

Guidelines and Rules to Implement the Secretary's 2012 Order

Designation of Development Areas

Pertinent Sections of the Order

Development Area: An area established by the BLM within the Designated Potash Area in consideration of appropriate oil and gas technology such that wells can be drilled from a Drilling Island Capable of effectively extracting oil and gas resources while managing the impact on potash resources. Each Development Area will typically have only one Drilling Island, subject to narrow exceptions based on specific facts and circumstances. All new oil and gas wells that penetrate the potash formations within a Development Area will be drilled from the Drilling Island(s) associated with that Development Area. The boundaries of each Development Area will be determined in conformity with Section 6.e.(2).

When processing an application for permit to drill (APD) an oil and or gas well in the Designated Potash Area that complies with regulatory requirements, the Authorized Officer will determine whether to establish a Development Area in connection with the application, and if so, will determine the boundaries of the Development Area and the location within the Development Area of one or more Drilling Islands from which drilling will be permitted. The BLM may also designate a Development Area outside of the APD process based on information in its possession, and may modify the boundaries of a Development Area. Existing wells may be included within the boundaries of a Development Area. A Development Area may include Federal oil and gas leases and other Federal and non-Federal lands.

Drilling Island. An area established by the BLM, usually associated with and within a Development Area, from which all new drilling of vertical, directional, or horizontal wells that newly penetrate the potash formations can be performed in order to support the development of oil and resources. The size and shape of a Drilling Island defines the area where wellbore penetrations of the potash formations will be allowed; this area is to be as small as practical to allow effective oil and gas development while managing impacts of potash.

The Authorized Officer will determine the appropriate designation of a Development Area in terms of location, shape, and size. In most cases, a single Drilling Island will be established for each Development Area. In establishing the location, shape and size of a Development Area and a associated Drilling Island, the Authorized Officer will Consider:

The appropriate location, shape and size of a Development Area and associated Drilling Island to allow effective extraction of oil and gas resources while managing the impact on potash resources;

The application of available oil and gas drilling and production technology in the Permian Basin;

The applicable geology of the Designated Potash Area and optimal locations to minimize loss of potash ore while considering co-development of both resources;

Any long term exploration and/or mining plans provided by the potash industry;

Whether a Barren Area may be the most appropriate area for a drilling Island;

The requirements of this Order; and

any other relevant factors.

As the Authorized Officer establishes a Development Area, the Authorized Officer will more strictly apply the factors listed in Section 6.e(2)(d), especially the appropriate application of the available oil and gas drilling and production technology in the Permian Basin, when closer to current traditional (non-solution) potash mining operations. Greater flexibility in the application of the factors listed in Section 6.e(2)(d) will be applied further from current and near-term traditional (non-solution) potash mining operations. No Drilling Islands will be established within one mile or any area where approved potash mining operations will be conducted within 3 years consistent with the 3 year-year mine plan referenced above(Section 6.d.(8)) without the consent of the affected potash lessee(s).

The Authorized Officer may establish a Development Area associated with a well or wells drilled from a Barren area as appropriate and necessary.

A part of the consideration for establishing Development Areas and Drillings Islands, the BLM will consider input from the potash lessees and the oil and gas lessees or mineral right owners who would be potentially subject to a unitization agreement supporting the Development Area, provided that the input is given timely.

Buffer Zones. Buffer Zones of $\frac{1}{4}$ mile for oil wells and $\frac{1}{2}$ mile for gas wells are hereby established. These Buffer Zones will stay in effect until such time as revised distances are adopted by the BLM Director or other BLM official, as delegated. However, the Authorized Officer may adjust the Buffer Zones in an individual case, when the facts and circumstances demonstrate that such adjustment would enhance conservation and would not comprise safety. The Director will base revised Buffer Zones on science, engineering, and new technology and will consider comments and reports from the Joint Industry Technical Committee and other interested parties in adopting any revisions.

Unitization and Communitization. To more properly conserve the potash, oil, and gas resources in the Designated Potash Area and to adequately protect the rights of all parties in interest, including the United States, it is the policy of the Department of the Interior that all Federal oil and gas leases within a Development Area should be unitized or subject to an approved communitization agreement unless there is a compelling reason for another operation system....

Should an oil and gas or potash operator desire to attempt to gather sufficient data for the BLM to establish a Barren Area in any part of the Designated Potash Area not defined as Barren, provisions and protocols are included in this Order for the operator to review relevant data in the area to design a core acquisition program (see Section 6.e(8)(b)(c) of this Order) and to obtain access to the land to acquire core data (see Section 6.e(6)(d)). The BLM will develop and employ, as appropriate, data management protocols to protect the appropriate use of the data in its records. The BLM will use such newly acquired data to determine the resulting potash ore quality and make any changes to potash reserves and resources maps indicated by the new data.

Exploration for potash on lands leased for potash is permitted only with approval by the BLM, in consultation and coordination with the potash lessee, of an exploration plan in accordance with 43 CFR Subpart 3592 and subject to the terms and conditions of the potash lease.

An oil and gas or potash operator may apply for an exploration license to drill core holes necessary to define the absence or existence and extent of mineable potash reserves in areas within the Designated Potash Area. Exploration licenses allow the exploration of known, unleased mineral deposits to obtain geologic, environmental, and other pertinent data concerning the deposit. See 43 CFR Subpart 3506. These licenses can be obtained from the Carlsbad Field Office, BLM. Costs for such exploration may be shared consistent with the provisions of 43 CFR 3506.14, if applicable.

Maps of mine workings and surface installations and records of core analyses that a potash lessee is required to file pursuant to applicable operating regulations (43 CFR 3590) will be available for inspection at the Carlsbad Field Office, BLM. These records are available for viewing by any party holding an oil and gas lease on the same lands insofar as such records are pertinent to the development and protection of oil and gas deposits.

In order for an oil and gas or potash operator to establish and design a core acquisition program for the purposes of proving a Barren Area, those records of core analyses in the area of the planned program that are necessary to design that program should be provided in a timely fashion by the BLM to the operator of the planned program to the extent allowed by law, subject to data management protocols as referenced in Section 6.e.(6)9c), and consistent with 43 CFR Part 2 and Sections 3503.41-.43. The BLM will use all data available to it when delineating Barren Areas.

The BLM will obtain and use the best science available when administering this Order consistent with Departmental Manual chapters 305 DM 2 and 305 DM 3. The BLM will comply with the requirements of Secretary's Order 3305, Ensuring Scientific Integrity within the Department of the Interior, dated September 29, 2010...

Setting up a Development Area

Development Areas are established by the BLM and can be anywhere within the Secretary's Potash Area, however Development Areas are not required in all locations. Development Areas are not restricted to potash enclave; they are generally required in areas of measured reserves, indicated and inferred resources, and areas of unknown mineralization.

The Authorized Officer will determine the appropriate designation of a Development Area in terms of location, shape, and size. They may include oil and gas leases on Federal, State and private lands. A Development Area may include all or part of an existing lease, Unit, Comm. or any other boundary, or lands controlled by a lessee, operator or company. Development Areas will be established with the intent of developing the greatest amount of oil and gas resources from the available Drilling Islands.

The boundaries of a Development Area can be modified by the BLM when a situation arises which BLM determines benefits the management of the resources. Development Areas can include existing oil and gas wells that are not part of a Drilling Island established for the Development Area. These existing wells will not be turned into additional Drilling Islands unless BLM determines that no potash resources will be affected and the additional Drilling Island will benefit the recovery of resources. These wells will

normally be produced until they are no longer produce economic quantities. At that time they well be properly plugged and abandoned.

There are areas within the boundaries of the Secretaries Area which are not accessible within the limits of current horizontal drilling technology. These areas are primarily under open mine workings and proposed mine workings. Development Areas may or may not be established for these areas. If these areas are deemed necessary to be part of a Development Area, then they will be included (much like in a Unit) and may have production allocated to that portion which is non-producing.

Development Areas may include all or part of a Unit, Communitization Area or a lease.

Development Areas are not restricted to potash enclave; they are generally required within the boundaries of the Secretary's Potash area. There are exceptions in some cases when the authorized officer concludes that areas can be produced without setting up Development Areas:

- Large areas known to be barren of mineralization, outby the area of known mineralization,
- Large areas known to be barren of mineralization, within areas of known mineralization,
- Areas where there are sufficient drill islands, such that an individual lease can be developed in such a way as not to block other leases from development, and
- Areas which are deemed highly developed for oil and gas.

When establishing a Development Area, there are four (4) initial approaches. A Development Area can be initiated by:

- BLM;
- An APD;
- An oil and gas company; or
- A potash company.

When establishing a Development Area:

- BLM, in most cases, will consult with the potash industry, the affected oil and gas Lessees and the oil and gas operators on where and how the Development Area will be established. BLM makes the final determination.
- The State of New Mexico will be consulted when state minerals or lands are affected.
- When closer to the mines, the Development Area will be larger, approaching the limits of current horizontal drilling technology in the Permian Basin at the time the Development Area is established. In rare occasions, the Development Area may be larger than the limits of horizontal drilling technology. This may occur when an oil and gas lease is underlain by mine workings and an acceptable drilling location is further than current horizontal drilling technology and these lands can't more appropriately be included in another Development Area.
- Development Areas are generally rectangular. Example: 2 miles by 4 miles or 2 miles by 3 miles, etc., however they may have a different configuration. When practical, a large Development Area can be established with more than one Drilling Island.
- Generally one Drilling Island per Development Area, however this will depend on the size and shape of the Development Area and the physical situation in the general area.

- Development areas are likely to be sited around areas available for Drilling Islands. The orientation of a Development Area may be established such that oil and gas development can be accomplished under areas not open to drilling (Open Mine Workings, Three-year Mine Plan, Buffer Zones, etc.)

BLM Initiates a Development Area – BLM can establish a Development Area when the agency feels advance planning is advantageous to the development of oil and gas while managing the loss of potash. BLM will consider the following when establishing a Development Area:

- How to include the majority of leases within a Development Area (not stranding leases or parts of leases in such a manner they can't be produced from any Development Area),
- How oil and gas wells can be situated in a Developed Area so that the majority of an area is produced,
- How to limit loss of potash ore,
- How to site a Drilling Island to limit interfere with the development of the potash resources,
- Location of three year mine plans (No Drill Island within one mile of a three-year mine plan),
- Location of open mine workings,
- Location of buffer zones around three-year mine plans and open mine workings,
- Surface constraints – Wildlife habitat, ROWs, buildings, watersheds, topography, etc.
- Orientation of Oil and Gas leases,
- Concerns of oil and gas lessees, operators and the potash mines.
- Location of existing Drilling Islands.
- Location of potential Drilling Islands.
- Location of existing oil and gas wells.

Procedure for Establishing a Development Area.

There is not a one size all fits procedure. Priority will be given to Development Areas being established beneath open mine workings and three year mine plans. This allows for the maximum of acreage to be included within Development Areas, not stranding leases. The following procedure seems to work the best.

This Section is not Complete

- Development Areas should be established near open mine workings and three-year mine plans will be given a higher priority. This allows for the Development Areas to be established to the greatest extent under mine workings and areas to be mined in the near future. Once these areas are established then the outlying Development Areas can be established. Areas far removed from mining can have Development Areas established at any time. It is those areas near mining that need to be systematically established,
- Determine the best locations for Drilling Islands, ones from which the greatest amount of oil and gas resources can be produced while limiting the loss of potash reserves. (see Drilling Island Procedures – **NOT YET WRITTEN**)
- Drilling Islands need to be determined in the general area being considered for a Development Area, so the interaction of potential Development Areas can be evaluated.

- When determining the size of a Development Area, it is best to make them as large as possible. This may require more than one Drilling island being located within the Development Area.
- When making larger Development Areas, the oil and gas lessees and operators should be notified and agreements made. If too many problems arise or agreements between companies aren't possible, then smaller Development Areas will be considered.
- The effective date of a Development Area (that date at which drilling will be approved) will be the first day of the month following the signing of a contract, unit or communitization agreement by all parties with acreage within the Development Area.
- Participation in a Development Area – 100% participation is required prior to setting an effective date. Exceptions may be allowed on a case by case, limited basis. BLM will determine exceptions.

Modifying the Boundaries of a Development Area

BLM can modify the boundaries of a Development Area when a situation arises which BLM determines benefits the management of the resources. When the boundaries are modified the conditions above will be considered along with any other pertinent information available at the time. BLM will contact all oil and gas lessees in the Development Block and any affected lessee adjacent to the Development Block to respond to their concerns. The affected potash lessees will also be contacted to address their concerns.

Three year mine plans are dynamic which include all areas to be mined in the next three years. These plans are submitted by the potash industry and approved by the BLM. Any open mine workings connected or associated with a three-year mine plan are part of that three-year mine plan. Open mine workings can't be separated from a three-year mine plan, since they are utilized for access, ventilation and are subject to subsidence. Those portions of open mine workings which are adjacent to measured ore reserves will be subject to a one mile buffer. Open mine workings which are adjacent to known barren areas, are subject to the $\frac{1}{4}$ and $\frac{1}{2}$ mile safety buffers unless encumbered by a three-year mine plan or its one mile buffer. Drilling Islands can only be established within a three-year mine plan or appropriate buffer, with the approval of both BLM and the affected potash company(s).

Establishment of Drilling Islands

Development Areas, in most cases, will have a single Drilling Island established for that Development Area. Drilling Islands are established by the BLM. Drilling Islands, in many cases, will be established prior to a Development Area being designated. BLM will consider impacts to potash resources, the ability to produce oil and gas from the established Development Area, impacts to resources on the land surface, the proximity to a three year mine plan and associated buffer zones, and open mine workings.

When establishing a Drilling Island associated with a Development Area, BLM will consider:

- Existing Drilling Islands – Ones existing prior to the issuance of the Secretary's Potash Order of 2012.
- The areas where impacts to potash resources have already occurred,
- Areas where there will be no impacts to potash.
- Areas which are barren of potash mineralization,

- Areas which contain lower grade potash mineralization,
- Areas where drilling for oil and gas resources have already impacted potash reserves,
- Buffer Zones,
- Three-year mine plans and associated open mine workings, (No Drilling Island will be established within one mile of any are where approved potash mining will be conducted within 3 years consistent with the three-year mine submitted and approved, without the consent of the affected potash lessee(s).
- Impacts to resources on the land surface, (Archeological, Watersheds, Wildlife, Cave-Karst etc.)
- Impacts to man-made structures located on the surface,
- Other users of resources whether surface of underground,
- Possible configurations of the Development Area for the Drilling Island and surrounding Development Areas,
- Orientation of nearby oil and gas leases,
- Oil and gas resources to be developed from the Drilling Island,
- Subsidence from open mine workings,
- Location of open mine workings,
- Known geologic structures and events,
- Accuracy of the maps of potash mines.

When establishing a Drilling Island **not** associated with a Development Area, BLM will consider:

- All the above,
- And is jointly recommended to the Authorized Officer by the oil and gas lessee(s) and the nearest potash lessee(s). In cases where there are adjoining potash lessees, all affected lessees will recommend the Drilling Island.

BLM will:

- Consult with the affected oil and gas lessees, operators, and the potash mines,
- Document the shape and size of the Drilling Island,
- Document the reasons for establishing the Drilling Island at this location and all agreements,
- Will develop stipulations and conditions on how the Drilling Island will be developed,
- Determine (**accept**) who the operator(s) of the Development Area will be,
- Will approve APDs, such that the Drilling Island will be utilized to the fullest, and the oil and gas resources will be extracted to the greatest extent.
- Make the Drilling Island as small as practical to allow effective oil and gas development while managing the impacts on potash.

After designating or modifying a Development Area, the BLM will issue a Notice to Lessees informing the lessees that future drilling within the Development Area will only be from a Drilling Island. Once a Drilling Island is established, It will not be modified, unless absolutely necessary. Poor allocation of space on the Drilling Island does not constitute a good reason to modify the Drilling Island.

Maps of Potash Resources and Drilling Areas and Drilling Islands

BLM will maintain a GIS map with all information necessary to implement this order and boundaries and specifics of items implemented through this order. Most, but not all, the information will be available to the public.

This information will include:

- Boundaries of the established Development Areas,
- Current Drilling Islands,
- Oil and gas well locations, both plugged and operating wells,
- Core Holes with assays and appropriate geologic information, (Assay Data – Confidential unless necessary for developing a drilling plan to determine a barren area)
- ¼ and ½ mile buffer zones,
- Three-year mine plan buffer (One Mile buffer),
- Three-year mine plan – (Confidential) A mine plan of longer duration can be submitted, however only the first three years will be considered when developing the buffer of one mile from a three year mine plan. The additional data helps in determining the areas which are anticipated to be mined in the future, so BLM can manage the locations of Drilling Islands to limit impacts to resources.
- Potash resource data (Measured, Indicated, Inferred, Barren, and Unknown Areas)
- Oil and gas wells, (Producing, Temporarily Abandoned, Plugged and Abandoned, Water injection Wells and Injection Wells)
- Oil and gas leases,
- Potash leases,
- Mine workings by ore zone, both current and abandoned. (Confidential – Mine workings by ore zone are confidential unless exempted in writing by the potash company.) BLM will maintain a composite mine working layer for public disclosure.
- Mine shafts

Confidential Information

BLM will maintain all information which is confidential.

The three-year mine plans and core hole assays are confidential as per FOIA and the Trade Secrets Act? Core hole assays are exempt from disclosure under FOIA exemption 9 which states: “Geological and geophysical information and data, including maps, concerning wells.” Exemption 4 states: “trade secrets and commercial or financial information obtained from a person and privileged or confidential.” Core hole assays will be held as confidential unless the information is necessary for developing a drilling program to define a barren area as per the Secretary’s Potash Order of 2012. Core hole assay data necessary for determining a drilling plan is the first row of holes within a ? feet of the barren core hole. Core holes beyond that distance or beyond the first row holes are not necessary for establishing a drilling plan. The potash ore is not consistent enough to project beyond the standards of the Van Sickle Standard developed by the USGS.

Establishing Buffer Zones

Buffer zones are established by the BLM around all existing open mine workings and around all operating oil and gas wells or established Drilling Islands.

Buffer zones around existing open mine workings. - A ¼ mile buffer exists around open mine workings within which no wells will be drilled. In addition, a ½ mile buffer exists around open mine workings. Drilling Islands for oil wells or wells drilled no deeper than 100' past the bottom of the Delaware Mountain Group will be allowed in the area between the ¼ mile buffer and the ½ mile buffer. All Drilling Islands for wells deeper than the base of the Delaware Mountain Group will be classified as gas wells and will be located further than ½ mile from existing open mine workings.

Buffer zones around existing oil and gas wells or Drilling Islands – A ¼ mile buffer exists around all operating oil wells or wells drilled no deeper than 100' past the base of the Delaware Mountain Group. Wells drilled deeper than 100' past the base of the Delaware Mountain Group have a ½ mile buffer. Potash mining will not be allowed within the buffer if the mining within the buffer will cause geologic forces to damage the well.

- **Buffers around Three-year Mine Plans** – A one mile buffer exists around Three-year Mine Plans submitted by the potash mines in accordance with the 2012 Secretary's Order. Three-year Mine plans will be submitted by the potash mines at least annually by March 1, which represent the mining conducted within the past year and that what is projected to be mined in the next three years. The submitted plan can be for a period greater than 3 years, however only 3 years will be used in determining the one mile buffer. The additional data helps in determining the areas which are anticipated to be mined in the future, which enables BLM to manage the locations of Drilling Islands to limit impacts to resources. Three-year mine plans may be submitted more frequent than once a year if significant changes occur in mine planning. Submitting an interim plan does not preclude the end of year plan from being submitted on March 1. These plans will be held as confidential by the BLM

Questions Needing Addressed

What constitutes a Three Year Mine Plan? Is it just the area to be mined or does it include open mine workings, active or inactive, connected, sort of connected, or not connected.

How far from active mining do the Development Area sizes get reduced?

How is the oil well versus Gas well criteria changed?

General thoughts

Lease suspensions prior to the establishment of Development areas.

Limit time for agreements to be made.

How will the lease be brought out of suspension?

For leases with little time remaining when brought out of suspension how will this situation be accommodated.

Will a "contract" between lessees of a Development Area be considered in the same light as a Unit, in that a single well holds all leases within the DA.

What type of document will be utilized to determine the rights of the oil and gas lessees and the operator of a Development Area. Unit Agreement, Communitization Agreement, Drilling and Production Contract or other hybrid contract.

Units, coms, contracts. BLM must be a party to the contracts in order to manage resources and disputes.

Appeals and Dispute Resolution – How will it be handled – 43 CFR 3105?

Participation in a Development Area

Is it mandatory? Forcing a lessee to be included is against "property law". We may need to have the lessees elect to be in.

Is BLM concerned with how cost are allocated in a Development Area?

How will production to a stranded portion of a Development Area be handled.

Drilling thru a non-participating lease to reach a participating lease.

Does participation need to be 100%?