designated critical habitat of a protected species.

Floodplain Statement of Findings

DOE included a Floodplains and Wetlands Assessment as appendix B in the final EIS. The assessment and these findings have been prepared in accordance with DOE's regulations ''Compliance with Floodplain and Wetland Environmental Review Requirements,'' 10 CFR Part 1022. DOE has concluded that there are no practicable alternatives to construction within floodplains for the individual proposed new SPR sites or expansion sites. Site locations, the location of onsite facilities, and site access roads are dictated by the locations and configuration of the salt domes, which constitute a unique geologic setting. In addition, DOE needs a raw water source that is adequate for solution mining of storage caverns. Similarly, because the salt dome sites are largely located in lowland areas surrounded by wide expanses of floodplain, there are no practicable alternatives to the location of the pipelines running to and from these sites within floodplains. The raw water intake structures and associated pipeline rights-of-way also are water dependent because of their function and therefore cannot be located outside of the floodplain associated with the water source. Pipelines, power lines, and roads cannot avoid crossing waterways and the associated floodplains. DOE considered alternatives for minimizing the potential impacts of pipeline and power line rights-of-way in floodplains and wetlands. The primary approach that DOE employed was to select pipeline and power line rights-of-way along existing rights-of-way. The Gulf Coast consists of a large number of gas and oil fields and associated facilities, which offer a network of existing pipeline and power line rights-of-way. This network of utilities enabled DOE to minimize the potential impacts to floodplains and wetlands. Floodplain maps of all the alternatives considered in the EIS are available in appendix B of the final EIS.

To comply with Executive Order 11988, Floodplain Management, and DOE's regulations, DOE will follow the U.S. Water Resources Council's (1978) Floodplain Management Guidelines for Implementing Executive Order 11988 and the Federal Emergency Management Agency's Unified National Program for Floodplain Management while planning its mitigation strategy for the selected SPR alternative. Those actions would include the following: the use of minimum grading requirements to save as much of the site from compaction as possible; returning the site and rights-of-way to original contours where feasible; preserving free natural drainage when designing and constructing roads, fills, and large built-up centers; maintaining wetland and floodplain vegetation buffers to reduce sedimentation and discharge of pollutants to nearby water bodies, where feasible; constructing stormwater management facilities (where appropriate) to minimize any alteration in natural drainage and flood storage capacity; directional drilling of larger wetland and stream crossings, where feasible; locating buildings above the base flood elevation or flood proofing; complying with the floodplain ordinance/regulations for the jurisdiction where the selected alternative is located; and performing a hydrological demonstration (using the U.S. Army Corps of Engineers' Hydrologic Engineering Center, Hydrologic Modeling System or an approved floodplain model) to confirm that proposed fill and structures within the floodplain would not increase the base flood elevation.

Any structures located within the floodplain would be designed in accordance with the National Flood Insurance Program (NFIP) requirements for nonresidential buildings and structures located in special flood hazard areas. The NFIP regulations require vulnerable structures to be constructed above the 100-year flood elevation or to be watertight. DOE would coordinate with and secure approval from the floodplain coordinator at the appropriate state agency or the local government, if it has adopted the NFIP, during the design stage/site plan process.

Decision

DOE has decided to: construct a new storage facility at Richton, MS, with a total capacity of 160 MMB of crude oil; expand the storage capacity of two existing SPR sites by a total of 113 MMB by developing 8 new 10–MMB caverns at Big Hill, TX, developing 2 new 11.5–MMB caverns at Bayou Choctaw, LA, and acquiring an existing privately-owned 10–MMB cavern that lies within the Bayou Choctaw site; and fill the SPR to 1 billion barrels, as authorized by Congress.

Basis for Decision

DOE's decision is based on careful consideration of the environmental impacts of the alternatives along with an evaluation of SPR distribution capabilities, geological technical assessments, projected costs, and operational impacts associated with existing commercial operations.

The Stratton Ridge alternatives were not selected based on the new storage site's location within the Seaway crude oil distribution complex and the site's potential impacts to existing commercial operations. The SPR currently has two large sites, Bryan Mound and Big Hill, which can adequately serve refiners in the Seaway distribution complex. Additional storage in this area would not enhance the SPR's distribution capabilities or address the SPR's need for increased oil storage in the Capline distribution complex, which serves the refiners on the lower Mississippi River and the Capline Interstate Pipeline system. In addition, Dow Chemical Company, which occupies the majority of the Stratton Ridge salt dome, relies on the salt for its petrochemical operations. Dow submitted comments on the draft EIS stating that the property is critical to its future salt needs and continuing operations of Dow Chemical in Freeport, TX.

The primary reason for not selecting the Bruinsburg alternatives is the small size of the salt dome, which only has the capacity to store up to 70 MMB of oil, as discussed above. Also, due to its location, development of the caverns at Bruinsburg would require disposing of large volumes of brine through underground disposal wells. DOE has extensive experience with underground brine disposal wells for smaller volumes. Injection wells can be difficult and expensive to operate, the geology must be appropriate for wells to be drilled, and the receiving aquifer must be hydrologically suited for injections. Disposing of large volumes of brine through underground injection at Bruinsburg presents significant development risks.

The Chacahoula alternatives were not selected based on significant potential environmental impacts to the Louisiana wetlands. The entire site is located in an ecologically important bald cypress forested wetland area. The alternatives were estimated to potentially impact a total of 2,502 acres of wetlands, requiring extensive wetland mitigation.

The Richton alternatives present significant benefits relative to the other alternatives by enhancing the SPR's oil distribution capabilities with connections to the Capline Pipeline System as well as refineries and marine facilities in Pascagoula. The Richton salt dome is large and undeveloped, which provides DOE with sufficient capacity to develop 160 MMB of storage space without potential impacts to other commercial operations or high geotechnical risk. The Richton site is also located approximately 80 miles