

VIDEO SCRIPT

TITLE: Water And Dust

PREPARED FOR: Dakota Pathways: A History

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A U D I O

1. OPEN MONTAGE
2. (:20) kids at Cultural Center with guide.
3. Falls of the Big Sioux River.
4. Lewis & Clark on Missouri
5. Curtis Photo "A River Camp"
6. Paddlewheeler. SDCHC: "Abner O'Niell Steamboat"
7. Below Oahe Dam, power plant.
T#9 Kyles shot
8. Aftermath of Rapid City flood.
9. Dry, cracked earth. LOC "Great Depression" #00241R
10. Photo Dust clouds. LOC "Great Depression " B1365 various dust storms
11. Withering crops. Dry Corn field
12. Black Hills fire. KNBN-TV footage.

- NAT SOUND UP AND UNDER
- MUSIC UP HRCB5 Cut 12 "Jennies Dream"
- MUSIC UNDER
- NARRATOR:
- Some of South Dakota's most incredible stories start with water.
- Water here has meant exploration.
- Settlement.
- Transportation.
- Power.
- And disaster.
- MUSIC UP AND UNDER HRCB 9 Cut 19 "Oklahoma Heat"
- Just as incredible, though, are stories of drought, when rain stops falling...
- ...and the only clouds are ones of dust.
- When crops die of thirst...
- MUSIC UP AND UNDER HRCB 5 Cut 17 "Hangin Around"
- and forests burn.

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13. Map. Then an aerial shot of Lake Traverse T26 @01:03:30.

South Dakota can never take water for granted. Think of it this way: to our east, Minnesota is the state known as, "The land of ten thousand lakes."

14. Soaring South Dakota prairie lake. Slough with geese flying up. DISSOLVE to Map of rivers in SD

When South Dakota became a state in 1889, it claimed only 257 lakes.

15. Dissolve to: Aerial shots of Big Sioux River. T27 @ 00:17:28

Still, our biggest rivers—the Big Sioux, James, Missouri, Cheyenne, and a few others—always flowed.

MUSIC UP AND UNDER Stroutsos-Winds of Honor Cut 1 "Cheyenne Eyes"

Our first farmers were American Indian people who, more than a thousand years ago, followed these waters, looking for places along the shores for planting corn, beans, squash, and tobacco.

MUSIC UP UP AND UNDER HRCB 5 Cut 17 "Hangin Around" reprise

16. Fur trapper setting trap. "Jay E. Lewis" as Hugh Glass

Later, fur-traders followed rivers, trapping beavers.

17. The Queen Bee Mill site and water over the falls.

Settlers who began building Sioux Falls in the 1870s knew the Big Sioux River would supply power. The Queen Bee Mill opened in 1881 and could produce 1,200 barrels of flour a day—thanks to water that turned turbines...

18. Video of the Queen Bee Mill continued

...which moved steel rollers...

19. Video continues

...that crushed grain.

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20. Old electric building below falls.

Later, at the same spot just below the Falls of the Big Sioux, water power created electricity.

21. Missouri River ice flows.

MUSIC SEGUE to: DWCD0335 Cut 7 "Windswept"

1881 flood photos Vermillion Super
"Vermillion Flood 1881" Yankton (N394 WH
Over) Super "Yankton July 4th 1881"

Dakotans saw lots of water in 1881. That's when heavy snows melted, flooded rivers, and nearly wiped out many river towns.

22. Well Drilling, T46 Water shooting up to sky, Artesian photos #2

The same year, in Yankton, a man from Chicago drilled a new kind of well that made Dakotans believe water would never be scarce. He cut deep into the earth's crust, where natural pressure shot clear water out of the ground like a Yellowstone geyser. It seemed too good to be true—this super-deep Artesian well didn't need a pump to bring water to the surface, as shallow wells did.

23. Pop-Up Fact—Artesian wells were named for the town of Artois, France, where the first one was drilled.

24. Historic shots of East River towns of the 1880s. Include Woonsocket if found.

Immediately every town in Dakota Territory, and many individual farmers, were hoping to dig Artesian wells. One of the world's most powerful was drilled at Woonsocket, where water rocketed 96 feet into the air and proved so hard to handle that folks finally gave up on the well.

25. Map showing Artesian Basin.

Woonsocket sits in the middle of the Artesian Basin, and wells in the area kept spouting like fountains. But in some parts of South Dakota, too much drilling made underground water supplies run short.

26. CU water bubbling out of ground then stopping.

27. Brown prairie.

Then during eleven long drought years—1886 to 1897—South Dakotans learned the truth about rain here: they couldn't rely on it.

28. Bright sun in sky. Corn WS, Corn CU, Family & Soddy SDCHC#1

MUSIC STING: DWCD 299 Cut 1

29. Dying crops.

In the early 1890s, towns and groups of farmers turned to rainmakers...

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30. CU hands lighting a dynamite fuse.

...people who traveled around promising to make the skies open, by shaking things up.

31. Explosion.

SFX of explosions.

32. Stove-pipes pointing skyward.

Rainmakers also set up pipes for sending hydrogen into the sky. Usually they collected payment from farmers or cities only if half an inch of rain fell within a week or so.

33. CU hands of rainmaker accepting (1890s era) bills.

34. Rainfall along the James River.

Did explosions and hydrogen work? Well, in 1893 a Kansas man named Morris took home \$500 when rain fell along the James River near Westport. A few days later, Aberdeen people paid Morris another \$500 after he went to work there, and rain came again.

35. Rainmaker stuffing money in vest pocket.

36. Photo early salesman making pitch to crowd.

But there were many more stories of rainmakers who made nothing—except a lot of noise.

37. Aberdeen in the 1890s.

South Dakotans gave up on rainmakers—even in Aberdeen, where in 1894 people decided they wouldn't pay for rain again.

38. Streams and waterfalls in the Black Hills.

About the same time, South Dakotans with as much imagination as rainmakers went to work on more practical water projects. There's not as much water in the Black Hills as eastern South Dakota, but Hills water has some unusual qualities.

39. Fall River in winter, with steam

Hot Springs is named for clear water that bubbles

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rising in great clouds.

out of the ground at 87 degrees—warm as a hot bath.

MUSIC UP AND UNDER DWCD 0081 Cut 33 "Tit for Tat"

40. Historic shots of Hot Springs in its bath house era. (Mills photos)

In 1892, trains began bringing people from across the nation to Hot Springs, where they soaked in the water, hoping to improve their health.

41. Historic Shots continued

Or just to relax.

NAT SOUND UP AND UNDER Water Sounds of creek.

42. Spearfish trout, the hatchery grounds. CU fish.

In Spearfish, it was clear, cold water—about 45 degrees—that won the town a United States government fish hatchery. It opened in 1899, and trout hatched there ended up in streams and lakes all over the American West.

43. Shots of Spearfish Creek in the canyon illustrating the fast movement. Cut to a shots Power plant in canyon and of the power plant near Spearfish Park.

Spearfish Creek, which flows past the hatchery, may look small compared to the Missouri or Big Sioux rivers. But the water moves with great force, because the stream drops from the heights of the Black Hills down to prairies in just a few short miles. Homestake Gold Mine put that power to work in the early 1900s, building plants along the creek that sent electricity into the mine, and to northern Black Hills towns.

44. Pop-Up Fact: The first Spearfish Creek power plant opened in 1911.

45. Bureau of Reclamation photos of Orman crews.

At the same time, within sight of the Black Hills on the prairie near Belle Fourche...

46. Contemporary shot of Orman Reservoir

Pop-Up Fact: Orman Dam was built by the U. S. Bureau of Reclamation between 1904 and 1912.

...workers were paid a dollar a day to build what then was the biggest dam made of rock and soil. Orman Dam created a big lake for farmers and ranchers, who now had a good water source all summer long.

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47. Aerial shot over Pactola Reservoir

Many more projects like Orman happened over the years. South Dakota's lakes increased from 257 to nearly twelve-hundred in 1950.

48. Pop-Up Fact: A man-made lake behind a dam is called a reservoir.

49. Another Bureau of Reclamation work shot.

But even the best planning and building...

MUSIC UP AND UNDER DWCD 0335 Cut 5 "Arrid"

50. Photo 30s era guy with pack walking cross-country.

...couldn't keep the worst droughts from hurting South Dakota. Lots of settlers left western South Dakota after back-to-back dry years—1910 and 1911.

51. Bleak Dust Bowl shot.

Nobody, though, imagined how far-reaching a drought could be until hardly any rain fell in 1933...

52. Bleaker shot.

...1934...

53. Bleakest shot.

...or 1935.

54. Dust clouds of the 1930s.

Crops failed, grasses died, and soil blew away in the wind.

55. Dust Bowl at its worst.

Dark clouds of dust filled the skies. Black blizzards buried roads and fences.

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Over aerial shot butte country.

56. Pop-Up Fact: People called this dusty time the "Dirty Thirties."

57. Aerial shot of Dust Bowl era hills along Highway 85, just south of Buffalo.

The hills near Buffalo may look like they've stood a million years. In fact, they're great piles of dirt that blew here in the 1930s.

58. Contemporary shot of parched Badlands country.

The Dirty Thirties were so bleak in southwestern South Dakota that the United States government began buying up acres from ranchers, after deciding no one could make a living there.

59. Aerial of Badlands National Park.

About 244,000 of those acres became Badlands National Park.

60. Pop-Up Fact: State's population
1930: 692,849
1940: 642,961

Drought and dust made for a disaster that drove people off the land. Between 1930 and 1940, South Dakota's population dropped by fifty thousand people.

61. Contemporary shots of Rapid Creek—in the Hill, Canyon Lake dam, and running through town. Kids wading or tubing.

But it was water that created a different kind of disaster—one that cost South Dakotans their lives. Rapid Creek looks harmless as it churns its way out of the Black Hills...

62. Rapid Creek shots

and through Rapid City. In most spots you can wade across it.

63. Lightening storm over the Black Hills, nightfall.

But on the night of June 9, 1972, Rapid Creek grew into a monster. In six hours more rain fell than the Rapid City area sometimes sees in a year.

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64. Raging, dark waters.

Rapid Creek normally moves with a lot of force, because like other Black Hills streams, it flows down from high hills. Now it became a wall of water moving with terrible power.

65. Aftermath of the flood.

The flood waters destroyed more than thirteen hundred homes and five thousand cars, tore up 80 city blocks of pavement, injured three thousand people—and killed 238.

66. Rapid City flood aftermath..

It was the worst natural disaster in state history.

67. Green farm after rainfall.

There are always lessons to be learned from disasters. After the Dirty Thirties, farmers planted shelter belts—rows of trees that block winds from carrying soil away in dry years.

68. Green shelterbelt of trees.

69. Rapid City park system.

After the 1972 flood, Rapid City created parks along its creek, rather than rebuild homes close to the water.

70. Pretty shots of South Dakota rainfall and snowfall.

Musical segue.

71. Jet ski's in action.

Narrator:

South Dakotans have played with water...

72. Prairie church in late sunlight.

prayed for water...

73. Irrigation at work.

built with water...

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74. Sandbagging.

and fought water.

75. State capitol building, exterior

They've also fought about water, in courts, and at the state capitol in Pierre, where South Dakota laws are made.

76. SD Senate in action

77. Aerial view of a river flowing through farm country.

Who has the right to take water from a river like this, and how much? How much consideration does a farmer upstream owe a farmer downstream?

78. Aerial shot of the James in farmland.

Are water needs of farmers more important than town people's?

79. Falls of the Big Sioux at Sioux Falls.

80. Trout fisherman just below the 1917 Spearfish Canyon plant.

Are a trout fisherman's needs as important as a power plant's needs?

81. Headline about the ETSI pipeline controversy.

Should someone be able to drill deep below South Dakota's surface and then sell the water to people in other states?

82. Shots of the Missouri River reservoirs outflows.

What should the state do when the United States government, which controls how much water flows from four Missouri River reservoirs in South Dakota, decides more water is needed downriver for farmers...

83. Barge traffic lower Missouri.

..and barge traffic in other states? Are those water users more important than South Dakota boaters?

84. Boaters on Oahe.

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85. Legislature in session.

There are never easy answers to these questions. Most South Dakota lawmakers have had to think about water rights.

86. Spectacular lightning flashes against horizon.

One thing is obvious, though.

87. Early 1900s town photo dissolving into a shot of modern Sioux Falls.

No matter how South Dakota changes in other ways...

88. Quick shots of dust and water, and then a 1997 snowdrift.

...it will always know times of drought and flood. In 1997, for example, gigantic snow drifts melted...

89. 1997 flood.

...and put eastern farm lands under water.

90. Brown ranch lands. Cattle round-up.

Just five years later, no rain fell in the west, no grass grew, and many ranchers sold their cattle because they had nothing to feed them.

91. Forest fire.

Dry Black Hills forests burned during the 2002 drought, too.

92. Green cornfields in rainfall.

Of course, there were plenty of years when rainfall was just right.

93. Swirling waters. Dissolve to:

94. Swirling dust devil.

But those years tend to be forgotten, when South Dakotans recall their amazing adventures with water and dust.

95. Close.

Closing music.