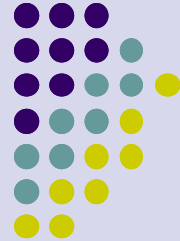


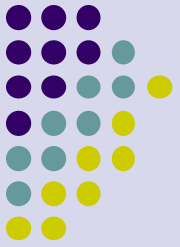
West Virginia Oil & Gas Conservation Commission

Deep Well Spacing and Pooling Considerations



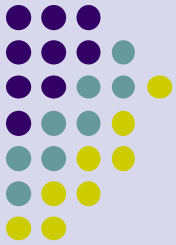
Presented by
Barry Lay
Chairman

Current make-up of the WV Oil and Gas Conservation Commission

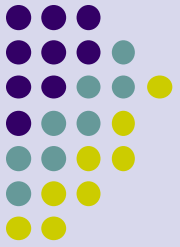


- **The Commission is composed of five members**
 - **Secretary of WVDEP - Randy Huffman or his designee, ex officio**
 - **Chief of the Office of Oil and Gas – James Martin, ex officio**
 - **Independent Producer – Robert Radabaugh, member – appointed by the Governor**
 - **Public Member – Anthony Gumm, member - appointed by the Governor**
 - **Registered Professional Engineer – Barry Lay, Chairman - appointed by the Governor**

The Oil and Gas Conservation Commission (OGCC) and its mandates

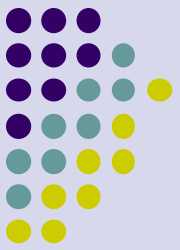


- **The OGCC came into existence by an act of the Legislature on March 9, 1972**
 - **As it stands today, the OGCC is tasked with:**
 - “Foster, encourage and promote exploration for and development, production, utilization and conservation of oil and gas resources;”
 - “Prohibit waste of oil and gas resources and unnecessary surface loss of oil and gas and their constituents;”
 - “Encourage the maximum recovery of oil and gas:”
 - “Safeguard, protect and enforce the correlative rights of operators and royalty owners in a pool of oil or gas to the end that each such operator and royalty owner may obtain his just and equitable share of production from such pool of oil and gas.”
 - **The OGCC regulates wells drilled for production or testing below the top of the Onondaga Limestone and Secondary Recovery**
 - **Exclusions from OGCC regulation are:**
 - Shallow wells producing from above the top of the Onondaga Limestone
 - Wells commenced or completed before enactment date, unless new deepening after that date
 - Gas Storage wells
 - Free gas rights
 - Regulating limits or proration of production or output, except as provided for in Code



The Duties of the Oil and Gas Conservation Commission

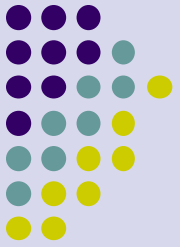
- **“The commission is hereby empowered and it is the commission’s duty to execute and carry out, administer and enforce the provisions of this article in the manner provided herein. Subject to the provisions of section three of the article, the commission has jurisdiction and authority over all persons and property necessary therefor. The commission is authorized to make such investigation of records and facilities as the commission deems proper. In the event of a conflict between the duty to prevent waste and the duty to protect correlative rights, the commission’s duty to prevent waste shall be paramount.”**
- **“Without limiting the commission’s general authority, the commission shall have specific authority to:”**
 - **“Regulate the spacing of deep wells”**
 - **“Make and enforce reasonable rules and orders reasonably necessary to prevent waste, protect correlative rights, govern the practice and procedure before the commission and otherwise administer the provisions of this article;”**
 - **“Issue subpoenas for the attendance of witnesses and subpoena duces tecum for the production of any books, records, maps, charts, diagrams and other pertinent documents, and administer oaths and affirmations of such witnesses, whenever, in the judgment of the commission, it is necessary to do so for the effective discharge of the commission’s duties under the provisions of this article;”**
 - **“Serve as technical advisor regarding oil and gas to the Legislature, its members and committees, to the chief of office of oil and gas, to the division of environmental protection and to any other agency of state government having responsibility related to the oil and gas industry.”**



What are a Drilling Unit and Pooling of interests

A drilling unit in simple terms is, as defined by the Conservation Commission code, as the acreage on which one well may be drilled for the production of oil and/or gas. The size will be determined by statute using the physical characteristics of the well reservoir and the drainage thereof. If multiple well pad drilling is used, all wells after the first well will require an exception location hearing.

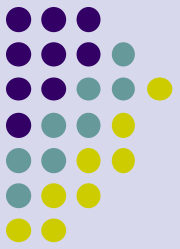
Pooling is what occurs when a well or proposed well either drains more area than contained in one lease tract or there are multiple interests in a tract and all of the outstanding interests and/or multiple tracts are combined into one unit and treated as one lease. The ownership in the unit is based on each owners interest in the whole unit and is prorated on that basis.



Pooling of Interests §22C-9-7-(a)

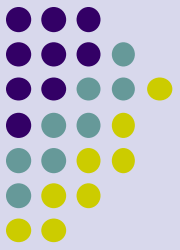
- **Drilling Units**

- Once a discovery well has established a pool, an application to establish a drilling unit may be filed with the Commission by the operator of such discovery deep well or by the operator of any lands directly and immediately affected by the drilling of such deep well or subsequent deep well in said pool
- Once the application for the drilling unit has been filed, the Commission shall provide notice to all interested parties
 - If the application does not conform to the existing rules of the Commission, then the Commission will set a hearing and provide notice to all interested parties
 - If the application does conform to the Commission rules and no objections are received, the drilling unit is formed



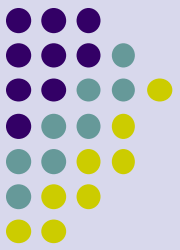
Pooling of Interests within the Unit §22C-9-7-(b)

- **When two or more separately owned tracts are embraced within a drilling unit, or when there are separately owned interests in all or a part of a drilling unit, the interested persons may pool their tracts or interests for the development and operation of the drilling unit**
 - **In the absence of voluntary pooling and upon application of any operator having an interest in the drilling unit, the commission shall set a hearing and provide notice to all interested parties**
 - **Each notice shall describe the area for which an order is to be entered in recognizable, narrative terms; contains such other information as is essential to the giving of proper notice, including the time and date and place of a hearing**
 - **After the hearing, the commission shall enter an order pooling all tracts or interests in the drilling unit for the development and operation thereof and for sharing production there from**
 - **Each such pooling order shall be upon terms and conditions which are just and reasonable and in no event shall drilling be initiated on the tract of an unleased owner without the owner's written consent.**



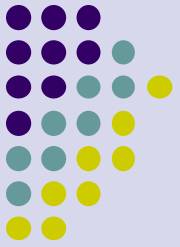
Spacing and Placement of wells within the Unit

- **WV Code has conferred upon the Commission, the authority to set spacing and unit sizes for all deep wells with some mandatory guidance**
 - Surface topography and property lines
 - The plan of deep well spacing then being employed or proposed
 - The depth at which production from said pool has been found
 - The nature and character of the producing formation or formations
 - The maximum area which may be drained efficiently and economically by one deep well
 - Any other geological or scientific data pertaining to said pool
- **No drilling unit shall be smaller than the maximum area which can be drained efficiently and economically by one deep well**
- **An existing order of the Commission may be modified by the Commission or by hearing**
- **The maximum size of a single unit shall not exceed 160 acres for oil well and 640 acres for a gas well, plus 10 percent.**



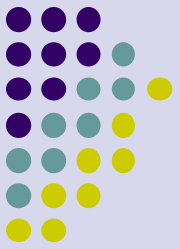
Spacing and Placement of wells within the Unit

- **By regulation, in the absence of Special Field Rules the default spacing for deep wells in the same formation or capable of producing from the same formation is defined as 3,000' with a requirement to be a minimum of 400' from lease or unit boundary**
- **If a proposed well meets the 3,000' spacing of a deep well or existing permit and meets the 400' distance from a lease line it is not necessary to form a compulsory or voluntary unit**
- **The Commission has the authority to grant exceptions to both default spacing and Special Field Rules spacing upon receiving a request from an operator for hearing**
- **Any operator may request that the Commission establish Special Field Rules covering any area contained within a pool. Special Field Rules may be established after hearing. However, the Commission shall require certain information include in code from the applicant**
- **Commission may issue an order requiring the operator of a well or wells to establish an interest bearing escrow account for the deposit of proceeds of conflicting working interests and/or royalty interest**



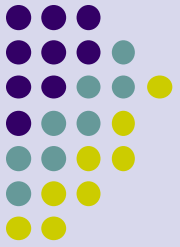
Lease Value and Unit Share

- **If the Commission establishes a unit, then the affected parties shall receive notice from the named operator to make an election under the terms as defined by WV Code were are as follows:**
 - **Option 1: To surrender such interest or a portion thereof to the participating owners on a reasonable basis and for a reasonable consideration, which, if not agreed upon, shall be determined by the commission; or**
 - **Option 2: To participate in the drilling of the deep well or on a carried basis under terms and conditions which, if not agreed upon, shall be determined by the commission to be just and reasonable**
 - **In the event a nonparticipating owner elects Option 2, and an owner of any operating interest in any portion of the pooled tract shall drill and operate, a deep well, then such operating owner shall be entitled to the share of production from the tracts or portions thereof pooled of the nonparticipating owner, exclusive of any royalty or overriding royalty reserved in any portion thereof, until the market value of such nonparticipating owner's share of the production, equals double the share of such costs**



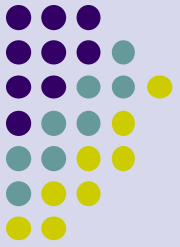
Lease Value and Unit Share

- **Option 2b: If a dispute shall rise as to the costs of drilling, completing, equipping, and operating a deep well, the commission shall determine and apportion the costs, within ninety days from the date of written notification to the commission of the existence of such dispute**
- **Once either a compulsory pooling unit or Special Field Rules unit has been established, ownership within either of those units shall be based upon their proportionate share of the acreage within the unit**



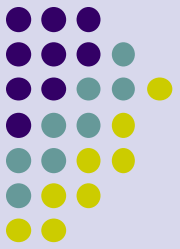
Determining size, priority and participation of interests within the unit

- **Once an application for compulsory pooling, Special Field Rules, or pooling of an existing well are received the Commission will determine the date, time and location of hearing to establish the parameters of the unit**
 - **At hearing, the Commission will receive evidence from all parties necessary to establish the size, priority and participation**
 - **Evidence should be detailed and technical in nature and should discuss geological, geophysical, geographical, reserves and economics for the proposed unit**
 - **Evidence should be presented covering the ownership of all the tracts within the proposed unit, including both mineral owners and mineral leases or operators**
 - **Evidence should be presented with regard to value of leases of like nature within the general area that have been acquired in recent history**
 - **Evidence should be provided with regard to drilling and completing the proposed well**
 - **Evidence should be provided with regard to monthly fixed and variable operating expenses**
- **Taking into consideration the application and all evidence as detailed above the Commission will enter an Order providing for the denial or establishment of a unit**



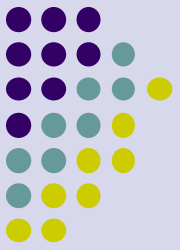
Information included on proposed well plats, maps or application

- **In addition to all the requirements of the Office of Oil and Gas, the commission will need the following on plats or on accompanying maps:**
 - All deep wells or deep well permits, including any laterals, within 3,000' of the well and if proposed well is horizontal or deviated, from any portion of a proposed lateral
 - If horizontal or deviated, include a second, clearly marked, topo tick mark for the toe
 - Delineate all leases shown on plat or map in which the operator has 100% development rights and if requesting compulsory pooling, delineate tracts operator is seeking pooling so the commission can distinguish between them
 - If forming either a voluntary or compulsory pooled unit, delineate the boundary of the proposed unit and include a table showing tract ID, Owner's name, total acreage, acres in the proposed unit, percentage of the proposed unit for each tract and total acreage in the proposed unit
 - If the operator is Compulsory pooling, include a table showing tract ID and percent of the unit
 - All units, both voluntary and compulsory pooled, require a Consent and Easement signed and recorded in the County Courthouse along with a statement on plat or map stating whether they are voluntary or compulsory
 - Show all distances from the well bore to the lease or unit boundary, if horizontal, show all well bore locations from surface to toe and distances from them to lease or unit boundary
 - If horizontal or deviated, show all tracts within 1,500' of the entire length of the well bore and include a table or page showing a tract ID, Operator's name, acreage and current address
 - If multiple wells from the same pad, shown other proposed wells and distance between laterals, the whole well bore must be in the unit even if there is a small over lap at the surface location



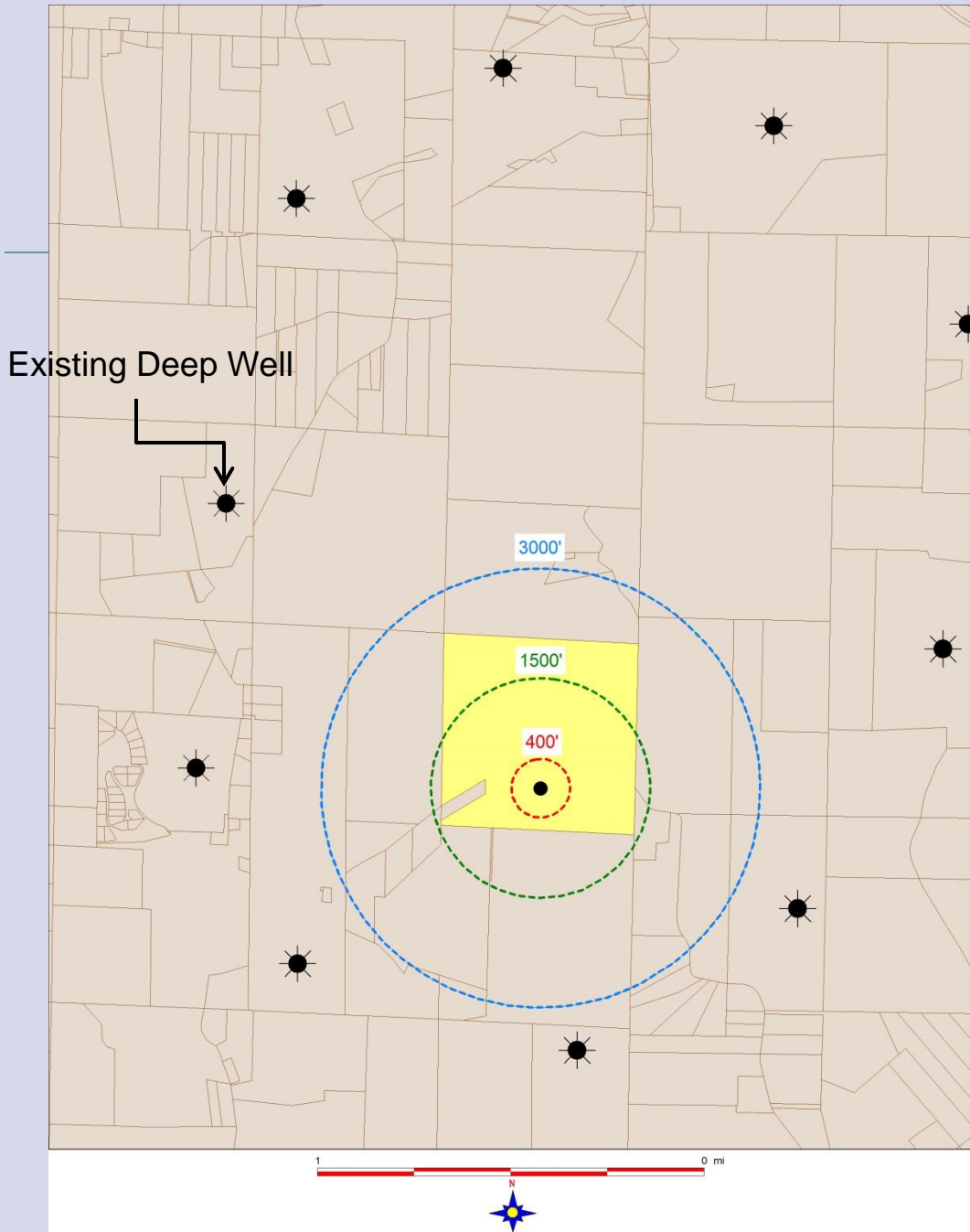
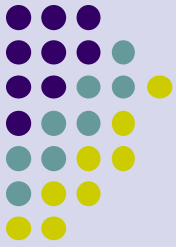
Benefits of Pooling

- **Prevention of waste, unnecessary wells and surface loss**
- **Prevents waste of resources by leaving unrecovered resources in place**
- **Allows development when parties are unable to voluntarily agree on a development plan**
- **Ensures owners of resources receive their fair and equitable compensation for the development**
- **Allow the establishment of Special Field Rules to uniformly develop the pool**
- **When pooling a unit, no drilling should be on a tract of an unleased mineral owner without their written consent**
- **In a voluntary or compulsory pooled unit, a consent and easement is required from the surface owner of the tract where the well is to be located**



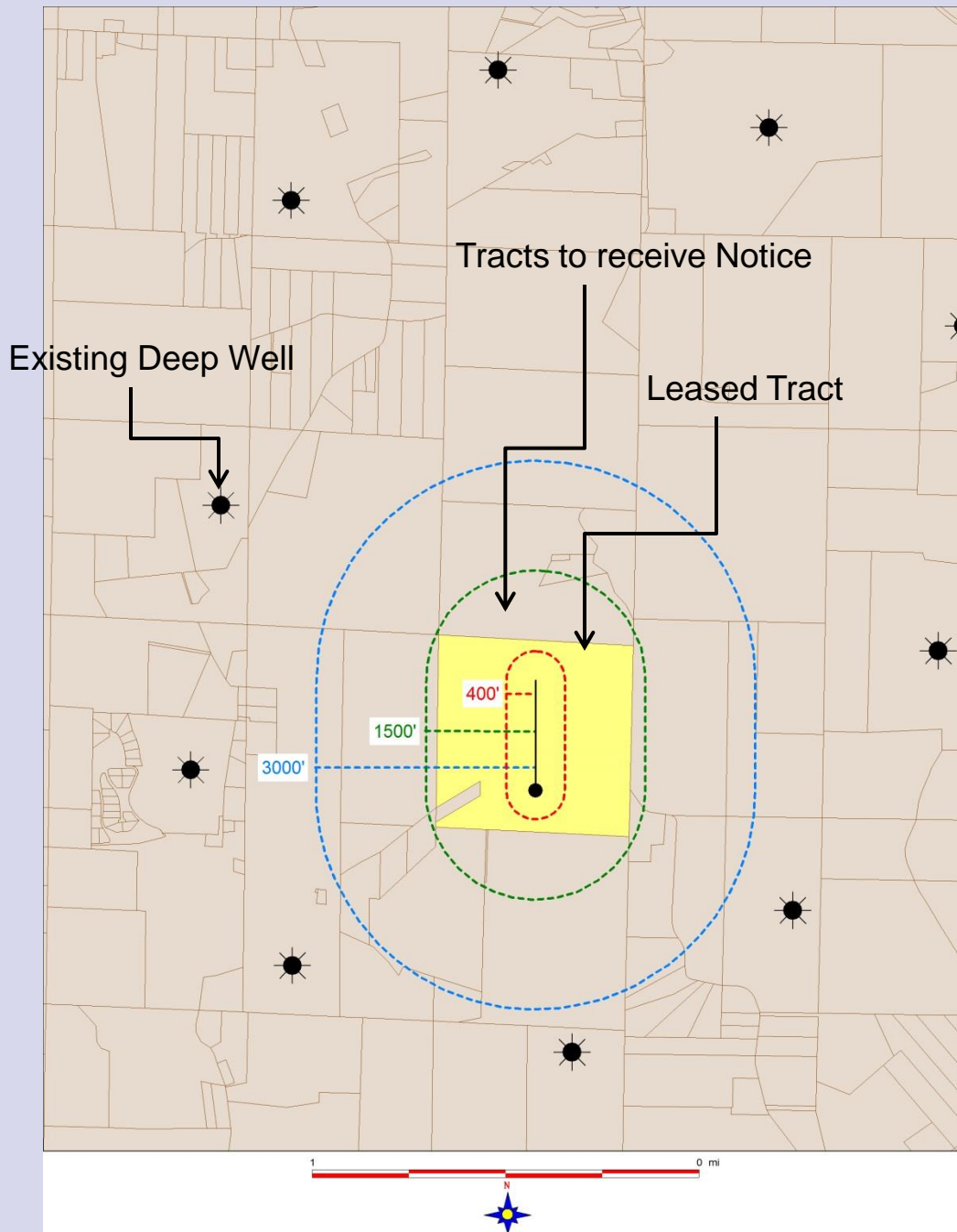
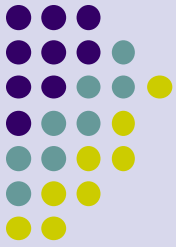
Points to consider with existing Pooling Law

- Ten years ago, horizontal drilling represented approximately 15% of the rig count, now, however, horizontal drilling represents approximately 75% of the total rig count
 - **The existing Conservation Commission code and rules do not adequately address Horizontal drilling**
- Drilling units and pooling of interests should be based on scientific evidence and be broad enough to allow for exceptions that exist in the type and quality of reservoirs
- The statute does not address either multi-lateral or multiple Horizontal wells from one drilling pad
- The existing statute protects correlative rights and offers remedies for all interested parties to protect their interest(s) and rights
- The existing statute does not address multiple well units or size limitations that may be an issue for long lateral horizontal wells



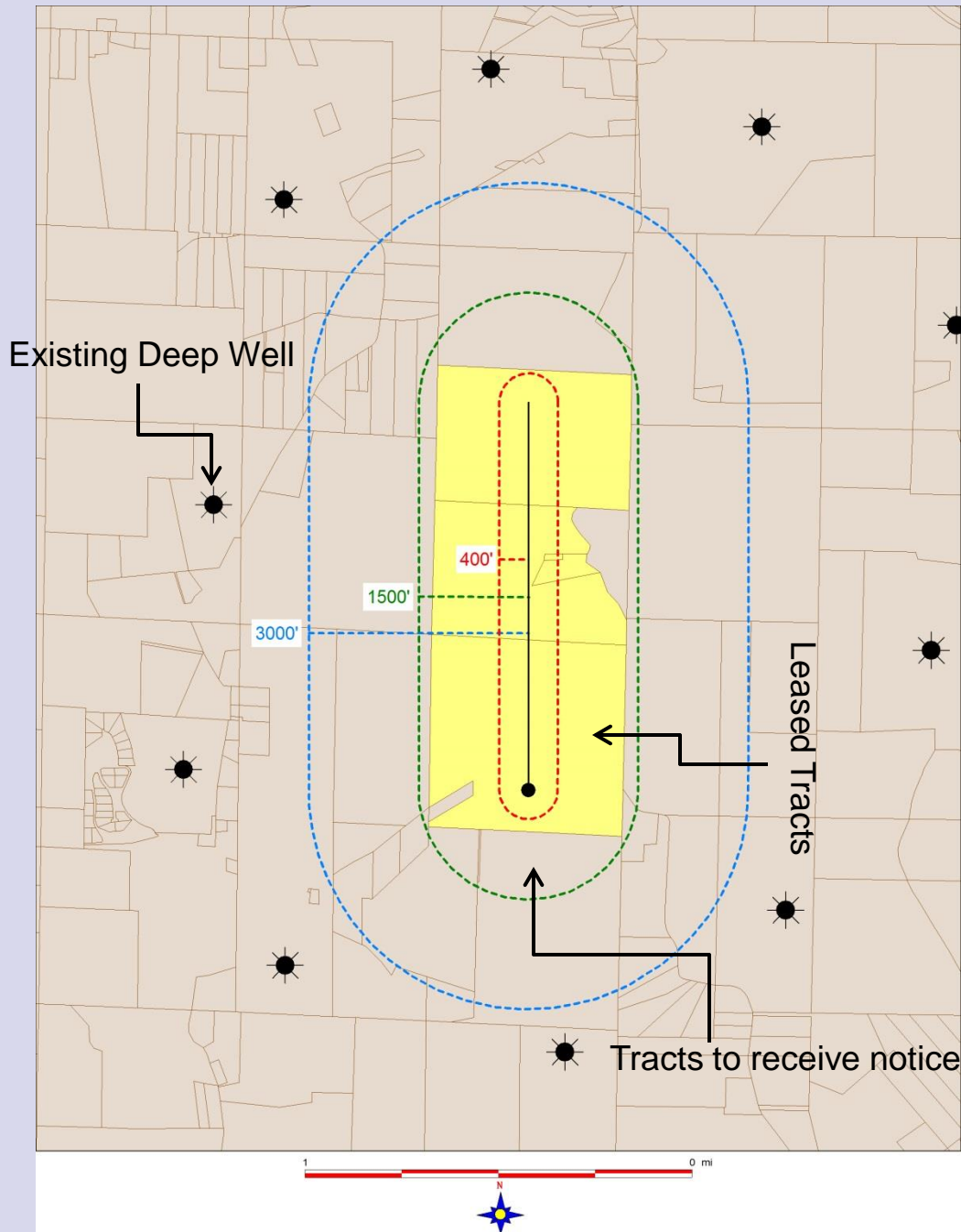
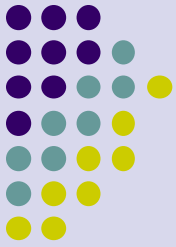
Normal Vertical Deep wells

- Proposed well meets criteria for well spacing, no other deep wells within 3,000'
- Proposed well meets the criteria for distance to lease or unit boundary > 400'
- No unit required
- No Consent and Easement Required
- No hearing is required, unless OGCC receives an objection



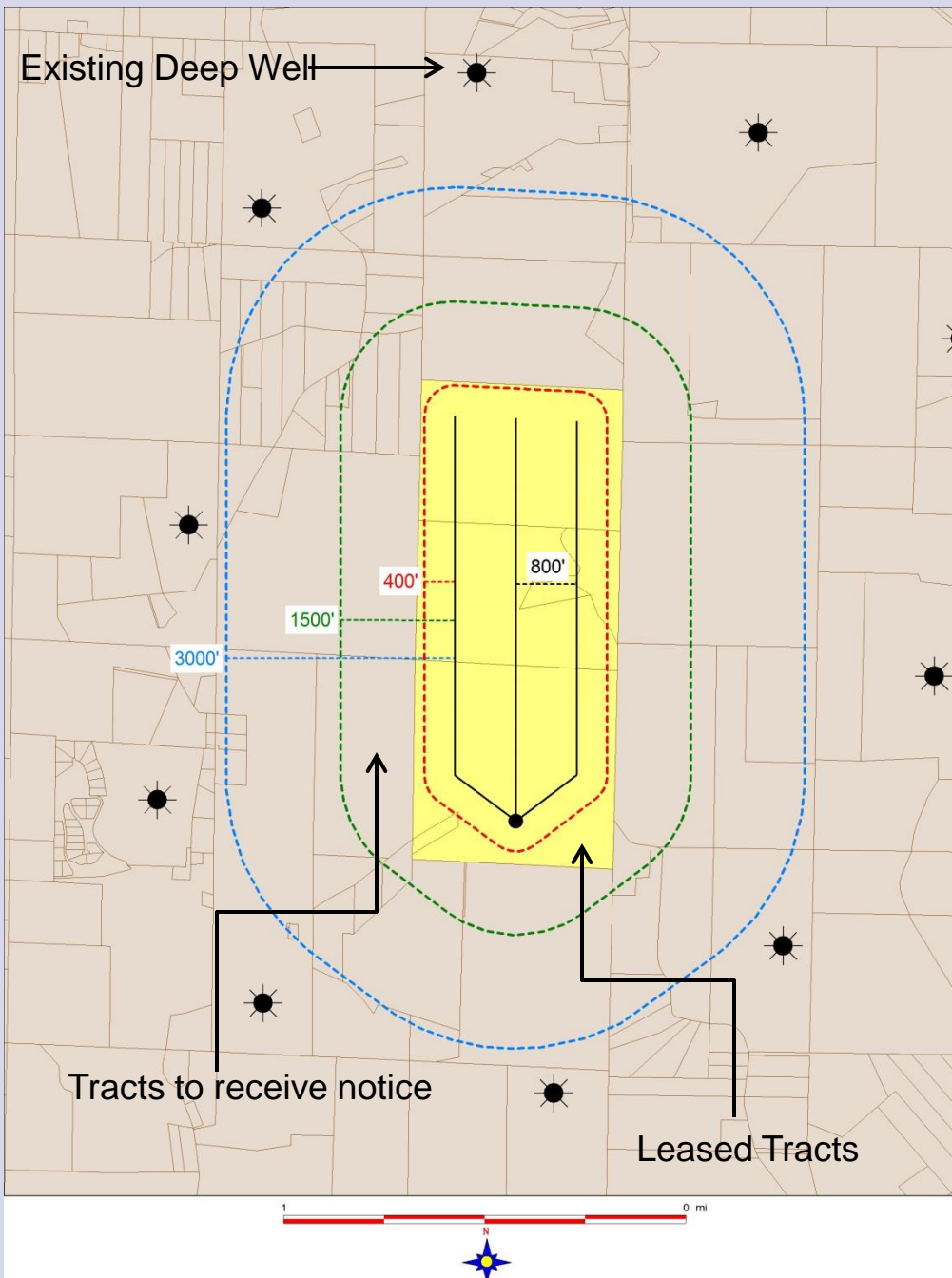
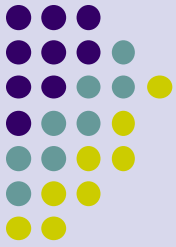
Deviated Deep wells

- Proposed well meets criteria for well spacing, no other deep wells within 3,000'
- Proposed well meets the criteria for distance to lease or unit boundary > 400'
- No unit required
- No Consent and Easement Required
- Requires notice of all operators who's leases fall within 1,500' of any part of the well bore
- No hearing is required, unless OGCC receives an objection



Single Horizontal Deep wells

- Proposed well meets criteria for well spacing, no other deep wells within 3,000'
- Proposed well meets the criteria for distance to lease or unit boundary > 400'
- A unit will be required
- A Consent and Easement will be Required
- Requires notice of all operators who's leases fall within 1,500' of any part of the well bore
- If a voluntary unit, no hearing is required, unless OGCC receives an objection



Multiple Horizontal Deep wells

- One of the proposed wells meets criteria for well spacing, no other deep wells within 3,000', second and third will require Exception Location Hearing
- Proposed wells meet the criteria for distance to lease or unit boundary > 400'
- A unit will be required
- A Consent and Easement will be Required
- Requires notice of all operators who's leases fall within 1,500' of any part of the well bore
- If a voluntary unit, no hearing is required, unless OGCC receives an objection beyond the Exception Location Hearing