our location. One tool that can help is the OWRB Water Information Mapping System, available at <http://www.owrb.ok.gov/maps/server/wims.php>. Using the Map Viewer, you can view the groundwater aquifers (an "aquifer" is a geological formation that may contain water) in your area, and can look for groundwater wells around your property – the records from these wells may help you understand how deep to dig to reach groundwater in your location and how much water may be available from such wells.

Understanding the groundwater resources is important because you will need to determine if a groundwater well (or a system of wells) will be able to provide enough water for your intended use. It also helps determine what kind of groundwater use permit is needed. Let's look at the different types of permits that are available:⁴⁴

Regular: A simple permanent permit that allows you to get a particular amount of groundwater on a year-round basis, and it lasts as long as you follow the terms of your permit. Note: this permit cannot be issued until after the hydrologic survey and the maximum yield of the groundwater basin reached by your well has been determined. For more information on completed

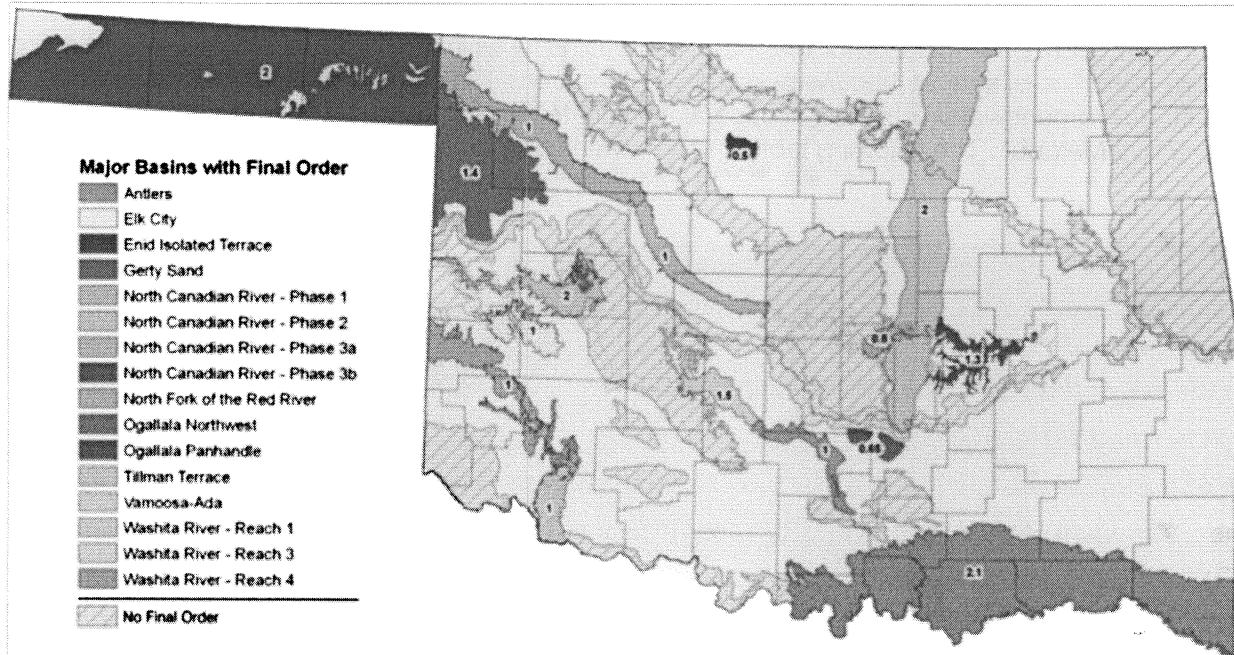
⁴⁴ Each permit type is set forth at 82 OKLA. STAT. § 1020.11.

maximum annual yield surveys, consult the OWRB Fact Sheet "Determination of Maximum Allowable Yield," available at http://www.owrb.ok.gov/studies/groundwater/arbuckle_simpson/pdf/DetermineMAY.pdf. The following table and

map from the Fact Sheet show the groundwater basins for which maximum yields have been determined. The column "EPS" (for "equal proportionate share") indicates how many acre-feet of water may be requested in a permit per acre of dedicated land.

GROUNDWATER BASIN	FINAL ORDER	EPS*	MAY**
Tillman Terrace	12/12/1978	1	189,760
North Fork of the Red River Alluvial and Terrace	09/08/1981	1	343,042
Enid Isolated Terrace	11/09/1982	0.5	26,000
Elk City Sandstone	11/09/1982	1	157,440
North Canadian River Alluvium and Terrace--Phase 1	08/08/1983	1	426,000
Gerty Sand Isolated Terrace	09/12/1989	0.65	28,112
North Canadian River Alluvium and Terrace--Phase 2	04/10/1990	1	211,840
Washita River Alluvium and Terrace--Reach 1	11/13/1990	2	120,320
Washita River Alluvium and Terrace--Reach 3	11/13/1990	1.5	81,840
Washita River Alluvium and Terrace--Reach 4	11/13/1990	1	46,935
Vamoosa-Ada	05/06/1991	2	2,968,000
North Canadian River Alluvium and Terrace-- Phase3A	02/14/1995	0.8	48,128
North Canadian River Alluvium and Terrace--Phase 3B	02/14/1995	1.3	138,944
Antlers Sandstone	02/14/1995	2.1	5,913,600
Ogallala - Panhandle	03/12/2002	2	2,285,212
Ogallala - Northwest Region	03/12/2002	1.4	1,198,512

*EPS=Equal Proportionate Share (denoted in acre-feet); **MAY=Maximum Annual Yield (denoted in acre-feet)



While the OWRB has been working to complete these hydrologic surveys, there are still several groundwater basins that have not been surveyed. Because many basins do not have hydrologic surveys completed, “regular permits” may not be available for many areas. Thus, a “temporary permit” may be the best option for someone in need of groundwater use rights. For more information on Oklahoma’s hydrologic resources, you can visit the following links from the U.S. Geological Survey:

<http://ok.water.usgs.gov/infodata/gisdata.html>
<http://pubs.usgs.gov/of/2003/ofr-03-247/>

Temporary: A permit granting the use of water for a temporary period of time. A “temporary” permit is much like a “regular” permit, but “temporary” permits can be issued for groundwater basins even if an OWRB hydrologic survey has not been completed for the basin. Additionally, temporary permits must be revalidated every year for as long as the permit lasts. The total amount of water granted under a temporary permit cannot exceed two (2) acre-feet per acre of land dedicated to the permit, unless special circumstances are recognized by the board. For example, if a landowner wanted to obtain ten

(10) acre-feet of groundwater, he or she would have to dedicate five (5) acres of land to the permit (2 acre-feet of water per acre of property dedicated x 5 acres = 10 acre-feet of water). Dedicating land to a permit means obtaining the quantity of groundwater allocated to the land acreage described in the permit as owned by the landowner (or the applicant must have the actual owner’s permission to use its groundwater).

Special: A permit that can be applied for in addition to a regular permit or a temporary permit to add more water to total amount allowed under the permit. This permit is issued only under special circumstances as determined by OWRB. The permit can only be used for the specific purpose that is outlined in the permit. After that use is completed, the permit expires, and another permit cannot be issued for the same purpose. Special permits are limited to six months, and can only be renewed three times.

*Provisional Temporary:*⁴⁵ A permit that is authorized by the Executive Director of the OWRB for use of groundwater for a period less than 90 days. No hearings are held, no application notice or data is published and no notice to surface

⁴⁵ Provisional Temporary permits are discussed at OkLA. ADMIN. CODE § 785:30-5-4.

estate owners is required on applications for this type of permit. It is not renewable and does not give any permanent rights to groundwater use. The most common use of these permits is for the short-term use of water in drilling oil and gas wells.⁴⁶

*Limited Quantity.*⁴⁷ This permit is administered by the Executive Director of the OWRB without the consent of the entire Board. The Executive Director can issue a regular permit to use fifteen (15) acre-feet of water in the year or term of the permit. The person applying for this permit must notify all the other landowners within 600 feet of the proposed well that an application for a Limited Quantity permit has been made. Neighboring landowners wishing to protest the permit have ten (10) days to protest to the OWRB.

Consider where the groundwater well (or wells) will be located, and where the water will be used. As you complete your application, you will need to diagram both of these locations, as well as discuss your groundwater system. We'll discuss this in more detail in Step 3 below.

What if the water is underneath land that is not yours? Is it possible to acquire groundwater from someone else's property? The answer is

yes, as long as you have the appropriate type of agreement with the landowner. Under Oklahoma law, a groundwater use permit can only be issued to someone if they can provide proof that they either "own" or "lease" the land where the well will be located, along with the land where the well is located.⁴⁸ If you don't own the land to be used for the groundwater, you must provide a copy of the lease or other agreement giving you permission to extract the water along with your application.

Step 3: Design Your Water Works.

Now you need to design the system used to extract the water and get it to where it will be needed. We call this system the water works. In cases when the groundwater well can be located at the same site where the water will be used, this system may be fairly simple, but if the groundwater well is located at a site far away from where the water will be used, more factors must be considered.

As mentioned above, once you have a design in place, you will need to prepare a diagram of the water works and the dedicated lands – this diagram is called a "plat." A sample plat is following:

⁴⁶ See M. Walker and D. Couch, "Oklahoma Environmental Law Handbook," Chapter V, Section B, p. V-B-32 (Oklahoma Bar Association Environmental Law Section, 2009).

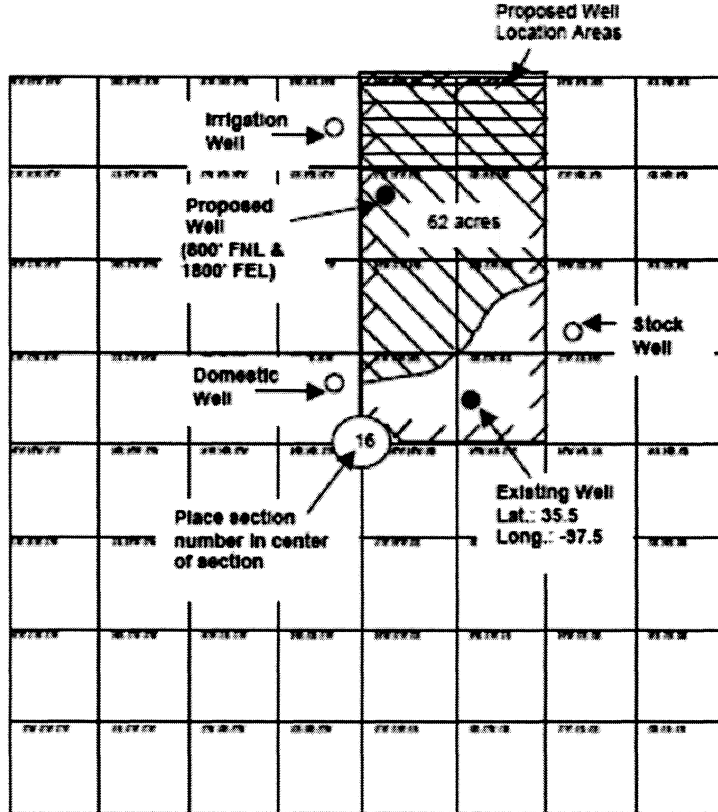
⁴⁷ Limited Quantity permits are discussed at OKLA. ADMIN. CODE § 785:30-5-4.1.

⁴⁸ 82 OKLA. STAT. § 1020.9, OKLA. ADMIN. CODE § 785:30-3-5.

Application # _____

Oklahoma Water Resources Board Application Plat Instructions (Sample)

Applicant Name John Doe



Instructions for Use of Symbols on the Application Plat

Spot the actual location of each existing well and proposed well with known locations to be authorized and provide distances in feet from section lines or boundaries, or provide lat./long. Coordinates.

Show the location of other existing water wells (stock, domestic, irrigation, etc.) within 1/4 mile of dedicated land.

Note: Use additional plats if necessary.


FNL = From the North Line
 FEL = From the East Line
 Lat = Latitude
 Long. = Longitude


Section 16 - Township 10N - Range 10W1M
 Section - Township - Range

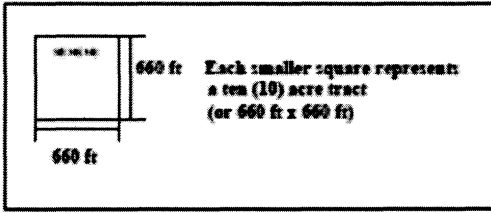
Caddo
 County



 Land Dedicated

 Area of Use
 (example: area to be irrigated, locations of poultry houses, swine houses, or fish farms, mining areas, etc.)

 Potential Well Location Area on Dedicated Lands



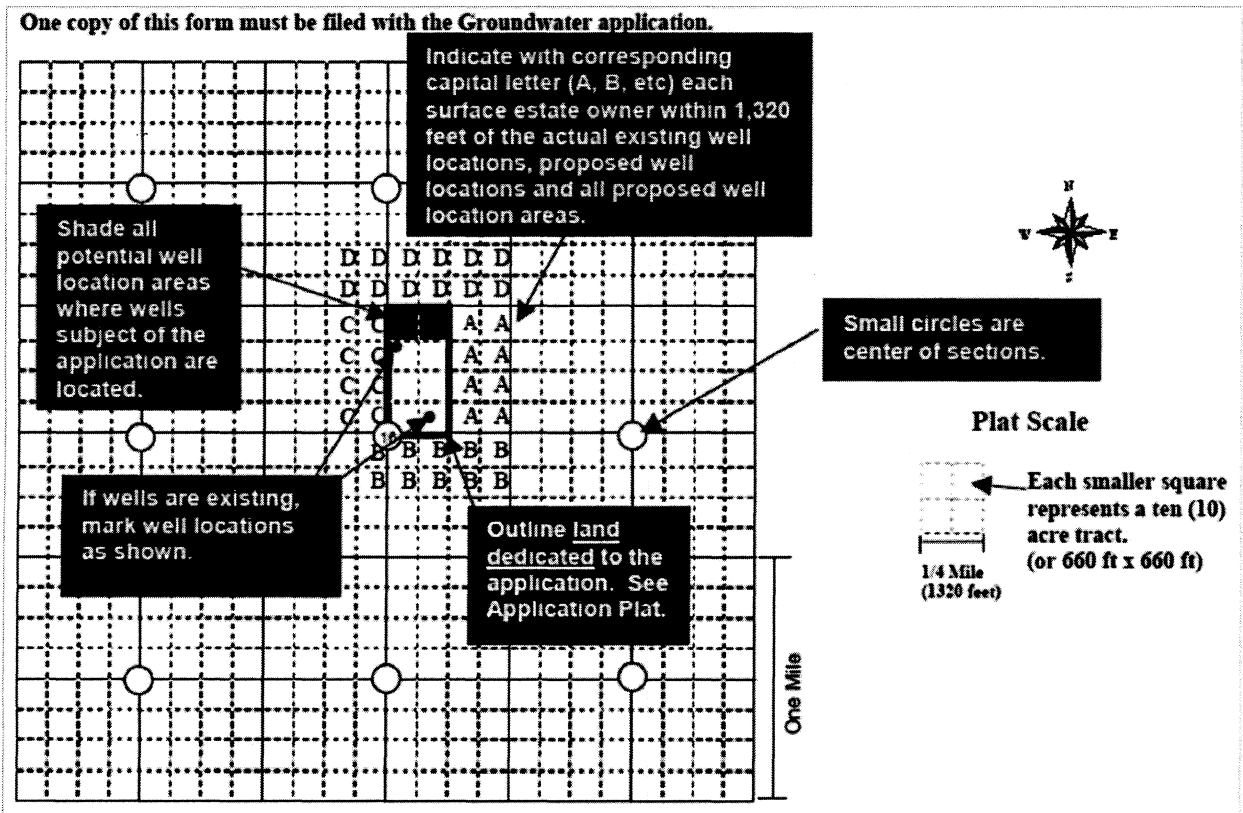
(if exact proposed well location within the area is not known)

The plat will show a section of property (640 acres of property, divided into 10 acre blocks). If more than one section of land must be shown – for example, if land in another section is part of the land dedicated to the application – another plat can be added. If you need some help with the legal description of the locations involved, consult OSU Fact Sheet AGE-9407, “Legal Descriptions.”

The plat will indicate several things about the area where you will be taking and using the groundwater. As shown on the example above, indicate the land that is “dedicated” to your application with short diagonal hash marks going from lower-right to upper-left. The area where the water will be used is indicated with full diagonal marks going from upper-right to lower-left. Areas of land where the proposed groundwater well will be located are indicated with horizontal lines. The location of the proposed groundwater

well, as well as any existing groundwater wells inside the dedicated property or the property where the water will be used are indicated with a solid circle, and other existing wells within a quarter-mile of the dedicated or water use property.

While preparing the design of your water works and plat, you will also need to make note of who owns the property near the location of your well(s). As part of the application process, send notice of your application to any surface owners within 1,320 feet of any of the proposed groundwater wells. Your local abstract company will likely have a map of landowners in the county to help identify the parties that need to receive notice of application. When submitting your application, prepare a plat of the land you are dedicating to the application and the landowners within the 1,320 feet discussed above. A sample plat is below:



The plat prepared for the application will also include a listing of the property owners indicated on your plat. Note the "A," "B," "C" and "D" areas on the plat. Those letters are used to show the different landowners, with the corresponding information about the landowners listed below the plat. For example:

Name	Address
A. <u>Jesse Thomas</u>	<u>16200 N. Pennsylvania, Oklahoma City, OK</u>
B. <u>Jim and April Ferguson</u>	<u>13429 W. Memorial, Oklahoma City, OK</u>
C. <u>Steve and Mary Burgess</u>	<u>P.O. Box 156, El Reno, OK</u>
D. <u>Sue Ellen Mayes Estate</u>	<u>P.O. Box 149, El Reno, OK</u>

Oklahoma law includes several restrictions about "setback" distances for groundwater wells. Generally, a groundwater well must not be closer than 1,320 feet to another groundwater well, although exceptions to this spacing

can sometimes be approved by the OWRB.⁴⁹ Groundwater wells must be set back from the following potential sources of pollution that could contaminate the well or the aquifer from which it draws:⁵⁰

⁴⁹ OKLA. ADMIN. CODE § 785:30-3-6.

⁵⁰ OKLA. ADMIN. CODE § 785:35-7-1(b).

<i>Potential Pollutant Source</i>	<i>Setback Distance Specific Sources</i>
Closed or tight sanitary sewer line	10 ft
Spray from aerobic (above ground) septic system sprinkler	15 ft
Aerobic septic system sprinkler head	50 ft
Outside perimeter of an existing (or proposed) waste lagoon for a feedlot or confined animal feeding operation	300 ft
<i>All Other Sources</i>	
If well is located uphill from the pollution source	50 ft
If well is level with pollution source (NOTE: If well is level or downhill relative to the pollution source and between 50-75 feet from the source, a 20-foot surface seal must be installed around the well)	75 ft
If well is located downhill from the pollution source	100 ft

One more consideration in locating your wells is noting whether there are any abandoned wells in the area. This includes wells of any kind – old water wells, windmills, cisterns, etc. Before you can successfully complete your application, make sure any such wells have been properly plugged and sealed. The standards for plugging old water wells can be found in the Oklahoma Administrative Code at title 785, chapter 35, subchapter 11, which is available from www.oscn.net under the “Legal Research” tab or from the OWRB website at http://www.owrb.ok.gov/util/rules/pdf_rul/2009adopted/Ch35-2009.pdf.

Step 4: Secure access to the lands where wells will be located or lands “dedicated” to the application.

If you own the land where the well or wells will be located, and you own enough land to provide the required volume of water requested, nothing further is needed for this step, and you can proceed to Step 5. If you will need land you do not own for the well or the dedicated lands, however, then you will need to get the permission of the owner to access the property and its groundwater. Permission to use groundwater from someone else’s property can take the form of a lease or other agreement that specifies the names of the parties, includes a legal description of the property involved, and includes wording giving the party applying for the groundwater use permit as the party who has permission to use the water. A simple-to-use form for a groundwater lease is available from the OWRB website at http://www.owrb.ok.gov/supply/watuse/pdf_wat/gw_lease.pdf. You will need to include a copy of your agreement with your application.

Step 5: Prepare an “Application for a Permit to Use Groundwater.”

Now you are ready to start working on the application. The application form is available at http://www.owrb.ok.gov/supply/watuse/pdf_wat/app_gw.pdf or by contacting OWRB at (405) 530-8800. The application must be filled out completely and accurately, and must be typewritten or in ink.

Along with the application, you will also be required to provide an application fee to the OWRB based on the amount of water you want to appropriate.

<i>Amount of Water Requested</i>	<i>Fee</i>
0 to 320 acre-feet	\$190.00
321 to 640 acre-feet	\$300.00
641 to 1500 acre-feet	\$375.00
More than 1500 acre-feet	\$375.00 + \$150.00 for each 500 acre-feet (or any increment thereof) more than 1500 acre-feet. (maximum fee is \$3,000.00)

Part 1 of the application will ask for your name, address, phone number, and fax number. There is also a section to list a contact other than the applicant – this is for applications where an engineer or consultant has been very involved in application process and may want to handle questions on behalf of the applicant.

Part 2 will ask for the total amount of water requested. Remember, this amount needs to be specified in acre-feet, with one acre-foot of water equaling 325,851 gallons.

In Part 3, subpart (a) of the application, specify how the water will be used. In subpart (a) you will show how much water will be used for each purpose proposed (if using the water for more than one purpose, list how much water will be used for each purpose separately). For subpart (a), if using some of the water for irrigation, you may just list “IRRIGATION” – the specific crops you will be irrigating are addressed in subpart (b). Describe how the water will be used and include a brief description of the system you have designed to extract and deliver the water from Step 3. Part 3, subpart (b) must be completed if using any of the water for irrigation. If so, list how many acres will be irrigated and what crops will be irrigated. You must also agree to follow the crop production guidelines recommended for your crop operations by the Natural Resources Conservation Service (NRCS) or other applicable agencies.

Part 4, subpart (a) requires a description of the land that is “dedicated” to the application. In this subpart, indicate how many of the dedicated acres are owned, and how many are leased (or authorized under some other kind of

agreement). Subpart (b) will requires the legal description of all the property that is dedicated to the application. You have already put together the legal descriptions of the property in Step 3, so now put the legal descriptions into the form. Note that the form is designed to accommodate ten (10) acre tracts of land – a “¼

of a ¼ of a ¼” of a section is 10 acres. Let’s say you have dedicated 10 acres of land that is in the southwest quarter of the southeast quarter of the northeast quarter of Section 15, Township 19 North, Range 2 East of the Indian Meridian in Payne County. The form would look like this:

10	acres in	SW	¼ of	SE	¼ of	NE	¼ of	Sec	15	Twp	19	N	2	S	2	ECM	<input type="checkbox"/>	WIM	<input type="checkbox"/>	EIM	<input checked="" type="checkbox"/>	in	Payne	County.
_____	acres in	_____	¼ of	_____	¼ of	_____	¼ of	Sec	_____	Twp	_____	N	_____	S	_____	ECM	<input type="checkbox"/>	WIM	<input type="checkbox"/>	EIM	<input type="checkbox"/>	in	_____	County.
_____	acres in	_____	¼ of	_____	¼ of	_____	¼ of	Sec	_____	Twp	_____	N	_____	S	_____	ECM	<input type="checkbox"/>	WIM	<input type="checkbox"/>	EIM	<input type="checkbox"/>	in	_____	County.

(Note – if your land is located in the Panhandle of Oklahoma, your legal description will use the Cimarron Meridian, or “ECM.” If your land is located elsewhere in the state, your description will use the Indian Meridian, or “WIM” for descriptions west of the Meridian and “EIM” for descriptions east of the Meridian). What if you

were using more than 10 acres? For example, let’s say we are dedicating 40 acres (or “¼ of a ¼” of a section of property) located in the southeast quarter of the northeast quarter of Section 15, Township 19 North, Range 2 East of the Indian Meridian in Payne County. Then the form would look like this:

40	acres in	SE	¼ of	NE	¼ of	--	¼ of	Sec	15	Twp	19	N	2	S	2	ECM	<input type="checkbox"/>	WIM	<input type="checkbox"/>	EIM	<input checked="" type="checkbox"/>	in	Payne	County.
_____	acres in	_____	¼ of	_____	¼ of	_____	¼ of	Sec	_____	Twp	_____	N	_____	S	_____	ECM	<input type="checkbox"/>	WIM	<input type="checkbox"/>	EIM	<input type="checkbox"/>	in	_____	County.
_____	acres in	_____	¼ of	_____	¼ of	_____	¼ of	Sec	_____	Twp	_____	N	_____	S	_____	ECM	<input type="checkbox"/>	WIM	<input type="checkbox"/>	EIM	<input type="checkbox"/>	in	_____	County.

Part 4, subpart (c) simply asks for the county where the water will be used, since the location of the water’s use may be different from the location where it is drawn from the well. As you complete Part 4 of the application, remember to go back over all the descriptions used and make sure they agree with the plat you will prepare in Part 6 of the application.

Part 5 of the application will require you to give several details about the groundwater wells to be used providing the water. Subpart (a) of Part 5 is much like Part 4 because you will need to give the location of the wells. Note that now, we are using legal descriptions as a kind of “address” for the wells so their locations can be

noted on the OWRB’s records – we are not using the legal descriptions to describe an area of land. As a result, we will always use all of the 10 acre units provided in the form. As an example, let’s say we are converting one well we already use for “domestic” water purposes that is located in the southwest quarter of the southeast quarter of the northeast quarter of Section 15, Township 19 North, Range 2 East of the Indian Meridian in Payne County, and we will be drilling a new well located in the northwest quarter of the southeast quarter of the northeast quarter of Section 15, Township 19 North, Range 2 East of the Indian Meridian in Payne County. Our form would then look like this:

Water is to be withdrawn from 2 well(s) located in : Legal description must agree with plat.

Existing <input checked="" type="checkbox"/>	Proposed <input type="checkbox"/>	SW	1/4 of SE	1/4 of NE	1/4 of Sec	15	Twp	19	N <input checked="" type="checkbox"/>	S <input type="checkbox"/>	Rge	2	ECM <input type="checkbox"/>	WIM <input type="checkbox"/>	EIM <input checked="" type="checkbox"/>	in	Payne	County
Existing <input type="checkbox"/>	Proposed <input checked="" type="checkbox"/>		1/4 of SE	1/4 of NE	1/4 of Sec	15	Twp	19	N <input checked="" type="checkbox"/>	S <input type="checkbox"/>	Rge	2	ECM <input type="checkbox"/>	WIM <input type="checkbox"/>	EIM <input checked="" type="checkbox"/>	in	Payne	County
Existing <input type="checkbox"/>	Proposed <input type="checkbox"/>		1/4 of	1/4 of	1/4 of Sec		Twp		N <input type="checkbox"/>	S <input type="checkbox"/>	Rge		ECM <input type="checkbox"/>	WIM <input type="checkbox"/>	EIM <input type="checkbox"/>	in		County

Subpart (b) of Part 5 asks for information regarding the drilling and construction of the wells. The first few questions will relate to wells already drilled. This section anticipates wells that were once used for domestic purposes may be converted to non-domestic purposes, or non-domestic wells may be used for new purposes. You must have an approved groundwater use permit BEFORE you drill any wells (although test holes CAN be drilled prior to the issuance of the permit). You will be asked to provide the well logs from any existing wells you will be using. These logs should be available from the driller who installed the well. Logs for some wells may also be available from the OWRB's Water Information Mapping System at <http://www.owrb.ok.gov/maps/server/wims.php> to locate wells and in some cases, obtain the logs for those wells.

For existing wells, you need to answer questions about who constructed the well, whether it meets the appropriate construction requirements, the depth of the well, and the rates of water it is expected to produce (given in gallons per minute). Well construction requirements are found in Title 785, chapter 35, subchapter 7 of the Oklahoma Administrative Code.⁵¹ You can find a copy of these standards by going to the Oklahoma Administrative Code section of the Oklahoma State Court Network's website, www.oscn.net, under the "Legal Research" tab. You can also get a copy of the standards from the OWRB's website at http://www.owrb.ok.gov/util/rules/pdf_rul/2009adopted/Ch35-2009.pdf. You will also need to answer several questions about the "setback" distances required for groundwa-

ter wells. Wells need to comply with the setback distances discussed above.

Another question asked in subpart (b) of Part 5 will be about the well driller. Unless drilling and installing the well yourself, you will need to use a well driller licensed by the OWRB.⁵² A list of licensed drillers can be found on the OWRB website at http://www.owrb.ok.gov/supply/wd/wd_forms.php#dpcfirms. In this subpart, it will also be important to make sure the location information you give in Parts 4 and 5 of the application matches with the plat prepared for Part 6.

Lastly, note whether there are any abandoned or unused wells located anywhere on the property dedicated for the application. They need to be certified that they are plugged or will be plugged prior to the use of water begins.

Part 6 of the application consists of the plat showing where you plan to locate the wells, the lands dedicated to your application, and so on. This work has already been completed in the steps discussed above. Now simply transfer that information to the plat.

The same could be said of Part 7 of the application, which is the Surface Estate Owners Map. This is just a plat of the surface owners.

Part 8 of the application is only for municipalities or rural water districts applying for a groundwater use permit.

Part 9 requires you to detail how you will detect and repair any leaks in your system, and how long those operations might take.

Now, the final part of the application is where you will sign. But first, you must figure out who is responsible for signing:

⁵¹ OKLA. ADMIN. CODE § 785:35-7-1 provides the "minimum standards for construction of groundwater wells, fresh water observation wells, and water well test holes."

⁵² OKLA. STAT. § 1020.16, OKLA. ADMIN CODE § 785:35-3-1.

<i>If the entity applying for the appropriation is...</i>	<i>...then the party(ies) who need to sign is(are):</i>
An individual person	The individual
A husband and wife	Either spouse (or both may sign)
A general partnership	All the partners
A limited partnership, corporation, LLC, trust, estate, government agency, or other any type of entity	The entity's "authorized agent" – usually the company's manager or president, the trustee of a trust, executor of the estate, etc.

Once the application is complete, be sure to review it and make sure all the information is complete and accurate, any additional information needed is attached, and you have included the appropriate application fee. Submitting a complete and correct application the first time will make it much easier to get a speedy approval. If the OWRB sees that corrections must be made to your application, they will notify you of the corrections and give you 60 days to make those corrections. If the corrections are not made within those 60 days, the OWRB may consider the application withdrawn.⁵³

Publishing Notice / Submitting Proof of Publication.

After filing the application, you must then publish a notice of the application.⁵⁴ If the OWRB deems your application complete, they will send you instructions on how to publish this notice.

⁵³ OKLA. ADMIN CODE § 785:30-1-4.
⁵⁴ OKLA. ADMIN CODE § 785:30-3-4.

RE: Groundwater Application No. 2009-503, Leo & Arleta Whitmore, Payne County

Dear Mr. Whitmore:

The above-referenced application to use groundwater has been reviewed by Board staff. In order to obtain a permit, you must provide notice of the essential facts about your intended use by newspaper publication and by notifying certain neighbors.


In accordance with Section 309 of Title 75 and Section 1020.8 of Title 82 of the Oklahoma Statutes, and Section 785:30-3-4 of the Oklahoma Administrative Code (OAC), we have enclosed a Notice of Application to be published at your expense in a newspaper of general circulation in Payne County. The notice must be published once a week for the two consecutive weeks beginning on July 26, 2009, and August 2, 2009. Please send us, or have the publisher forward to us, the certified proofs of publication by August 17, 2009. Because the Board is not responsible for the accuracy of the information contained in the notice, please review the enclosed notice carefully and contact the Board if you note any errors or have any questions regarding notice.

In addition to giving notice by publication of your application to withdraw groundwater, OAC Section 785:30-3-4(a) requires that you notify by certified mail, return receipt requested, all surface estate owners of lands located within 1,320 feet of the outside boundary of each ten acre tract of wells subject of your application. Please notify these landowners on or before the last day of publication. We have enclosed extra copies of the notice for this purpose. You may xerox additional copies if you need more than we have provided. Also enclosed is an affidavit certifying you have notified all of these surface estate owners. The affidavit must be signed, notarized, and returned to the Board by or before August 17, 2009.

Any protests to your application must be filed with the Board by August 24, 2009. If a protest is filed, a hearing will be scheduled and you will be notified.

If you have any questions concerning this matter, please contact Mary Nell Brueggen at the address below or call (405) 530-8800.

Sincerely,


Julie Cunningham, Chief
Planning & Management Division

The notice must be posted for two consecutive weeks in a newspaper distributed in the area affected by the use of the water (some people refer to this as a county "newspaper of record" or a "legal newspaper"). After the notice has been printed, you must submit proof the notice was printed to the OWRB. Many newspapers will provide you with a form for this proof. For help on preparing your notice and finding the newspaper serving your county, visit the Oklahoma Press Association website at <http://www.okpress.com/legal-notice-guide> and click on the "Legal Notice Guide" link. Click on the "List of Members" link and then go to the "Business Members" for a list of newspapers that meet the definition of a "legal newspaper." When completed, the proof of publication form will look something like this:

NewsPress
PROOF OF PUBLICATION
 STATE OF OKLAHOMA)
) SS.
 COUNTY OF PAYNE)

ANGELA C TINKER
 of lawful age, being duly sworn and authorized, says that she is the authorized agent of the Stillwater NewsPress, a daily newspaper printed in the City of Stillwater, Payne County, Oklahoma, a newspaper qualified to publish legal notices, advertisements, and publications as provided in Section 106 of Title 25, Oklahoma Statutes 1971, as amended, and complies with all other requirements of the laws of Oklahoma with reference to legal publications.

That said notice, a true copy of which is attached hereto, was published in the regular edition of said newspaper during the period and time of publication and not in a supplement, on the following dates:

July 27, August 3, 2009

Angela C Tinker

Subscribed and sworn to before me this 3rd day of August, 2009.

Michelle A. DePue
 Notary Public

My Commission Expires: June 30, 2012
 No. 08006780

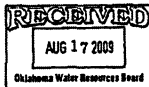
Publication Fee: \$118.89
 App 2009-503



Published in the Stillwater NewsPress July 27, August 3, 2009-20

NOTICE OF APPLICATION TO USE GROUNDWATER
 Lee and Adela Whitmore c/o Wayne Whitmore of 10330 West 14th, Coyle, OK 73007 have filed an application, #2009-503, with the Oklahoma Water Resources Board (Board) for permit to use 180 acre-foot of groundwater per year. The groundwater to be used for irrigation (4.1) and mining production of oil gas wells (118 a.1). The water will be taken from 80 acres located in the NE 2 SW of Section 15, T17N, R18E, Payne County. The water is to be withdrawn from one well in the NW SW SW of the same Section 16. The applicants propose to use the groundwater in Payne County, Oklahoma. Use of groundwater is governed by Sections 1030.1 and following of Title 82 of the Oklahoma Statutes and rules of the Board. Oklahoma Administrative Code (OAC), Title 795, Chapter 30.
 Protests to the application must be in writing and received by the Board at the address listed below and by the applicant at the address listed below no later than August 24, 2009, and contain the following: (1) name, address, and telephone number of the interested person; (2) the particular application number to which the protest relates; (3) specific information to show how approval of the application proposed may directly and adversely affect their protected interests of the person filing the protest; and (4) a statement of the relief sought by the interested person. A person who sends a letter explaining only a general objection or comment will not be deemed to be

a party, but the letter will be made part of the permanent record.
 If a person that meets the requirements listed in the paragraph above is filed with both the applicant and Board, a hearing on this application will be scheduled and the applicant and protestant(s) will be advised of the hearing date. Protestants or their representatives must appear at the hearing and present the protest to be considered. Hearings are governed by Title 82 of the Oklahoma Statutes, and the rules of Board, OAC Title 795, chapters 4 and 30. If you have any questions, please contact Mary Nell Snuggen at (405) 830-8900.
 Board mailing address: Oklahoma Water Resources Board, Planning & Management Division, 2800 N. Classen Blvd., Oklahoma City, OK 73110-2881. Board fax number (405) 830-8900.



You will need to provide notice via certified mail to any landowner within 1,320 feet of the ten (10) acre tract in which your proposed well(s) are located. These are the landowners you identified on the plat discussed above.

Hearings on the Application: After notice is published, the public will then have an opportunity to protest the application. A protest may not be made by just anyone. Instead, to protest an application, someone must have an "interest" in the application.⁵⁵ This means that the party filing the protest must have some claim to water in the area affected if your application is granted. If the OWRB finds that the protest is valid, it may schedule a hearing where you may present evidence in support of your appropriation request, and the protesting party may present evidence supporting its request for a denial of the appropriation.⁵⁶ The OWRB will consider the information gathered at the hearing in making its decision on whether to grant the requested appropriation.

Application Decision: After the application has been submitted, any necessary corrections have been made, and any hearings have been completed, the OWRB will make a decision on whether to grant the application. To grant the application, the OWRB must have enough information to confirm that the following four conditions are true for the application:

⁵² 82 OKLA. STAT. § 1020.8.
⁵⁵ 82 OKLA. STAT. § 1020.8, OKLA. ADMIN CODE § 785:35-3-4.

<i>Required Finding</i>	<i>What it means...</i>
The lands owned or leased by the applicant overlie a fresh groundwater basin or subbasin.	As a practical matter, most land in the state overlies a fresh groundwater basin or subbasin, but to confirm this, you can use the water mapping resources discussed above.
The use to which the applicant intends to put the water is a beneficial use.	“Beneficial use” is a very broad term that is defined as “the use of such quantity of stream or groundwater when reasonable intelligence and reasonable diligence are exercised in its application for a lawful purpose and as is economically necessary for that purpose. Beneficial uses include but are not limited to municipal, industrial, agricultural, irrigation, recreation, fish and wildlife, etc.” In other words, the water will be used for some purpose that will not waste or pollute the water, as we will discuss in the next criterion.
“Waste” of the water will not occur.	<p>Waste has a number of definitions. Oklahoma groundwater law and regulations define any of the following items as waste:</p> <ol style="list-style-type: none"> 1. Drilling a well, taking, or using fresh groundwater without a permit, except for domestic use; 2. Taking more fresh groundwater than is authorized by the permit; 3. Taking or using fresh groundwater in any manner so that the water is lost for beneficial use [in other words, allowing unreasonable amounts of the water to leak, evaporate, or otherwise be lost before it is used]; 4. Transporting fresh groundwater from a well to the place of use in such a manner that there is an excessive loss in transit; 5. Using fresh groundwater in such an inefficient manner that excessive losses occur; 6. Allowing any fresh groundwater to reach a pervious stratum and be lost into cavernous or otherwise pervious materials encountered in a well [in other words, failing to construct the groundwater well properly and thus, causing the water to be lost into another geological formation before it can be pulled up the well]. 7. Permitting or causing the pollution of a fresh water strata or basin through any act which will permit fresh groundwater polluted by minerals or other waste to filter or otherwise intrude into such a basin or subbasin [again, this often occurs when a poorly constructed well allows pollutants from the surface or an other geological formation to mingle with the groundwater being tapped by the well]; 8. Drilling wells and producing fresh groundwater therefrom except in accordance with the well spacing previously determined by the Board [in other words, not following the OWRB’s requirements for well spacing is considered “waste.”]; 9. Using fresh groundwater for air conditioning or cooling purposes without providing facilities to aerate and reuse such water; 10. Failure to properly plug abandoned fresh water wells in accordance with rules of the Board and file reports thereof.
The proposed use is likely to degrade or interfere with springs or streams emanating in whole or in part from water originating from a “sensitive sole source groundwater basin or subbasin.”	“Sensitive sole source groundwater basins” are determined by the U.S. Environmental Protection Agency – at the moment, the only such aquifer in Oklahoma is the Arbuckle-Simpson aquifer located in south-central Oklahoma in Pontotoc, Johnston, Carter, and Murray counties.

If all of these conditions are satisfied, and any applicable requirements regarding the water's use (such as regulations on feedlots or other facilities under the jurisdiction of the Oklahoma Department of Agriculture, Food and Forestry or the Oklahoma Department of Environmental Quality) are satisfied, then OWRB will approve the application.⁵⁷

Annual use reporting requirements:

Once the groundwater use permit is approved, you will need to make an annual report of the amount of water used.⁵⁸ The OWRB will send water-reporting forms each January, allowing 30 days to complete the report and submit it back to the OWRB. It is important that you complete these reports, as failing to do so can cause loss of your permit.⁵⁹

An Example of a Completed Application

Pistol Pete has some property in Texas County, and wants to start growing a corn, soybean, and sorghum rotation there. To get the level of production he wants from the property, he believes he will need to use an irrigation system. Pete's property is a quarter section of property, which means it is 160 acres in size, and he thinks a center-pivot system will work best for the land. Given a typical quarter section center-pivot irrigation system, this means 125 acres of land will be irrigated; the rest will be "corners" not be irrigated, as the irrigation system will not pass over them.

Reading the Oklahoma Water Law Handbook, Pete knows that irrigating 125 acres of cropland is not "domestic" use of the water. This means Pete must apply for a groundwater use permit. Let's follow along as Pete goes through his application process.

Step 1: Calculate how much water you need.

Pete's first task is to determine how much water he will ask for in his application. To do this, he has to calculate the water needs of his crop. Pete does some research and learns that of his corn, soybean and sorghum rotation,

corn will be the most water-intensive crop. As a result, Pete will base his application off of the amount of water needed by the corn crop. Looking at the NRCS Irrigation Guide and its Oklahoma Crop Water Use Supplement (available at <http://www.wsi.nrcs.usda.gov/products/w2q/downloads/Irrigation/National%20Irrigation%20Guide.pdf> and <http://www.ok.nrcs.usda.gov/technical/Manuals/ig.html>, respectively), Pete sees that given the annual rainfall and evaporation of the area in a normal year, he will need 18 inches of net irrigation on his crop. Doing some more research on his irrigation system, he sees that it has an expected efficiency of 80 percent - that is, approximately 20 percent of the irrigation water applied will likely be lost to evaporation, with the remaining 80 percent making it into the soil and becoming available to the crop plants. Using this information, Pete does some math:

- 18 net inches of water needed ÷ 80 percent efficiency = 22.5 inches of irrigation needed. Doing some more research, Pete sees that in a dry year, he will need 25 inches of irrigation, so he will base the remainder of his calculations on this number.
- 25 inches of actual irrigation water x 125 irrigated acres = 3,125 acre-inches of water.
- 3,125 acre-inches of water ÷ 12 acre-inches per acre-foot = 260.4 acre-feet of water.
- Since Pete will need almost 261 acre-feet of water per year, he needs to check that he has enough land to dedicate to the permit. He is dedicating the entire 160 acre tract to the permit, and at the standard two acre-feet of water per acre of dedicated land, he would be fine. However, Pete needs to check and see if the maximum annual yield has been determined for his aquifer; this will help him confirm whether he can follow the standard two acre-feet rule or if more land will be required. Pete consults the "Maximum Annual Yield" fact sheet from OWRB (available at http://www.owrb.ok.gov/studies/groundwater/arbuckle_simpson/pdf/DetermineMAY.pdf) and checks the following table:

⁵⁷ 82 OKLA. STAT. § 1020.9.

⁵⁸ 82 OKLA. STAT. § 1020.12, OKLA. ADMIN CODE § 785:30-5-9..

⁵⁹ OKLA. ADMIN CODE § 785:30-5-9.

GROUNDWATER BASIN	FINAL ORDER	EPS*	MAY**
Tillman Terrace	12/12/1978	1	189,760
North Fork of the Red River Alluvial and Terrace	09/08/1981	1	343,042
Enid Isolated Terrace	11/09/1982	0.5	26,000
Elk City Sandstone	11/09/1982	1	157,440
North Canadian River Alluvium and Terrace--Phase 1	08/08/1983	1	426,000
Gerty Sand Isolated Terrace	09/12/1989	0.65	28,112
North Canadian River Alluvium and Terrace--Phase 2	04/10/1990	1	211,840
Washita River Alluvium and Terrace--Reach 1	11/13/1990	2	120,320
Washita River Alluvium and Terrace--Reach 3	11/13/1990	1.5	81,840
Washita River Alluvium and Terrace--Reach 4	11/13/1990	1	46,935
Vamoosa-Ada	05/06/1991	2	2,968,000
North Canadian River Alluvium and Terrace-- Phase3A	02/14/1995	0.8	48,128
North Canadian River Alluvium and Terrace--Phase 3B	02/14/1995	1.3	138,944
Antlers Sandstone	02/14/1995	2.1	5,913,600
Ogallala - Panhandle	03/12/2002	2	2,285,212
Ogallala - Northwest Region	03/12/2002	1.4	1,198,512

**EPS=Equal Proportionate Share (denoted in acre-feet); **MAY=Maximum Annual Yield (denoted in acre-feet)*

This table indicates there has been a groundwater survey completed for this aquifer, and based on this study, a limit of two acre-feet of water per each acre of dedicated land is allowed. As a result, Pete can dedicate enough land to get the two acre-feet of water he needs. By comparison, if Pete's land were located in the Ogallala – Northwest Region (in Harper, Ellis, and Woodward Counties), he would only be allowed 1.4 acre-feet of water per acre of dedicated land.

Step 2: Understand your groundwater resource.

As Pete designs his groundwater system, he needs to know a little more about the groundwater resource nearby. One way to learn more about the groundwater in an area is to review the records for groundwater wells nearby. When Pete uses the OWRB Water Map server (available at <http://www.owrb.ok.gov/maps/server/wims.php>), he is able to find records for a few nearby wells. Here is some of the well data from one of those records:

HYDROLOGIC INFORMATION			
Depth to water at time of drilling	___ ft	Estimated yield of well	_1000_ gpm
		First water zone	_150_ ft
LITHOLOGY DESCRIPTION			
MATERIAL	ENCOUNTERED		SATURATED
	FROM (ft.)	TO (ft.)	
overburden	0	140	N
medium to coarse sand	140	185	N
cemented sand & clay stks	185	200	N
medium to coarse sand	200	230	N
cemented sand & clay stks	230	260	N
medium to coarse sand	260	305	N
red bed tight	305	316	N

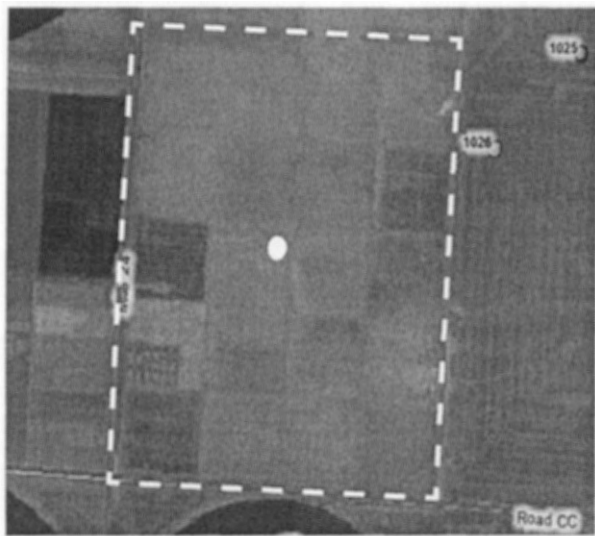
This information, taken from a well close to Pete's property, indicates that water is first encountered approximately 150 feet from the surface, and that the well's overall depth is 316 feet. It also indicates that the well yields approximately 1,000 gallons per minute of water flow. This gives Pete at least some idea of the depth and flow that will be likely if he constructs a similar well.

The OWRB Water Map server is just one tool that can be used for learning about groundwater resources in an area. Other resources for learning about water availability are available from the OWRB website at <http://www.owrb.ok.gov/supply/availability/water.php>.

Step 3: Design Your Waterworks.

Pete has already determined the volume of water he needs, and has also picked out an irrigation system - a center-pivot system with drop tubes and low-drift nozzles to maximize the amount of water that actually makes it to the ground. However, he still needs to determine what kind of well and pump he needs, and where he will locate the well. The typical irrigation well in the Oklahoma panhandle will be a 16-inch diameter steel casing in a 24-inch diameter borehole with a 4-inch thick gravel envelope surrounding the casing. The irrigation pump will be a vertical turbine pump driven from the ground surface by a natural gas engine.

Using the OWRB Water Map server, Pete gets a copy of an aerial photograph of his parcel to help him plan the layout of his waterworks. In his picture, he outlines his parcel with dashed lines, and uses a dot to indicate the proposed location of his well.



Step 4: Secure Access to the Property.

In our example, Pete owns both the land where the well will be located and the land where the water will be used, thus, there are no access issues. If, on the other hand, Pete had to secure groundwater from someone else's land, he would have to prove that he had some claim to the property. For the purposes of the application, this is done with the Groundwater Lease form, available at: http://www.owrb.ok.gov/supply/watuse/pdf_wat/gw_lease.pdf. An example of this form is below.

GROUNDWATER LEASE (LANDOWNER PERMISSION)	
I, _____, am the surface owner of _____ acres <small>(name of surface land owner)</small>	
of land located in the _____ <small>(legal description) (county)</small>	
County, and I hereby authorize _____ or a <small>(name of applicant for groundwater permit)</small>	
duly authorized representative to apply for a permit, locate wells on the land and withdraw groundwater from the land described above. This lease is for: (complete applicable option)	
1. a period not to exceed _____ from the date listed below, or <small>(days, months, or years)</small>	
2. _____ an indefinite term <small>(if applies)</small>	
_____ Signature	_____ Street address or P.O. Box
_____ Surface Owner Name (print)	_____ City, State, Zip
_____ Date	_____ Telephone number
State of Oklahoma) County of _____) ss.	
Subscribed and sworn to before me this _____ day of _____, 20____	
_____ Notary Public	
My Commission Expires: _____ <small>(Seal)</small>	

Step 5: Complete the "Application for a Permit to Use Groundwater" form.

Now that Pete is ready to prepare his application.

Section 1 of the application will ask for the contact information of the applicant. If another party was heavily involved in the preparation of the application, such as an engineer, and that person should be contacted with questions about the application, the contact information for that person should be included as well. Since Pete is preparing this application himself, he will only need to provide his information.

1. NAME AND ADDRESS

a. *Print the applicant's full name and mailing address, complete with zip code. If the applicant is a corporation, use the name and business address of the corporation.*

Applicant Name Pistol Pete Phone (405) 555 - 0000
Address 101 Cowboy Way FAX# (405) 555-0001
City Stillwater State OK Zip 74078

b. *If the contact during the application process is someone other than the applicant listed above, print the name and mailing address of the contact person.*

Contact Name N/A Phone () - -
Address _____ FAX# () - -
City _____ State _____ Zip _____

Section 2 of the application asks for the amount of water requested in the application. Using his calculations from above, Pete will be asking for 261 acre-feet of water.

2. AMOUNT OF WATER REQUESTED

State total amount of water applied for in acre-feet per calendar year. One acre-foot of water will cover one acre of land one foot deep and is equal to 325,851 U. S. gallons.

Application is made to take and use 261 acre-feet of water annually.

Next, Section 3 will ask for the uses of the water. Recall that Pete is going to be using all of this water for irrigation, and the crops irrigated with the water will be a corn, soybean, and sorghum rotation. Pete will need to provide information about how the water will be used (in this

example, all of the water will be used for irrigation), give details about the water system, and since the water will be used for irrigation, a listing of the crops that will be irrigated must also be given.

3. PURPOSE(S) FOR WHICH WATER WILL BE USED

a. List the purpose or purposes for which the water would be used if the permit is granted and list the number of acre-feet for each purpose. Be sure that the sum of the amounts listed below equals the total acre-feet in #2 above. If the water is to be used to irrigate crops, list IRRIGATION as the purpose and list the sum total acre-feet for all crops.

261 acre-feet of water will be used for Irrigation
 _____ acre-feet of water will be used for _____
 _____ acre-feet of water will be used for _____
 _____ acre-feet of water will be used for _____

OFFICE USE ONLY	
SIC Codes	

Describe fully how the water will be used, and include a description of the system proposed to be used:

The water will be used for irrigation; the system to be used consists of a vertical turbine pump that will convey the water to a center-pivot irrigation system.

b. If the water requested is for irrigation purposes, state the total number of acres that will be irrigated.

125 acres of land are proposed to be irrigated. The proposed crops are Corn, soybeans and sorghum.

Will you follow applicable requirements, guidelines and best management practices recommended by the Natural Resources Conservation Service or other applicable agencies? X Yes ___ No

Section 4 of the application relates to the amount of land dedicated to the application. Here, Pete will indicate he owns the dedicated

land, provide the legal description of the property, and indicate the county where the water will be used.

4. OWNERSHIP AND LEGAL DESCRIPTION OF LAND DEDICATED

a. No permit of any kind shall be granted without the WRITTEN PERMISSION OF THE SURFACE OWNER OF THE LAND from which the water is to be withdrawn. If the applicant does not own the groundwater underlying the dedicated land, a copy of the lease or agreement giving the applicant the right to withdraw the groundwater must be furnished with the application. Said lease or agreement must specify the number and location of the acres under lease. A municipality may dedicate platted land within its corporate limits under certain conditions.

160 acres are owned, _____ acres are leased and / or _____ acres are platted (municipal only), and dedicated to this application. Lands must be shown in attached application plat(s). Attach copy of deed, lease or other written authorization from owner, etc., showing right to use groundwater from the land.

b. The full legal description of all lands dedicated must be given with the number of acres in each legal description stated. The legal descriptions should be checked against the plats to make sure they agree. Please do not use city lot and block numbers, but show the land on the plat and then convert to the nearest legal description. If more space is needed for legal descriptions, list on a separate sheet of paper and attach it to the application, referencing paragraph 4.b.

160 acres in SW 1/4 of _____ 1/4 of _____ 1/4 of Sec 31 Twp 2 N S Rge 14 ECM WIM EIM in Texas County.

_____ acres in _____ 1/4 of _____ 1/4 of _____ 1/4 of Sec _____ Twp _____ N S Rge _____ ECM WIM EIM in _____ County.

_____ acres in _____ 1/4 of _____ 1/4 of _____ 1/4 of Sec _____ Twp _____ N S Rge _____ ECM WIM EIM in _____ County.

c. The water will be used in Texas County, Oklahoma.

b. Has the well(s) to be used already been drilled? ___ Yes ___ X No

(1) If yes, please answer the following questions.

(A) Did a licensed water well driller drill and complete the well(s)? ___ Yes ___ No

[Please attach a copy of the well log(s) if available.]

If no, who drilled your well(s)?

Was your well(s) constructed to meet the Oklahoma Water Resources Board's minimum construction standards for water wells? ___ Yes ___ No

(B) List the depth of the well(s) and anticipated pumping rates for each well:

350 feet; 1,000 gallons per minute

(2) If the well(s) has not been drilled, will a licensed water well driller drill and complete the well(s)?

X Yes ___ No

(A) If no, who will drill your well(s)? _____

(B) Will your well(s) be constructed to meet the Oklahoma Water Resources Board's minimum construction standards for water wells? X Yes ___ No

Subsection 5.b.3. asks the applicant to confirm that all of the setback distances specified for water wells in the OWRB regulations discussed above will be met. Pete has examined

the area around his property, and none of the setbacks appear to apply, so he can mark "N/A" to each.

(3) Will the well(s) be located at least the following minimum distances away from possible pollution sources:

- i. 10 feet from a closed or tight sanitary sewer line; ___ Yes ___ No X N/A
- ii. 300 feet from the outside perimeter of an existing or proposed waste lagoon for a feedlot or confined animal feeding operation; ___ Yes ___ No X N/A
- iii. For all other pollution sources (including but are not limited to existing or proposed septic tanks, sewer lines, absorption fields or beds, seepage pits, building foundations, oil & gas wells and landfills):
 - a) 50 feet if the well is upgradient of the pollution source;
 - b) 50 to 75 feet if the well is level or downgradient of the pollution source and a 20 foot surface seal is installed;
 - c) 75 feet if the well is on the same ground level with the pollution source;
 - d) 100 feet if the well is downgradient of the pollution source___ Yes ___ No X N/A

Subsection 5.c. of the application will ask about any abandoned or unused wells located on the land dedicated to the application. Pete has inspected the property and found no wells

on the property. If he had, they would have to be plugged (if abandoned) or capped (if they are only unused).

c. ABANDONED WELL PLUGGING. To your knowledge, are there any abandoned or unused water wells, hand dug wells or windmills on the lands dedicated to this application? ___ Yes X No

(1) If yes, have all abandoned wells been, or will they be, properly plugged before your use of the water begins? ___ Yes ___ No ___ N/A

(2) Have all wells, which are temporarily out of service, been or will they be capped before your use of the water begins? ___ Yes ___ No ___ N/A

Section 6 of the application is the "Application Plat." On this plat, Pete will present the information about the land he will dedicate to the application and will also show his proposed well site, as well as the location of other wells in the

area (specifically, the location of all wells within ¼ mile of the dedicated land). Based on the information Pete has collected, his plat will look like this:

Application # _____
Oklahoma Water Resources Board
Application Plat
(Instructions provided on back)

Applicant Name Pistol Pete

SW NW SW	SE NW SW	SW NE SW	SE NE SW	NW NW SE	NE NW SE	NW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE
SW SW SW	SE SW SW	SW SE SW	SE SE SW	SW NW SE	NE NW SE	SW NE SE	NE NE SE

31

Existing Well 1025
 Lat: 36.596
 Long: -101.589

Existing Well 1026
 Lat: 36.594
 Long: -101.591

Proposed well location
 Lat: 36.591
 Long: -101.595

31 T2N R14 BCM
 Section - Township - Range

Texas
 County

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Section 7 of the application requires Pete to prepare a "Surface Estate Owners Map" for each well he is requesting. This map will show the surface owners within 1/4 mile of the proposed well-site, and will serve as the basis for the notices Pete will have to mail out regarding his application. To prepare the map, Pete will shade in the square where his proposed well will be located (each square represents a 10 acre tract, or a 1/4 of 1/4 of 1/4 section) and will outline the land dedicated to the application. He

also needs to mark where other existing wells in the area are located. Then, Pete needs to identify who owns the surface of the property within 1/4 mile of his well. He can assign each of these owners one of the letters (A, B, C, etc.) and list the owner and their address below the map. The land owned by each of these parties can then be represented by these letters on the map. As a result, Pete's map would look like this:

Application # _____

Oklahoma Water Resources Board
Surface Estate Owners Map
 (Instructions provided on back)

Applicant Name Pistol Pete

The applicant must furnish names and mailing addresses of all surface estate owners of land located within one thousand three hundred twenty (1320) feet from the actual location of existing or proposed wells, and from the outside boundaries of all potential well location areas subject of this application, unless otherwise directed by the Board. Mark the actual location of existing and proposed wells and shade all potential well location areas subject of the application.

One copy of this form must be filed with the Groundwater application.

Plat Scale
 Each smaller square represents a ten (10) acre tract.
 1/4 Mile (1320 ft)

SURFACE ESTATE OWNERS OF LANDS LOCATED WITHIN 1320 FEET OF WELL LOCATIONS OR AREAS

Name	Address
A. <u>Slim Pickens</u>	<u>111 N. Main, Goodwell, OK 73939</u>
B. <u>Panhandle Farms, LLC</u>	<u>222 W. 2nd St., Goodwell, OK 73939</u>
C. <u>Sandy Loam</u>	<u>333 E. Port, Goodwell, OK 73939</u>
D. <u>Alice Alluvium</u>	<u>444 S. Ogalalla, Goodwell, OK 73939</u>
E. <u>Okla. St. Univ.</u>	<u>101 Whitehurst, Stillwater, OK 74078</u>
F. _____	_____
G. _____	_____
H. _____	_____
I. _____	_____

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Section 8 of the application applies only to municipalities and rural water districts. Since Pete does not fit in either of those categories, he will proceed on to Section 9.

Section 9 asks how Pete will identify any

losses from his system. This question is aimed at showing water will not be wasted if the permit is granted. Here, Pete should detail how he will go about detecting and repairing leaks from his irrigation system.

9. SYSTEM LOSSES AND LEAKS. How will water system losses or leaks be detected and repaired, and how much time will detection and repair take?

Applicant will make weekly inspections of the system and will look for any evidence of leaks or other malfunctions. Any identified leaks should be repaired within a week of discovery.

All that remains now is the signature. Since Pete is applying as an individual, he can sign for himself. Since the form must be notarized, he should sign the form in the presence of the notary and then have the notary document the form. If, on the other hand, another type of entity (such as a trust, LLC, corporation, etc.) was completing the form, someone who was authorized to act on behalf of the entity should sign. In the case of a trust this will most likely be the trustee, and for a corporation or an LLC, the chief officer will likely be the signer.

Once the application is completed, Pete must be sure to attach the appropriate filing fee, the application form along with all the supporting plats and maps, and a copy of the deed granting him title to the property. After the application has been submitted, the OWRB will inform Pete of when and how he should prepare his public notice. Any indicated corrections from the OWRB should be promptly addressed by Pete and returned to the OWRB.

Definitions and Units

Acre-foot: the volume of water that would cover one acre (43,560 square feet) to a depth of one foot. An acre-foot of water is equal to 325,851 gallons.⁶⁰

Aquifer: Permeable layers of underground rock or sand that hold or transmit groundwater below the water table that will yield water to a well in sufficient quantities to produce water for beneficial use.⁶¹

Dedicated: Surface land area that has been set aside to help produce the amount of groundwater requested in a groundwater permit application. The need for a dedicated piece of property arises from the "equal proportionate share" principle, which refers to the proportion of an aquifer's yield capacity relative to the surface land that overlies it.⁶²

Definite stream: a watercourse in a definite, natural channel, with defined beds and cut banks, originating from a definite source or sources of supply. The stream may flow intermittently or at irregular intervals, if that is characteristic of the sources of supply in the area.⁶³

Detention pond: A pond used to temporarily store rainwater runoff. Detention ponds are often used to prevent flooding problems by lowering the rate that runoff leaves an area.⁶⁴

Diffused surface water: Water that occurs in its natural state, in places on the surface of the ground other than in a definite stream or lake or pond. This type of water is often thought of as "runoff."⁶⁵

Diversion point: the location on a stream where water is collected by water works for a use outside of the stream.⁶⁶

Domestic use: Use of stream water or groundwater that does not require an OWRB permit for the user. Domestic use includes the use of water by a natural individual or by a family or household for household purposes, for farm and domestic animals up to the normal grazing capacity of the land whether or not the animals are actually owned by such natural individual or family, and for the irrigation of land not exceeding a total of three (3) acres in area for the growing of gardens, orchards, and lawns. Domestic use also includes: (1) the use of water for agriculture purposes by natural individuals, (2) use of water for fire protection, and (3) the use of water by non-household entities for drinking water purposes, restroom use, and the watering of lawns, provided that the amount of groundwater used for any such purposes does not exceed five acre-feet per year.⁶⁷

Easement: An interest in property giving the holder the right to make limited use of someone else's property for some limited purpose. For example, one party might hold an easement that gives them the right to run a water pipeline across someone else's property. The party holding the easement is not allowed on the other party's property except for purposes related to the use of the easement.⁶⁸

Fresh water: water that is not "salt water;" for the purposes of Oklahoma law, fresh water is water that contains less than 5,000 parts per million of total dissolved solids.⁶⁹

Groundwater: fresh water under the surface of the earth regardless of the geologic structure in which it is standing or moving outside the cut bank of any definite stream. In contrast, water that is beneath the surface of the earth, but between the banks of a defined stream, is considered stream water.⁷⁰

⁶⁰ NOAA Glossary of Hydrologic Terms, available at: http://www.nws.noaa.gov/om/hod/SHManual/SHMan014_glossary.htm

⁶¹ NOAA Glossary of Hydrologic Terms, available at: http://www.nws.noaa.gov/om/hod/SHManual/SHMan014_glossary.htm

⁶² See OKLA. ADMIN. CODE § 785:30-5-9. See also "Determination of Maximum Annual Yield" OWRB fact sheet, available at: http://www.owrb.ok.gov/studies/groudwater/arbuckle_simpson/pdf/DeterminMAY.pdf.

⁶³ OKLA. ADMIN. CODE § 785:20-1-2 and 82 OKLA. STAT. § 105.1 (A).

⁶⁴ NOAA Glossary of Hydrologic Terms, available at: http://www.nws.noaa.gov/om/hod/SHManual/SHMan014_glossary.htm

⁶⁵ OKLA. ADMIN. CODE § 785:20-1-2

⁶⁶ See OKLA. ADMIN. CODE § 785:20-1-2.

⁶⁷ 82 Okla. Stat. §§ 105.1, 1020.1 and Okla. Admin. Code §§ 785:20-1-2, 785:30-1-2.

⁶⁸ See Black's Legal Dictionary 527, 7th Ed. 1999.

⁶⁹ OKLA. ADMIN. CODE § 785:30-1-2.

⁷⁰ 82 OKLA. STAT. § 1020.1(1), OKLA. ADMIN. CODE § 785:30-1-2.

Gully plug: A barrier, often made of soil and/or rock, put in place across a gully to slow its erosion; such plugs may often form small ponds. Landowners may also use “gully plugs” as a tool to store small amounts of water (by regulatory definition, gully plugs must store less than five (5) acre-feet of water below their principal spillway and fifty (50) acre-feet below their emergency spillway).⁷¹

Interested party: A party whose claim to stream water or groundwater may be negatively affected by granting another party's request for water from the same source.⁷²

Intermittent stream: A stream that has defined beds and banks but does not flow year-round; it may instead only flow at irregular intervals (such as after rainfall).⁷³

Legal newspaper: A newspaper that is authorized to publish legal notices relating to the county in which the newspaper is circulated. A list of such newspapers is available at <http://www.okpress.com/business-members>.⁷⁴

Plat: a small map of a piece of property, often used to highlight specific features of interest.⁷⁵

Property right: A right given to the owner of a piece of property; a property right generally cannot be taken away from the property owner without legal proceedings.

Reservoir: A man-made facility for the storage, regulation, and controlled release of water.⁷⁶

Riparian: “Riparian” refers to something that lies alongside a stream. In the context of Oklahoma's water law, it is used to refer to the land next to a stream.

Salt water: Water containing 5,000 parts per million or more of total dissolved solids.⁷⁷

Setback: a minimum distance separating a groundwater well from a potential source of pollution.⁷⁸

Speculating: In the context of Oklahoma water law, applying for an appropriation of stream water or groundwater without a specific, present need for the water; “squatting” on water rights in anticipation that they can be sold at a profit to another party at some later date.

Stream water: water in a definite stream, including but not limited to water in ponds, lakes, reservoirs and playa lakes.⁷⁹

Total dissolved solids: a measure of how much dissolved material is in a volume of liquid. This is often expressed as a ratio of the dissolved material to the liquid, such as “parts per million” (with one part per million meaning that there is one unit of dissolved material for every million units of the liquid). Total dissolved solids (sometimes abbreviated TDS) is measured on a sample of water that has passed through a very fine mesh filter to remove suspended solids. The water passing through the filter is evaporated and the residue represents the dissolved solids.⁸⁰

Use scheduling: The establishment by the OWRB of a schedule for the use of a water appropriation. Typically, an OWRB permit provides for the same amount of water to be used each year, but under a “use scheduling” arrangement, different amounts of water use are permitted for each year.⁸¹

Water works: the land and equipment (such as dams, channels, piping, pumps, etc.) used to collect water and transmit it to where it will be used.⁸²

Watershed: the boundaries of a drainage area of a watercourse or series of watercourses which diverge above a designated location or diversion point, as determined by the OWRB. Put another way, a watershed is the area that is drained by a particular stream system.⁸³

⁷¹ 82 OKLA. STAT. § 110.3.

⁷² 82 OKLA. STAT. § 105.11.

⁷³ See definition of “definite stream” at OKLA. ADMIN. CODE § 785:20-1-2 and 82 OKLA. STAT. § 105.1(A).

⁷⁴ 25 OKLA. STAT. § 106.

⁷⁵ See Black's Legal Dictionary 1171, 7th Ed. 1999.

⁷⁶ NOAA Glossary of Hydrologic Terms, available at: http://www.nws.noaa.gov/om/hod/SHManual/SHMan014_glossary.htm.

⁷⁷ Defined at OKLA. ADMIN. CODE § 785:30-1-2.

⁷⁸ See OKLA. ADMIN. CODE § 785:30-1-2.

⁷⁹ OKLA. ADMIN. CODE § 785:20-1-2.

⁸⁰ See “Drinking Water Glossary: A Dictionary of Technical and Legal Terms Related to Drinking Water,” Environmental Protection Agency.

⁸¹ OKLA. ADMIN. CODE § 785:30-1-2.

⁸² 82 OKLA. STAT. § 1020.1(1), OKLA. ADMIN. CODE § 785:30-1-2.

⁸³ OKLA. ADMIN. CODE § 785:20-1-2.

Volume, weight, and flow units

1 gallon (gal)	= 231 cubic inches (in ³)
	= 0.13368 cubic feet (ft ³)
1 gallon of water weighs	= 8.345 pounds (lb)
1 million gallons (mg)	= 3.0689 acre-feet (ac-ft)
	= 133,700 cubic feet (ft ³)
cubic foot water	= 1,728 cubic inches (in ³)
	= 7.48 gallons
1 cubic foot of water weighs	= 62.4 pounds (lb)
1 acre-foot (ac-ft)	= amount of water to cover 1 acre 1 foot deep
	= 43,560 cubic feet (ft ³)
	= 325,850 gallons
	= 12 acre-inches (ac-in)
1 acre-inch per day (ac-in/da)	= 18.7 gallons per minute (gpm)
1 cubic foot per second	= 448.83 (typically rounded to 450) gallons per minute (gpm)
	= 7.48 gallons per second
	= 0.646 million gallons per day (mgd)
	= 0.992 (typically rounded to 1) acre-inch per hour (ac-in/hr)
	= 1.983 (typically rounded to 2) acre-feet per day (ac-ft/d)
	= 40 miners inches (11.25 gpm) — AZ, CA, MT, NV, OR
	= 50 miners inches (9 bpm) — ID, KA, NE, NM, ND, UT
	= 38.4 miners inches — CO

Table Source: NRCS Irrigation Guide, available at:
<http://www.wsi.nrcs.usda.gov/products/w2q/downloads/Irrigation/National%20Irrigation%20Guide.pdf>

Forms and Reference Materials for Oklahoma Water Appropriation

Title	Source	Location
"Right of Access for Stream Water Use"	OWRB	http://www.owrb.ok.gov/supply/watuse/pdf_wat/sw_access.pdf
"Application for a Permit to Use Surface or Stream Water," Form 503/5-08	OWRB	http://www.owrb.ok.gov/supply/watuse/pdf_wat/app_sw.pdf or at (405) 530-8800.
"Determination of land use and irrigated crop acres by remote sensing"	USGS	http://pubs.usgs.gov/wri/wri034155/pdf/section_2.pdf
"Fate of Precipitation Falling on Oklahoma Cropland"	OSU	http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6022/PSS-2140web.pdf
"Irrigation Water Measurement"	OSU	http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2225/BAE-1502web.pdf
"Legal Descriptions"	OSU	...
Water Map Server	OWRB	http://www.owrb.ok.gov/maps/server/wims.php
"Legal Notice Guide"	Oklahoma Press Association	http://www.okpress.com/legal-notice-guide
Standards for Plugging Old Wells (Oklahoma Administrative Code at title 785, chapter 35, subchapter 11)	OWRB	http://www.owrb.ok.gov/util/rules/pdf_rul/2009adopted/Ch35-2009.pdf
Groundwater lease form	OWRB	http://www.owrb.ok.gov/supply/watuse/pdf_wat/gw_lease.pdf

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