



Via email: fsm2500@fs.fed.us

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Thomas Tidwell
Chief
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1400 Independence Ave., SW
Washington, D.C. 20250

Groundwater Directive Comments
USDA Forest Service
Attn: Elizabeth Berger – WFWARP
201 14th Street SW
Washington, DC 20250

RE: Proposed Directive on Groundwater Resource Management, Forest Service Manual 2560; Federal Register May 6, 2014, Pages 25815 – 25824.

Dear Mr. Tidwell and Ms. Berger:

The American Exploration and Production Council (AXPC) appreciates the opportunity to offer comments on the proposed Directive on Groundwater Resource Management, Forest Service Manual 2560; Federal Register May 6, 2014, Pages 25815 – 25824, as requested in the referenced publication.

AXPC is a national trade association representing 34 of America's largest and most active independent natural gas and crude oil exploration and production companies. Our members are "independent" in that their operations are limited to the exploration for and production of natural gas and crude oil. Moreover, its members operate autonomously, unlike their fully integrated counterparts, which operate in additional segments of the energy business, such as downstream refining and marketing. AXPC members are leaders in developing and applying the innovative and advanced technologies necessary to explore for and produce crude oil and natural gas, both offshore and onshore from unconventional sources, and that allow our nation to add reasonably priced domestic energy reserves in environmentally responsible ways.

AXPC shares the Forest Service's (NFS) goals of ensuring environmental stewardship of groundwater resources. Given the existing robust regulatory frameworks in place under state laws and Congress' and the U.S. Supreme Court's consistent recognition that states have primary authority and responsibility for the appropriation, allocation, development, conservation and protection of the surface water and groundwater resources within their borders, this proposed set of groundwater

resource management directives will likely place water users of all types in a Catch-22 regulatory conflict with those state primacy authorities.

I. NFS Should Respect State Primacy and Defer to State Standards or Regulations on Surface Water and Groundwater Resources Management

Given the longstanding existing robust water resources management regulatory frameworks in place under state laws, an additional set of federal regulations/directives will lead to uncertainty, confusion, longer delays, potentially conflicting requirements, and, in some instances, a decrease in the development of resources on federal lands.

While the Objectives proposed in Section 2560.02 are laudable, the Policy requirements in Section 2560.03 can clearly result in conflicts with state laws and regulations, thus placing the regulated community in a precarious position of overlapping and conflicting requirements. Specific examples of this include:

- Section 2560.03.2 which would add a new, potentially conflicting and costly regulatory burden of extensive hydrogeologic analyses regarding water resource connectivity.
- Section 2560.03.6.f. appears to propose an NFS role in groundwater permitting off of USFS property. This would conflict with state primacy authority over water on state lands and could result in unwarranted administrative/technical burdens/costs/delays on water users in individual proceedings due to conflicting NFS and state viewpoints.

II. The States and Bureau of Land Management Effectively Regulate Oil and Gas Operations

In the midst of this proposed directive on groundwater management comes Section 2561.24 language which proposes new evaluation, assessment and establishment of terms and conditions on actual oil and gas operations that will likely conflict with current and effective regulations employed by states and the BLM. This is particularly troubling as a majority of the language in this Section is very general with little, if any, detail of what might be required of industry.

Given the existing robust oil and gas industry regulatory frameworks in place under state and BLM oversight authorities, an additional set of vague federal regulations/directives will lead to uncertainty, confusion, longer delays, increased costs, potentially conflicting requirements, and, in some instances, a decrease in the development of resources on federal lands.

III. Specific Comments for Consideration

1. Ref. 2560.03 - Policy
 - a. The National Forest System / US Forest Service (NFS) makes an assumption that all groundwater (GW) and surface water (SW) is interconnected, unless

demonstrated otherwise. This presumes that the NFS will manage all GW of any quality, quantity and depth. This is an excessive regulatory overreach by the NFS and in clear conflict with state laws and primacy over surface and groundwater management.

- b. Paragraph 4a provides for the consideration of proposed actions upon GW quantity, quality, and timing prior to approval of a proposed use. It is unclear how the NFS will conduct this effort in a timely and efficient manner to avoid costly delays.
- c. Paragraph 4d requires that monitoring and mitigation appropriate to the scale and nature of potential effects is conducted, evaluated, and reported when authorizing a proposed use that has a significant potential to adversely affect NFS GW resources. How is mitigation determined? What is the process? What does “significant potential to adversely affect” mean and how is this determined?
- d. Paragraph 5 states “...prevent, minimize, or mitigate to the extent practical, adverse impacts from Forest Service actions on groundwater resources...” What does “adverse impacts” mean and how is this determined?
- e. In Paragraph 6c, it states that the NFS will comment on proposed activities either on or off NFS lands that may adversely affect GW resources on NFS lands. In addition, paragraph 6f states the NFS will evaluate all applications to States for water rights on NFS lands and on adjacent lands that could adversely affect NFS GW resources and identify any potential injury to those resources. Does NFS have the technical expertise, manpower, funding and time to realistically accomplish this task? Again, what does “adversely affect” mean and how is this determined? What does “potential injury” mean, how is this determined, and who makes that determination?
- f. Paragraph 6d states the NFS will manage wellhead protection areas, source water protection areas, and critical aquifer protection areas; however, it is not clear if NFS will manage these areas following existing state and/or EPA requirements or create new, differing, overlapping or more stringent requirements. Clarification is needed.
- g. Paragraph 7c encourages the use of water sources located off NFS lands when the water use is largely or entirely off NFS lands, unless the applicant is a public water supplier. The NFS’s rationale for this statement is unclear and doesn’t account for any economic or risk analysis, conservation efforts, etc. Clarification is needed.
- h. Paragraph 7d requires implementation of water conservation strategies in operating plans for new and reissued special use authorization involving GW withdrawals from high-capacity wells; however, it is unclear how these conservation strategies will be determined or how the water user has input into the process. Clarification is needed.
- i. Paragraph 8b requires measurement and reporting to the NFS for all GW withdrawals from high-capacity wells located on NFS lands. This would be a new requirement if not required by the EPA, State or Tribes. Has the NFS

conducted a cost impact analysis for this effort to better understand the impacts to water users? Will the reporting be consistent and coincide with State reporting requirements? NFS should defer to State reporting requirements.

- j. Paragraph 8c, as described in the Notice, requires measurement and reporting of flows for all large water-injection wells located on NFS lands that open into a geologic formation containing fresh water involving less than 1,000 parts per million TDS; however, FSM 2500, Chapter 2560.03, 8c states 10,000 parts per million TDS. Clarification is needed as to which TDS quality threshold is correct. There is no detail or analysis as to how this compares with existing state requirements. NFS should defer to State reporting requirements.
 - k. Paragraph 9b states compliance with applicable federal, state, or local standards or other industry standards for the design, construction and abandonment of wells will be required for “existing” authorizations for affected water wells. It is unclear how changing design and construction standards could be included for wells that have already been constructed. Clarification is needed.
 - l. Paragraph 9g states, “Follow applicable State and EPA SDWA regulations for evaluating whether a groundwater source of drinking water is under the direct influence of surface water (FSM 7420). It is unclear when this needs to be done (implies in every application) and who (assume applicant) conducts this effort. Clarification is needed and the scope should be limited. This can be a very costly technical study.
 - m. Paragraph 10a states to use procedures in FSM 2160 to conduct the appropriate response to contaminated GW or a potential threat of contamination of GW. Does this differ or contradict state requirements and what is meant by “potential threat of contamination” and who determines this?
 - n. Paragraph 10b discusses the use of the NFS delegated authority under CERCLA for cleanup. How does the NFS work with, coordinate and utilize State’s cleanup requirements?
2. Ref. 2560.04a - Washington Office, Staff Directors
- a. Paragraph 1 proposes to ensure that policy development considers the potential impact on the quantity, quality, and timing of GW. This appears to be over-reaching and lacks any consideration of State’s primacy or its requirements.
3. Ref. 2560.05 - Definitions
- a. The proposed directive includes a number of terms that need to be defined. For example, substantial adverse consequences, adverse impacts, significant potential to adversely affect, potential for significant impacts, high probability for substantial impacts, substantial potential to adversely affect fresh water, etc.
 - i. High-capacity well - defined as 35 gpm is too low. Recommend between 70 - 100 gpm which would be more consistent with states typical thinking of high-capacity wells.
 - ii. Large-injection well – Recommend that the inside diameter of “4 inches or more” be changed to “8 inches or more”.

- iii. Groundwater – should be clarified as to not include produced water.
 - iv. Sustainable use – it should be pointed out that this definition may conflict with State GW and SW laws on beneficial use.
- 4. Ref. 2561 - Consideration of Groundwater Resources in Forest Service Projects, Approvals and Authorizations
 - a. Paragraph 1 assumes that there is a hydrological connection between groundwater and surface water, regardless of whether State law addresses these water resources separately, unless a hydrogeological evaluation using site-specific data indicates otherwise. This seems overly broad and far reaching for all GW. It will be unnecessarily costly and time consuming to disprove the connection.
 - b. Paragraph 2 states that prior to implementation or approval, assess the potential for proposed Forest Service projects, approvals, and authorizations to affect the groundwater resources of NFS lands. Who conducts this assessment? What data is required, etc.? Also, it states that if there is a high probability for substantial impact to NFS groundwater resources, including its quality, quantity, and timing, evaluate those potential impacts in a manner appropriate to the scope and scale of the proposal. What is meant by “high probability for substantial impact”, “in a manner appropriate to the scope and scale”, and who determines this?
- 5. Ref. 2561.1 – Conjunctive Uses of Groundwater and Surface Water
 - a. Paragraph 1 & 2 - Clarification is needed as to who conducts this effort, and what information is required. Will there be adequate staffing to constantly monitor dynamic hydrologic conditions in order to utilize this concept? If this effort is required to be conducted by the applicant, has the NFS evaluated the cost impacts to applicants and how will costs be minimized?
 - b. In many areas, the interconnections between surface and groundwater and the relationship to watersheds are going to be much less direct and obvious than for some other hydrologic situation across the nine NFS regions.
 - c. An integrated management plan is both unwarranted and unrealistic to manage under the hydrologic conditions for areas across these regions.
- 6. Ref. 2561.2 – Minerals and Energy Development
 - a. This section states that the NFS will ensure that all holders of written authorizations for minerals or energy development appropriately address compliance with EPA’s Underground Injection Control Program (40 CFR parts 144 and 146) or State equivalent to protect underground sources of drinking water. States and/or EPA already have jurisdiction for UIC wells. It is unclear why the NFS needs to “double-check” their efforts. Also, what is meant by “appropriately address”? In addition, this section appears to say that NFS will evaluate this issue everywhere, on and offsite of NFS lands. Clarification is needed.
- 7. Ref. 2561.24 – Oil and Gas Operations

- a. Overall, this section appears to usurp the State's, EPA's and/or BLM's authority over O&G activities for the various issues. This is an unnecessary, duplicative, possibly contradictory, costly and time consuming effort that provides no environmental benefit.
 - b. What is meant by "non-traditional shallow natural gas leasing or development" in Paragraph 3? Clarification is needed as geological and hydrogeological assessments can be quite complex and time-consuming and not necessarily fit the true effect of the development.
 - c. Paragraph 5 & 6 imply that more requirements may be needed above and beyond State's and BLM's requirements. Why are more requirements needed? How are States and BLM's requirements inadequate?
8. Ref. 2562.1 – Authorizations for Water Supply Facilities
- a. In paragraph 1 it is unclear if "encouraging" water users to employ new treatment technology is a requirement or not. Clarification is needed. Paragraph 2 requires applicants to evaluate "all" other reasonable water alternatives. Who determines what "all" is? Also, how will the economic impacts of these requirements on users be considered?
 - b. Paragraph 3 requires the implementation of water conservation strategies deemed appropriate by the authorized officer. How will users have input into these strategies and how will the cost impacts on users be considered by the NFS? Also, the paragraph needs to be clarified that for existing uses, additional requirements can only be added upon the consent of the water user.
9. Ref. 2563.1 – General Requirements for Authorizing Water Wells and Water Pipelines
- a. Paragraph 2 states that the authorized officer has the discretion to determine whether to authorize new water wells or water pipelines that are not expressly authorized under DOI or USDA regulations for mineral or energy exploration, development, or production. Operators need more regulatory certainty as to what the criteria is for rejection of an application.
10. Ref. 2563.2 – Pre-Proposal Meetings for Proponents of New Water Wells or Water Pipelines
- a. This section states that the process for securing State water permits, licenses, registrations, etc. should proceed concurrently with the NFS process; however, this may not be feasible for O&G operations as they may be on a short time frame or need to be conducted well in advance to avoid delays. Clarification is needed as to what the intent of this statement is and allow for exceptions.
11. Ref. 2563.3 – Requirements for Proposals Involving New Water Wells or Water Pipelines
- a. Paragraph 1 states that NFS can deny proposals to construct wells on or pipelines across NFS lands which can reasonably be accommodated on non-NFS lands and which the proponent is proposing to construct on NFS lands because they afford a lower cost and less restrictive location than non-NFS lands. Does NFS have the legal authority for this requirement? This

provision could be in direct conflict with State water primacy laws and regulations.

- b. Paragraph 2 provides additional requirements for new high-capacity water wells or large water injection wells; however, as defined, this could include a significant number of wells. How will the NFS evaluate the required information in a timely manner to avoid delays and how will the cost impacts to users be assessed by NFS? Also, this paragraph discusses mitigation. More clarity is needed as to what this includes, how it is determined, etc.

12. Ref. 2563.4 – Requirements for All Applications Involving Water Wells or Water Pipelines

- a. In reference to paragraphs 3 and 4, the Notice states that applicants will conduct this effort. Clarify the text in the FSM to be consistent. Also, it is unclear what the requirements would include, how the cost impacts on the applicants will be considered, etc.?
- b. Paragraph 6 allows the NFS to deny applications after significant time and funds have been spent to provide the NFS with the required information. Applicants need regulatory certainty as to what the criteria/rationale for denial would be in order to better understand and assess the risks of the process.

13. Ref. 2563.6 – Additional Analyses for Applications Involving Water Wells or Water Pipelines

- a. This section provides additional requirements on the applicant. Paragraph 2 specifically allows the NFS to deny an application after considerable time and funds have been spent. Again, applicants need regulatory certainty as to what the criteria/rationale for denial would be in order to better understand and assess the risks of the process. More detail is needed so that applicants can better assess the cost impacts in this section. Also, more clarity is needed as to what “substantial mitigation measures” means/includes.

14. Ref. 2563.7 – Terms and Conditions in Special Use Authorizations for Water Wells and Water Pipelines

- a. This section is about adaptive management and allows the NFS to modify the terms and conditions at the sole discretion of the authorized officer. Again, applicants need regulatory and cost certainty and need to be able to plan and budget for their operations. An ever-changing regulatory scheme does not allow that to occur. How does NFS plan to ensure reasonable regulatory and cost certainty?

15. Ref. 2563.8 – Monitoring and Mitigation for Water Wells and Water Pipelines

- a. In this section, there are a number of issues that need more clarification and detail. For example, what does “substantial potential to adversely affect” mean, what does “minimize damage to scenic and aesthetic values” include, what do “mitigation measures” include and how are they determined, etc.?

16. Ref. 2564 – Measuring and Reporting Volume of Extracted or Injected Water

- a. Paragraph 4 requires reporting to NFS on the same timetable of any groundwater withdrawal, injection, or use that is reported to local, State, or other Federal authorities. NFS should ensure that its format is the same as the local, State, or other Federal authorities to ensure that unnecessary work is not created for a water user/injector. This comment would apply elsewhere in the document for similar reporting requirements.
 - b. Paragraph 5 is confusing and needs clarification to make it more understandable (i.e. align with FR Notice, page 25822).
17. Ref. 2565 – Cleanup of Contaminated Groundwater
- a. The State typically has jurisdiction for cleanup efforts and the NFS should defer to the State’s O&G/Environmental regulatory agency for applicable O&G cleanup requirements.
18. Ref. 2567 – Legal Considerations in Managing Groundwater Resources
- The NFS should defer to the State’s and/or EPA’s jurisdiction for the various programs that protect GW and SW and avoid any unnecessary, duplicative, and contradictory requirements that would further delay or be excessively costly to applicants for activities conducted on federal lands.

IV. USFS Should Withdraw the Proposed Directive and Consult With States

In a June 24, 2014 hearing before the U.S. House of Representatives Committee on Natural Resources, Subcommittee on Water and Power, Wyoming State Engineer Patrick Tyrrell testified that the proposed directive “challenges Wyoming’s authority over groundwater within our borders, including Wyoming’s primacy in appropriation, allocation and development of groundwater”. He further testified that “the assumptions, definitions, and new permitting considerations contemplated under the Proposed Directive materially interfere with Wyoming’s authority over surface and groundwater, and will negatively impact the State’s water users”. Mr. Tyrrell further states that “the Proposed Directive was created without state consultation” which “denied the State an important consultative role” while “treating the State as a simple commenter on federal directives ignores the State’s primary authority as recognized by Congress dating from the 1800’s including the McCarren Amendment (relied upon by the states since 1952) and the United States Supreme Court”. Mr. Tyrrell concludes his testimony by stating “the best action the USFS could take would be to retract the current notice and comment period and thereby honor the law that gives the states authority over the adjudication, administration and regulation of water rights within their boundaries”.

In a July 2, 2014 letter to Secretary Tom Vilsack, the Western Governors’ Association (among other issues) stated that USFS proposed directive only identifies states as “potentially affected parties” and that the proposed actions would “not have substantial direct effects on the states”. Their letter goes on to say that WGA’s initial review of the proposed directive leads them to believe that it could have “significant implications for our states and our groundwater resources” and urges USFS to “seek authentic partnership with the states to achieve appropriate policies that reflect both the legal division of power and the on-the-ground realities of the region”.

AXPC appreciates the opportunity to comment on the Proposed Directive on Groundwater Resource Management. It is our recommendation that the USFS follow the advice of both the Western Governors' Association and the Wyoming State Engineer to withdraw the current notice and comment period so as to enter into comprehensive consultation with the states prior to any future notice and comment period.

Sincerely,

A handwritten signature in blue ink, appearing to read "V. Bruce Thompson". The signature is fluid and cursive, with a long horizontal stroke at the end.

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