

IN THE OFFICE OF THE STATE ENGINEER
OF THE STATE OF NEVADA

IN THE MATTER OF APPLICATIONS 62595)
AND 62596 FILED TO CHANGE THE POINTS)
OF DIVERSION, PLACES AND MANNER OF USE)
OF UNDERGROUND WATERS HERETOFORE)
APPROPRIATED WITHIN THE LAS VEGAS)
ARTESIAN GROUNDWATER BASIN (212),)
CLARK COUNTY, NEVADA.)

RULING

4629

GENERAL

I.

Application 62595 was filed on November 19, 1996, by Nevada Coin Mart, Inc., to change the point of diversion, place and manner of use of 0.0825 cubic feet per second (cfs), not to exceed 13.776 acre-feet annually (afa), of underground water heretofore appropriated within the Las Vegas Artesian Groundwater Basin under Permit 58552. The proposed manner of use is for quasi-municipal purposes within the SW¼ NE¼ of Section 28, T.19S., R.57E., M.D.B. & M.¹ The proposed point of diversion is described as being located within the NE¼ SW¼ of said Section 28.¹

Permit 58552 was granted on December 28, 1993, and changed the point of diversion and place of use of 0.0825 cfs, not to exceed 13.776 afa, a portion of the waters previously appropriated under Permit 43456, Certificate 12400. Permit 58552 was granted for irrigation and domestic purposes within the NE¼ SW¼ of Section 28, T.21S., R.63E., M.D.B. & M.² The point of diversion under Permit 58552 is described as being located within the NE¼ SW¼ of said Section 28.

II.

Application 62596 was filed on November 19, 1996, by Nevada Coin Mart, Inc., to change the point of diversion, place and manner

¹ File No. 62595, official records in the office of the State Engineer.

² File Nos. 58552 and 43456, official records in the office of the State Engineer.

of use of 0.0003 cfs, not to exceed 0.217 afa, of underground water heretofore appropriated within the Las Vegas Artesian Groundwater Basin under Permit 59730. The proposed manner of use, place of use, and point of diversion are the same as under Application 62595.³

Permit 59730 was granted on July 18, 1994, and changed the point of diversion, manner and place of use of 0.0003 cfs, not to exceed 0.217 afa, of the waters previously appropriated under Permit 42487, Certificate 12302. Permit 59730 was granted for irrigation and domestic purposes within the NE¼ SW¼ of Section 28, T.21S., R.63E., M.D.B. & M. The point of diversion under Permit 59370 is the same as under Permit 58552.⁴

III.

The State Engineer initially described and designated a portion of the Las Vegas Artesian Groundwater Basin on January 10, 1941, under the provisions of NRS § 534.030, as a basin in need of additional administration.⁵ The State Engineer subsequently extended the boundaries of the designated area of the Las Vegas Artesian Groundwater Basin on February 29, 1944,⁶ November 22, 1946,⁷ April 18, 1961,⁸ May 25, 1964,⁹ and December 27, 1983.¹⁰

³ File No. 62596, official records in the office of the State Engineer.

⁴ File Nos. 59730 and 42487, official records in the office of the State Engineer.

⁵ State Engineer's Order No. 175, dated January 10, 1941, official records in the office of the State Engineer.

⁶ State Engineer's Order No. 182, dated February 29, 1944, official records in the office of the State Engineer.

⁷ State Engineer's Order No. 189, dated November 22, 1946, official records in the office of the State Engineer.

⁸ State Engineer's Order No. 249, dated April 18, 1961, official records in the office of the State Engineer.

IV.

The State Engineer has recognized four areas in the Las Vegas Artesian Groundwater Basin as having localized problems caused by groundwater pumpage. One of those areas encompasses Kyle and Lee Canyons in the Spring Mountains on the west side of the Las Vegas Basin.¹¹ Kyle Canyon is the area in which Applications 62595 and 62596 seek to use water if permits are approved.

V.

The U.S. Department of Interior, Geological Survey, has prepared Open-File Report 84-438, Ground-Water Resources of Kyle and Lee Canyons, Spring Mountains, Clark County, Nevada, which evaluates the hydrology of the groundwater systems in Kyle and Lee Canyons in terms of the occurrence, movement, and quality of the water.¹² The Nevada Division of Water Resources has cooperated with the U.S. Geological Survey and other entities in studying land subsidence, water pumpage and groundwater level changes in the Las Vegas Artesian Groundwater Basin and has published results of the studies in various reports.¹³

⁹ State Engineer's Order No. 275, dated May 25, 1964, official records in the office of the State Engineer.

¹⁰ State Engineer's Order No. 833, dated December 27, 1983, official records in the office of the State Engineer.

¹¹ State Engineer's correspondence to Clark County Department of Comprehensive Planning, dated February 4, 1993, and July 28, 1993, official records in the office of the State Engineer.

¹² Plume, R.W., Ground-Water Resources of Kyle and Lee Canyons, Spring Mountains, Clark County, Nevada, U.S. Geological Survey Open File Report 84-438 (1985).

¹³ Robinson, T.W., Maxey, G.B., Fredericks, J.C., and Jameson, C.H., Water Levels and Artesian Pressure in Wells in Las Vegas Valley and in Other Valleys in Nevada 1913-1945, Water Resources Bulletin No. 3, Geological Survey, U.S. Department of Interior, and the office of the State Engineer, State of Nevada (1947); Maxey, G.B., and Jameson, C.H., Geology and Water Resources of Las Vegas,

FINDINGS OF FACT

I.

The date of priority of all appropriations of water from an underground source is the date when the application is made in proper form and filed in the office of the State Engineer pursuant to the provisions of NRS § Chapter 533.¹⁴ An application to change an existing water right has a priority date equal to the date when the first application for appropriation is filed. If a permit is

Pahrump, and Indian Springs Valleys, Clark and Nye Counties, Nevada, Water Resources Bulletin No. 5, Geological Survey, U.S. Department of Interior, and the office of the State Engineer, State of Nevada (1948); Malmberg, G.T., A Summary of the Hydrology of the Las Vegas Ground-Water Basin, Nevada, with Special Reference to the Available Supply, Water Resources Bulletin No. 18, Geological Survey, U.S. Department of Interior, and the Department of Conservation and Natural Resources, State of Nevada (1961); Domenico, P.A., Stephenson, D.A., and Maxey, G.B., Ground Water in Las Vegas Valley, Water Resources Bulletin No. 29, Desert Research Institute, University of Nevada, and the Department of Conservation and Natural Resources, State of Nevada (1964); Harrill, J.R., Pumping and Ground-Water Storage Depletion in Las Vegas Valley, Nevada, 1955-74, Water Resources Bulletin No. 44, Geological Survey, U.S. Department of Interior, and the Division of Water Resources, State of Nevada (1976); Burbey, T.J., Pumpage and Water-Level Change In the Principal Aquifer of Las Vegas Valley, Nevada, 1980-90, Water-Resources Information Series Report No. 34, Geological Survey, U.S. Department of Interior, and the Division of Water Resources, State of Nevada (1995); Wood, D.B., Water-Level Changes Associated with Ground-Water Withdrawals and Surface-Water Imports, Las Vegas Valley, Nevada, 1983-85, Water-Resources Information Series Report No. 33, Geological Survey, U.S. Department of Interior, and the Division of Water Resources, State of Nevada (1991); Wood, D.B., Water-Level Changes Associated with Ground-Water Withdrawals and Surface-Water Imports, Las Vegas Valley, Nevada, 1981-83, Water-Resources Information Series Report No. 32, Geological Survey, U.S. Department of Interior, and the Division of Water Resources, State of Nevada (1991); Wood, D.B., Water-Level Changes Associated with Ground-Water Development in Las Vegas Valley, Nevada, 1979-81, Water-Resources Information Series Report No. 31, Geological Survey, U.S. Department of Interior, and the Division of Water Resources, State of Nevada (1988).

¹⁴ NRS § 534.080(3).

cancelled under the law the State Engineer is required to vacate the effective date of appropriation under the permit and change the priority date to the date of filing a written petition for hearing to review the cancellation with the State Engineer.¹⁵

The State Engineer finds that Applications 62595 and 62596 have priority dates of August 20, 1987, the same priority date as Permits 58552 and 59730.^{1,2,3,4} Permits 58552 and 59730 were changes of Permit 43456, Certificate 12400, and Permit 42487, Certificate 12302, respectively.^{2,4} Permits 43456 and 42487 were cancelled June 26, 1987, pursuant to NRS § 533.395 for failure to comply with the terms of the permits requiring the filing of proofs. On December 10, 1987, the cancellations were rescinded and the permits reinstated with priority dates of August 20, 1987.^{2,4}

The first permitted appropriation of groundwater in the Las Vegas Artesian Basin has a priority date of December 28, 1911.¹⁶ The State Engineer finds currently there are 681 permits and certificates with priority dates before August 20, 1987, and 141 permits and certificates with priority dates after August 20, 1987.¹⁷ The State Engineer finds that 83 percent of the water rights in the Basin have priority dates earlier than Applications 62595 and 62596.

II.

The points of diversion and places of use under Permits 58552 and 59730 are located within the vicinity of the Las Vegas Wash near the eastern boundary of the Las Vegas Artesian Groundwater Basin. The Las Vegas Wash is the drainage outlet to the Colorado

¹⁵ NRS § 533.395(3).

¹⁶ File No. 2303, official records in the office of the State Engineer.

¹⁷ Hydrographic Basin Abstract, Basin 13-212, April 6, 1998, official records in the office of the State Engineer.

River for most of the Las Vegas Valley.¹⁸ Ground water in this area, augmented by secondary recharge, if not diverted and used beneficially will be discharged from the basin as seepage to the Las Vegas Wash or as evapotranspiration.¹⁹

The points of diversion and places of use under Applications 62595 and 62596 are within the lower part Kyle Canyon in the Spring Mountain Range on the western side of the Las Vegas Artesian Groundwater Basin. Most of the natural recharge to the Basin is from precipitation which falls in the Spring Mountain Range.²⁰ These applications seek to use ground water from a source of recharge to the Las Vegas Artesian Groundwater Basin. This ground water is already appropriated in the basin by water right holders with earlier priority dates,²¹ and the State Engineer finds that approval of Applications 62595 and 62596 would conflict with many water rights existing in the Las Vegas Artesian Groundwater Basin.

¹⁸ Maxey, G.B., and Jameson, C.H., Geology and Water Resources of Las Vegas, Pahrump and Indian Spring Valleys, Clark and Nye Counties, Nevada, Water Resources Bulletin No. 5, Geological Survey, U.S. Department of the Interior, and the office of the State Engineer, State of Nevada, p. 26 (1948).

¹⁹ Burbey, T.J., Pumpage and Water-Level Change In the Principal Aquifer of Las Vegas Valley, Nevada, 1980-90, Water Resources Information Series Report 34, Geological Survey, U.S. Department of the Interior, and the Division of Water Resources, State of Nevada, p. 5 (1995).

²⁰ Malmberg, G.T., A Summary of the Hydrology of the Las Vegas Ground-Water Basin, Nevada, with Special References to the Available Supply, Water Resources Bulletin No. 18, Geological Survey, U.S. Department of Interior, and the Department of Conservation and Natural Resources, State of Nevada, p. 13 (1961).

²¹ Hydrographic Basin Abstract of the Las Vegas Artesian Basin, Basin 13-212, and water rights files, official records in the office of the State Engineer.

III.

The State Engineer has recognized the Kyle/Lee Canyons Area as having problems caused by groundwater pumpage.¹¹ This area has a complex groundwater system of alluvium and carbonates which exhibits seasonal changes in groundwater levels.²² Snowmelt is the primary source of recharge²³ to the groundwater reservoir causing water levels to rise during spring and early summer, and then decline to a base level by late autumn or early winter.²⁴ Water-level fluctuations result from interchange of ground water between alluvium and carbonate rocks caused by changes in pressure head in carbonate rocks.²⁵ Water-level measurements taken in the Paul Kingston well located within the SE¼ NE¼ Section 28, T.19S., R.57E., M.D.B. & M. show a water level fluctuation of over 134 feet during 1980.²⁶ Water levels recover to depths 350 to 400 feet below land surface during winter and early spring of each year depending upon precipitation.^{26,27} The State Engineer finds that

²² Plume, R.W., Ground-Water Resources of Kyle and Lee Canyons, Spring Mountains, Clark County, Nevada, U.S. Geological Survey Open-File Report 84-438, p. 14 (1985).

²³ Id., p. 2.

²⁴ Id., p. 15.

²⁵ Id., pp. 1-2.

²⁶ Id., pp. 16-17.

²⁷ Burbey, T.J., Pumpage and Water-Level Change In the Principal Aquifer of Las Vegas Valley, Nevada, 1980-90, Water-Resources Information Series Report 34, Geological Survey, U.S. Department of the Interior, and the Division of Water Resources, State of Nevada, p. 37 (1995); Wood, D.B., Water-Level Changes Associated with Ground-Water Withdrawals and Surface-Water Imports, Las Vegas Valley, Nevada, 1983-85, Water-Resources Information Series Report 33, Geological Survey, U.S. Department of the Interior, and the Division of Water Resources, State of Nevada, p. 15 (1991); Wood, D.B., Water-Level Changes Associated with Ground-Water Withdrawals and Surface-Water Imports, Las Vegas Valley,

the approval of Applications 62595 and 62596 to move water rights from the valley floor to Kyle Canyon would only further exacerbate water-level fluctuations and would interfere with existing water rights and threaten to prove detrimental to the public interest.

IV.

Data collection for the water quality portions in U.S. Geological Survey Open-File Report No. 84-438 found signs that septic-tank effluent has affected groundwater quality in Kyle Canyon. The Report estimates that 68 acre-feet of water was used in the canyon in 1977 and 61 acre-feet (90%) of that water became septic-tank effluent.²⁸ Pumpage from water rights granted in Kyle Canyon for 1994 through 1996 averaged around 200 acre-feet.²⁹ This pumpage does not include domestic well use, but may indicate a three-fold increase in septic-tank effluent. The State Engineer has granted 756 acre-feet of water rights in Kyle Canyon,³⁰ and if these water rights were fully used, septic-tank effluent would greatly impair the quality of the ground water and threaten public health not only in Kyle Canyon, but in the Las Vegas Artesian Groundwater Basin. The State Engineer finds that approval of

Nevada, 1981-83, Water-Resources Information Series Report 32, Geological Survey, U.S. Department of the Interior, and the Division of Water Resources, State of Nevada, p. 15 (1991); Wood, D.B., Water-Level Changes Associated with Ground-Water Development in Las Vegas Valley, Nevada, 1979-81, Water-Resources Information Series Report 31, Geological Survey, U.S. Department of the Interior, and the Division of Water Resources, State of Nevada, p. 17 (1988).

²⁸ Plume, R.W., Ground-Water Resources of Kyle and Lee Canyons, Spring Mountains, Clark County, Nevada, U.S. Geological Survey Open-File Report 84-438, pp. 3, 5 (1995).

²⁹ Coache, R., Las Vegas Valley Water Usage Report, Nevada Division of Water Resources (1994-96), official records in the office of the State Engineer.

³⁰ Hydrographic Basin Abstract of the Kyle Canyon portion of Basin 13-212, official records in the office of the State Engineer.

Applications 62595 and 62596 would threaten to prove detrimental to the public interest.

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.³¹

II.

The State Engineer is prohibited by law from granting a permit for a change application where:³²

1. the proposed use conflicts with existing rights; or
2. the proposed use threatens to prove detrimental to the public interest.

III.

Applications 62595 and 62596 propose to change the points of diversion and the places of use from the Las Vegas Wash near the drainage outlet of the basin to Kyle Canyon to a recharge area of the basin. Applications 62595 and 62596 have priority dates of August 20, 1987, whereas most of the non-revocable water rights in the basin have priorities earlier than March 24, 1955. The State Engineer concludes that to approve permits for Applications 62595 and 62596 would conflict with existing rights by the moving of water rights with later priority dates into an area which is a source of recharge for the basin and for earlier priority water rights.

IV.

The State Engineer concludes that to approve permits for Applications 62595 and 62596 to change the points of diversion to an area which has a complex groundwater system and experiences large annual water level fluctuations would conflict with existing rights and threaten to prove detrimental to the public interest.

³¹ NRS Chapters 533 and 534.

³² NRS § 533.370(3).

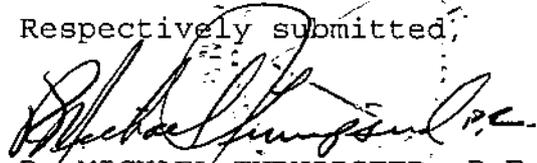
V.

The State Engineer concludes that Kyle Canyon is an area where the use of ground water results in contamination of ground water from septic-tank effluent and threatens public health not only in the canyon, but in the Las Vegas Artesian Groundwater Basin. The State Engineer concludes that to increase water use, and therefore septic-tank effluent, by approving permits for Applications 62595 and 62596 would threaten to prove detrimental to the public interest.

RULING

Applications 62595 and 62596 are hereby denied on the grounds that the granting of permits would conflict with existing rights and threaten to prove detrimental to the public interest.

Respectively submitted;


R. MICHAEL TURNIPSEED, P.E.
State Engineer

RMT/CAB/cl

Dated this 4th day of
May, 1998.