

DISTRICT COURT
SAN JUAN COUNTY NM
FILED

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STATE OF NEW MEXICO
COUNTY OF SAN JUAN
ELEVENTH JUDICIAL DISTRICT COURT

STATE OF NEW MEXICO, *ex rel.*
THE STATE ENGINEER,

Plaintiff,

AB-07-1

Claims of Navajo Nation

vs.

No. CV 75-184

Honorable James J. Wechsler

Presiding Judge

THE UNITED STATES OF AMERICA, *et al.*,

Defendants.

DESCRIPTIVE SUMMARY: Community Ditch Defendants request the court to take judicial notice of Water Units of Measure.

NUMBER OF PAGES: 2 + 1 page attachment

DATE OF FILING: June 14, 2013

**REQUEST FOR JUDICIAL NOTICE
OF WEIGHTS AND MEASURES OF WATER**

Pursuant to Rule 11-201, NMRA, the Community Ditch Defendants request the court to take judicial notice of the attached "Water Units of Measure."

The court and the parties need these measures and conversion factors for this case. For example, *Winters v. United States*, 207 U.S. 564 (1908), refers to miners inches of water. In Montana, a miners inch is equal to 1/40 of a cubic foot per second, whereas in New Mexico a miners inch is 1/50 of a cfs.

D

The court and the parties also need these conversion factors in order to calculate water supplies and shortages in the San Juan River basin, such as converting cfs to acre-feet and vice versa.

The court can take judicial notice of weights and measures under Rule 11-201, and see also Rule 1-044 ("the laws of nature").

Respectfully submitted,

VICTOR R. MARSHALL & ASSOCIATES, P.C.

By /s/ Victor R. Marshall

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CERTIFICATE OF SERVICE

I hereby certify that on June 14, 2013, a true and correct copy of the foregoing was served on the parties and claimants by attaching a copy of said document to an email sent to the following list server: wrnavajointerse@nmcourts.gov and to the filing list referred to in the Notice of Amended Service List filed February 25, 2013.

/s/ Victor R. Marshall

Victor R. Marshall, Esq.

WATER UNITS OF MEASUREMENT

(revised to use 325,851 gallons per acre-foot per Mr. Utton's objection)

- A. 1 cubic foot of water = 7.48 U.S. fluid gallon
= 62.3 pounds (varies slightly depending on pressure, temperature, etc.)
- B. 1 acre = 43,560 square feet
- C. 1 acre-foot of water = 43,560 cubic feet of water (enough water to cover 1 acre to a depth of 1 foot)
= 325,851 gallons [revised from 325,829]
= 2,713,788 pounds
- D. 1 cubic foot per second = 60 cubic feet per minute = 3,600 cubic feet per hour
= 86,400 cubic feet per day = 1.983 acre-feet per day
- E. 1 year = 365.25 days = 31,557,600 seconds (A common "year" unit in scientific practice is a year of exactly 365.25 days, based on a day of exactly 86,400 seconds.)
- F. 1 cfs per year = 724.46 acre-feet per year
= 31,557,600 cubic feet per year
- G. Miner's inch – unit of flow per unit of time
- 1/50 cubic foot per second (566 milliliters per second) in southern California, Idaho, Kansas, Nebraska, New Mexico, North Dakota, South Dakota, Utah, Washington.
- 1/40 cubic foot per second (708 milliliters per second) in Arizona, northern California, Montana, Nevada, Oregon. [This is the unit of measurement used in *Winters*.]
- 1/38 cubic foot per second (745 milliliters per second) in Colorado.

The Court can take judicial notice of these weights and measures, pursuant to Rule 11-201, NMRA.

June 7, 2013