

Great Sand Dunes National Park and Preserve



Water, Water Everywhere - Perspectives

Choose at least five of the following perspectives to be members of your panel. The perspectives you choose must relate to the problem selected for your Town Hall meeting. General information about each perspective is given, but as part of the activity, students can invent additional details, as long as they are consistent with the character and scenario.

Potential fictitious representatives who may be participating in the Town Hall:

- **Great Sand Dunes Visitor** - As a visitor to Great Sand Dunes, each year he/she looks forward to an enjoyable experience in a National Park setting. The visitor will expect the campground and other park facilities to be operational (including water for drinking and rinsing off sand). Each year his/her desire is to visit in late-May with his/her family in order to experience the surge flow phenomena in Medano Creek. It is important to them to have enough flow in the creek to make it possible for the children to play in the water and cool off during the heat of the day. The family also enjoys tracking wildlife along the Medano Creek corridor and watching the dark night skies made possible by a lack of development near the park.
- **Local Cattle Rancher** - The Double-Dune Ranch near the Great Sand Dunes depends on a water right which has been handed down within the family. The water right was procured in 1915 on 20 wells within the ranch's 7,500 acres. The rancher will provide information about his/her wells and demonstrate that a lowering in the water table could dry up at least half of the shallower wells, which he/she knows because during drought years some of them stop flowing altogether. He/she will also explain that when the beef market dips, the Double-Dune ranch doesn't make a profit and has difficulty paying all the costs of the ranching operation. A drop in the water table could make it impossible for the cattle ranching operation -as it is currently managed- to continue.
- **Wildlife Biologist** - Colorado's arid lands wildlife biologist, Dr. Kestrel, will speak on behalf of Colorado's wildlife. Dr. Kestrel will demonstrate that surficial wetlands and the unconfined aquifer are intertwined: when the water table lowers, the wetlands are also affected. Populations of migratory birds, elk, deer, and native plants will be shown to depend on wetland areas. If relevant, Dr. Kestrel will also explain how the Rio Grande cutthroat trout depends on consistent streamflow in Medano and Sand Creeks.
- **Potato farmer** - A descendant of Spanish settlers in the San Luis Valley, he/she farms on 10 quarters passed down through the family. In drought years, the expense of pumping water from wells in the unconfined aquifer can cost thousands of dollars during the growing season. In years of normal precipitation, there is enough water from the Rio Grande diverted into irrigation ditches to significantly lower those costs. With the popularity of low-carb diets and other factors driving the prices of potatoes downward and the recent years of drought, he/she is doing everything possible to streamline the operation and make a sustainable income, so that the farm can continue to be passed down within the family.
- **Attorney for Global Hydroscovery Water Miners, Inc.** - Dr. Vaatervinder will be representing Global Hydroscovery Water Miners in your Town Hall discussion. He/she will argue the case that water is not only a national but also an international resource which should be available for the people. He/she will explain that such a resource should be put to use, rather than being "locked up" within aquifers underneath the earth. Global Hydroscovery Water Miners will be represented as an international water mining operation which has been in operation for over 20

years, with a strong public record in protecting the environment, and has provided water to people in desert regions around the world.

- **National Park Service Resource Manager** - The National Park Service (NPS) resource manager will represent the official National Park Service perspective. He/she will explain the NPS mandate to protect areas for "the enjoyment of future generations" as well as leaving them "unimpaired." Requirements to fulfill obligations of Congressional Acts, such as the Organic Act of 1916, and other laws will demonstrate his/her role as steward of the people's resources. He/she will also make it clear that funding for expensive projects is difficult to obtain-all funding for the NPS ultimately is derived from taxpayers and the US Congress passes all budgets, which must be signed by the President.
- **Spokesperson for the City of Las Vegas Water Council** - He/she will argue that the City of Las Vegas, Nevada is a rapidly growing city and must be able to secure water sources for the people. The spokesperson will demonstrate that the city has the financial backing necessary to secure water rights from sources as distant as Southern Colorado.
- **State of Texas Water Resource Attorney** - He/she will clearly explain the Rio Grande compact and defend the State of Texas' right to an equitable portion of water from the Rio Grande.
- **State of New Mexico Water Resource Attorney** - He/she will clearly explain the Rio Grande compact and defend the State of New Mexico's right to an equitable portion of water from the Rio Grande.
- **State of Colorado Water Resource Attorney** - He/she will clearly explain the Rio Grande compact and defend the State of Colorado's right to an equitable portion of water from the Rio Grande.
- **CEO of Green Deserts, Inc.** - The founder and CEO of Green Deserts will describe his/her company and their national plan to provide affordable community housing for people over 60. He/she will explain Green Deserts' goal to bring "quality living to US deserts in an environmentally-friendly way."
- **Board Member of The Dunes Residential Community** - Mr./Ms. Herbert is the current Chairman of the board for The Dunes residential community. This fictitious development near the Great Sand Dunes depends on wells for drinking water. During recent drought years, some of the residents' wells have dried up. Their water rights are defined for home use only and it is unlawful for them to use their wells for lawns or gardens. Some of the residents have lived there for over 20 years.
- **Hydrologist/Geologist** - Growing up hiking and exploring in the mountains, he/she chose the profession of geology because it provided opportunities to study interesting geologic processes, while getting to work outdoors. He/she can provide insight to a variety of groups about where the water in a particular area comes from and what geographic or geologic factors influence the aquifer(s). He/she also may be able to model predictions about how human-caused changes could affect the water table.
- **Dirk Doublehorn** - A descendant of some of the first Anglo pioneers in the area, Mr. Doublehorn takes great pride in running a sustainable cattle operation. His operation also provides economic benefit for the local community, at various times employing ranch hands, farriers, veterinarians, and purchasing large quantities of supplies. The family's five children are beginning to approach college age and there is growing concern about how to finance the upcoming expenses associated with higher education. The emergence of a previously unknown water right on Medano Creek would make it possible to expand the ranching operation and gain enough extra income to take care of college expenses, as well as hire several more ranch hands.