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

IN THE MATTER OF APPLICATION NUMBER 80123
FILED BY Spring Creek Utilities Company
ON August 31, 20 10, TO APPROPRIATE THE
WATERS OF permit #45923 at NE1/4 NE1/4 Sec.36, T33N, R56E

PROTEST

FILED
OCT 22 2010
STATE ENGINEER'S OFFICE

Comes now Ryan S. Shane and Tracy L. Shane
Printed or typed name of protestant

whose post office address is PO Box 8382, Spring Creek, NV 89815
Street No. or PO Box, City, State and ZIP Code

whose occupation is Natural Resource Manager and Professor (respectively) and protests the granting

of Application Number 80123, filed on August 31, 20 10

by Spring Creek Utilities Company to appropriate the

waters of Underground Basin - 048 - Dixie Creek/Tenmile Creek area situated in Elko
Underground or name of stream, lake, spring or other source

County, State of Nevada, for the following reasons and on the following grounds, to wit:

As noted at NRS 533.024, "the legislature declares that it is the policy of this state to recognize the importance of domestic wells as appurtenances to private homes, to create a protective interest in such wells and to protect their supply of water from unreasonable adverse effects which are caused by municipal, quasi-municipal or industrial uses and which cannot reasonably be mitigated." The amount of water proposed for municipal use (2.0 cfs/471.81mga) to provide additional water to the Spring Creek Association residents could potentially have an adverse affect on our existing well (log#49431). Consequently, the proposed point of diversion will be up-gradient of and in the same aquifer as our domestic well. We believe the Spring Creek Utilities Company has other well location options that would be less likely to adversely impact groundwater intersected by our well. The adverse impacts, if realized, could require us to lower our pumps, deepen or re-drill our wells, all of which would cost significant amounts of money and reduce property values. A more detailed account of considerations and requested mitigation measures are attached.

THEREFORE the Protestant requests that the application be Denied OR Issued subject to mitigation recommendations attached
Denied, issued subject to prior rights, etc., as the case may be

and that an order be entered for such relief as the State Engineer deems just and proper.

Signed [signature]
Agent or protestant

Tracy L. Shane
Printed or typed name, if agent

Address 1020 Tobiano Rd OR PO Box 8382 (mailing)
Street No. or PO Box

Spring Creek, NV 89815
City, State and ZIP Code

775-738-3466
Phone Number

Subscribed and sworn to before me this 20 day of October, 20 10

JANIE MOORE
Notary Public, State of Nevada
Appointment No. 93-2875-6
My Appt. Expires August 25, 2011

[signature]
Notary Public

State of Nevada
County of Elko

+ $25 FILING FEE MUST ACCOMPANY PROTEST. PROTEST MUST BE FILED IN DUPLICATE.

ALL COPIES MUST CONTAIN ORIGINAL SIGNATURE.

Nevada Division of Water Resources

Well Driller's Log - General Report

3 October 2010

Basin	County	Twn	Rng	Sec	Quarters	Current Owner	Date Complete	Log No.	Drillers lic. no.	Total Depth	Water Lvl	Casing Dia.	Assessor's Parcel no.	Work type	Prop use	App/Permit
048	EL	N33	E56	23	SW SW	RANGER, SHEILA	08-24-95	49431	1584	150	51.00	6.00	79-002-12-7	N	H	
048	EL	N33	E56	23	SE NW	CANDELARIA, RUBEN	10-27-80	22096	115	150	39.00	8.00		N	H	
048	EL	N33	E56	23	NW SE	SILVA, JOHN	06-21-95	49194	1689	100	30.00	6.62	79-001-04	N	H	
048	EL	N33	E56	23	NE SW	WILSON, MICHAEL	06-16-97	67623	1438	160	63.00	6.00	79-001-11-1	N	H	
048	EL	N33	E56	23	SW SE	OLIVER, JEFF	11-08-95	49874	1584	112	30.00	6.00	79-002-07-7	N	H	
048	EL	N33	E56	23	NE SE	PINION HOMES	11-02-95	49875	1998	120	30.00	6.62	79-002-03	N	H	
048	EL	N33	E56	23	SW SE	PINION HOMES	11-01-95	49876	1998	120	23.00	6.62	79-002-06	N	H	
048	EL	N33	E56	23	SW SE	HAMILTON, JOHN	09-04-95	49877	1584	110	47.00	6.00	79-002-79-3	N	H	
048	EL	N33	E56	23	SW SE	MORALES, JOSE	09-02-95	49878	1584	110	48.00	6.00	79-001-05-3	N	H	
048	EL	N33	E56	23	NW SW	CAIN, RONALD	08-30-95	49879	1584	100	47.00	6.00	79-003-03-4	N	H	
048	EL	N33	E56	23	SE SW	BERRY, SHARON E	11-14-95	49881	1584	126	32.00	6.00	79-002-11-9	N	H	
048	EL	N33	E56	23	NE SW	LAKE, WALT	07-27-95	48564	1654	150	8.00	6.62	79-001-07	N	H	
048	EL	N33	E56	23	SW SE	DAVIS, SONNIE	09-09-97	69323	1584	120	40.00	6.62	79-002-008	N	H	
048	EL	N33	E56	23	NW SE	MCKINNEY, SCOTT	07-05-00	80444	1689	100	30.00	6.63	79-001-003	N	H	
048	EL	N33	E56	23	NW SE	CLEMENTS, DAVID	12-01-82	24269	1166	90	16.00	0.00		N	H	
048	EL	N33	E56	23	NW SE	COLE, DONALD R	10-20-82	24282	1166	114	20.00	6.63		N	H	
048	EL	N33	E56	23	SW SW	PAYN, JOHN	03-27-96	64656	1654	140	81.00	6.62	79-003-01	N	H	
048	EL	N33	E56	23	NW NE	STERLING, H ROSS	08-03-82	24031	632	177	12.00	6.63		N	H	
048	EL	N33	E56	23	NE SE	SCOTT, JIM	06-21-95	48214	1120	100	30.00	6.62	79-002-02	N	H	
048	EL	N33	E56	23	NW SW	KIZZIAR, JERRY	04-11-06	99485	1166	140	37.00	6.63	079-001-013	N	H	

LETTER OF PROTEST/CONCERN TO STATE ENGINEER NEVADA DIVISION OF WATER RESOURCES

We, the undersigned, owning property described as
_____, and with mailing address of
_____
_____, respectfully request review of Application Number 80123, filed by Spring Creek Utilities Company on August 31, 2010, to appropriate the waters of NE1/4 Section 36, T.33N, R.56E.,M.D.M. from which the NE corner of said section bears N54'44'E., 171.47 ft. distant, situated in the County of Elko, State of Nevada. We first received notification of this application on or about September 8, 2010. Last date of publication is scheduled for September 30, 2010.

We own property in the area commonly referred to as Ruby Mountain Estates (subdivision). The subdivision is divided into 31 parcels, consisting of approximately 10 acres each, which, by covenant, cannot be further subdivided. The subdivision, located in the south one-half of section 23, Township 33 North, Range 56 East, MDB&M, is bordered on the north and east by property within the Spring Creek Association (Association); properties within the Association are serviced by Spring Creek Utilities Company. Ruby Mountain Estates has been in existence since the early 1970's and each parcel owner has a domestic well which provides the residents with all of their current household and property water. We wish to express our concern that the amount of water proposed for municipal use (2.0 cfs/471.81mga) to provide additional water to the Spring Creek Association residents will have an adverse affect on our existing wells. We believe the Spring Creek Utilities Company has other well location options within the 23.4 square mile Spring Creek Housing area which would be less likely to adversely impact groundwater intersected by our wells. These adverse impacts could require us to lower our pumps, deepen or re-drill our wells.

The hydrologic reasons for our concerns, and our proposed mitigation measures should the point of diversion change be approved, are attached.

We, the concerned Protestants signed below, respectfully request the Office of the State Engineer of the State of Nevada Division of Water Resources to deny the issuance of the application to change the point of diversion. As noted at NRS 533.024, "the legislature declares that it is the policy of this state to recognize the importance of domestic wells as appurtenances to private homes, to create a protective interest in such wells and to protect their supply of water from unreasonable adverse effects which are caused by municipal, quasi-municipal or industrial uses and which cannot reasonably be mitigated."

Thank you for your consideration and assistance.

Respectfully submitted this _____ day of October 2010.

X _____

_____

X _____

_____

Cc: Spring Creek Utilities Company/Chilton Engineering

Hydrologic background and review

The proposed well, in the NE ¼ NE ¼ section 36 T33N R56E, is within one quarter mile of the main stem of Butterfield Creek. The wells at Ruby Mountain Estates (south ½ section 23 T33N R56E) are also generally within one quarter mile of the same stem of Butterfield Creek. The proposed well will be within 9,000 feet of the nearest domestic well in Ruby Mountain Estates.

If we assume that the shallow groundwater gradient more or less mimics the surface drainage, the Ruby Mountain Estates wells are down-gradient of the proposed well. This well, if constructed, will have a permitted duty of 2 cfs, or 900 gpm.

Since 2000, Butterfield Creek has only flowed through Ruby Mountain Estates in 2005 and 2006 (89 days in 2005, and 138 days in 2006). Historical precipitation data are not available for the immediate vicinity of Ruby Mountain Estates, and an attempt to find data that would accurately reflect the precipitation received within the subdivision proved fruitless. Anecdotal evidence suggests that Butterfield Creek flowed through Ruby Mountain Estates annually between April and September through 1999. The observed lack of surface flow in Butterfield Creek in the subdivision through all but two years of the period 2000 – 2010 suggests that water levels in the shallow aquifer are in a general state of decline. It is highly likely that the same condition exists in the domestic wells that are owned by the property owners in Ruby Mountain Estates.

An existing well owned by Spring Creek Utilities Company is located down-gradient of the Ruby Mountain Estates wells, and is within the Butterfield Creek drainage. This well is in the NE ¼ NE ¼ section 22 T33N R56E, and is within one half mile of the nearest domestic well in Ruby Mountain Estates. The permitted duty on this well is 4 cfs, or 1795 gpm. We have not been able to locate any pumping records for this well, drilled in 1972, which has a total cased depth of 500 feet, and is screened from 160 to 500 feet. When the well was drilled and tested, it produced 470 gpm with 128 feet of drawdown from an original static water level of 38 feet below grade (for a pumping water level of 166' below grade).

Current groundwater monitoring points in the vicinity of the proposed well and Ruby Mountain Estates are located as follows:

1. Up-gradient, in Stoffer Creek drainage, NW ¼ NW ¼ section 30 T33N R57E.
2. Down-gradient, in the drainage of a tributary to Tenmile Creek, either SE ¼ SE ¼ section 14 T33N R56E or SW ¼ SW ¼ section 13 T33N R56E (map from Spring Creek Utilities Company suggests the monitor point is on the section line).
3. An additional groundwater monitor point is also in the drainage of a tributary to Tenmile Creek in SW ¼ SW ¼ section 13 T33N R56E.

As residents of Ruby Mountain Estates, we have a profound interest in the effects the proposed well will have on our domestic wells, which have total depths ranging from as little as 90 feet to 177 feet (averaging 124 feet). Static water levels, as indicated on Nevada Well Driller's Logs, vary from 8 feet below grade to 81 feet (averaging 36 feet). The oldest well in the subdivision was drilled in 1980, and the most recent in 2006; the bulk of the wells were drilled in the mid-1990s.

The lack of groundwater monitoring between the location of the proposed well and our wells is troublesome to us. Likewise, the lack of groundwater monitoring between the existing down-gradient well and ours is a concern, especially given that both the existing well and the proposed well are located within the main Butterfield Creek drainage, as are the domestic wells in Ruby Mountain Estates.

<u>Proposed mitigation measures in the event that Application 80123 is approved by the State Engineer</u>

In light of the foregoing, as residents of Ruby Mountain Estates, we have good reasons to be concerned that if the point of diversion change requested by Spring Creek Utilities Company under application 80123 is approved, our domestic wells will be adversely impacted.

In the event that application 80123 is approved by the State Engineer, in the interest of mitigating our concerns, we propose that Spring Creek Utilities Company agree to the following:

1. Install multi-point piezometers in the SW ¼ of section 25, NE ¼ of section 26, and NW ¼ of section 23 T33N R56E. These locations will provide reasonable data to determine the down-gradient drawdown associated with pumping the proposed well, as well as up-gradient impacts from the existing well. We believe that the piezometers should test individual water-bearing zones, and suggest the following:
    a. 50 feet below grade
    b. 100 feet below grade
    c. 200 feet below grade
    d. 500 feet below grade
2. These new piezometers should be constructed a minimum of six months prior to drilling the proposed well, and water level measurements made monthly at a minimum.
3. Location information (UTM preferred, with elevations as USGS AMSL) for each piezometer, and completion information, will be provided to the property owners in Ruby Mountain Estates. If additional piezometers are constructed down-gradient of the proposed well within the Stoffer or Butterfield creek drainages for use by Spring Creek Utilities Company, all location information will be provided to the Ruby Mountain Estates property owners.
4. In the interests of complete and objective disclosure, we believe that Spring Creek Utilities Company should enlist the services of a qualified third party consulting

engineering firm as the sole collector and distributor of all hydrologic data addressed in this agreement. Spring Creek Utilities Company will pay all professional fees and any other costs related to the use of a third party for data collection and dissemination.

5. Enter into an agreement with several domestic well owners in Ruby Mountain Estates to allow water levels in the private wells to be sounded once per month over the period starting 1 November 2010 and continuing beyond commissioning of the proposed well. It is our preference that pressure transducers be installed in the wells, following standard sanitary practices, to reduce the potential for introduction of bacteria into the wells. Transducers allow for meaningful data collection over time, especially when equipped with dataloggers, so that seasonal variations can be ascertained. Those that participate in this program will allow access to their property for the third party personnel to take measurements from the transducers, or download dataloggers (if so-equipped). Dataloggers would be very beneficial, so that more readings can be taken to determine the pumping and static water levels in the domestic wells.
6. Spring Creek Utilities Company will provide location information, as noted in and consistent with item 3 above, for the domestic wells that are monitored. In addition, location data for the proposed well, when drilled, will be provided in a manner consistent with all other location data.
7. Production data from the down-gradient well will be provided to the property owners in Ruby Mountain Estates, including location information (consistent with all other location data required by this agreement), average duty (in gpm), duty cycle, and water levels (static and pumping) if the data exist.
8. When the proposed well is tested, data from the down-gradient piezometers should be collected at a minimum of every twelve hours for the duration of active pumping, and during the entire recovery phase. Data collected during testing of the proposed well will be shared with the property owners of Ruby Mountain Estates in a timely fashion after the data have been collected, and no later than 30 calendar days after the test is completed. Data from the domestic wells and piezometers will be collected at sufficient intervals to ensure that the effects of the proposed well can be ascertained and quantified. In addition, the following data from the proposed well will be forwarded to the property owners in Ruby Mountain Estates:
    a. Pre-pumping condition in the proposed well (static water level, expressed as depth and elevation).
    b. All step-drawdown information, including dates and times each interval started and stopped, pumping rates/duration, and pumping water level (as depth and elevation).
    c. All continuous pumping data, including date and time pumping began, pumping rates/duration and pumping water level (as depth and elevation).
    d. All recovery data, including date and time pumping stopped, and water levels (as depth and elevation).

e. If multiple pumping tests are performed, all data obtained will be provided to the property owners in Ruby Mountain Estates within 30 calendar days of the completion of each test. Tests that did not proceed as planned due to mechanical or other failure shall be included in the data transmissions, with notes regarding the goal of the failed tests and the reasons the tests were considered failures.
f. Data will be provided as Excel files, and will be formatted so that property owners in Ruby Mountain Estates will be able to generate accurate hydrographs. Date and time information will be provided in Excel Y1900 date code format as well as conventional date and time.
g. Production pumping data from the proposed well will be provided to Ruby Mountain Estates property owners. Data will include duration of pumping, gpm, totalizer readings (referenced to date and time), and pumping water levels.

9. All data collected will be shared with property owners in Ruby Mountain Estates at the conclusion of the pumping test. Should the results indicate that the proposed well will not harm the domestic wells located in Ruby Mountain Estates, Spring Creek Utilities Company will agree to the following:
    a. Continued monitoring of water levels in the domestic wells and piezometers. All data collected will be shared with the property owners in Ruby Mountain Estates on a monthly basis, preferably in Excel format showing the date and time of each reading, the depth to water and the water elevation. The data will clearly indicate which well or piezometer the data were obtained from.
    b. Monitoring of water levels in the domestic wells and piezometers will continue, and the data shared with the property owners in Ruby Mountain Estates, in perpetuity, using the services of a qualified third party paid for by Spring Creek Utilities Company for the data collection/dissemination. This will allow all interested parties to evaluate the data, and examine drawdown in the context of both pumping and precipitation. Long-term monitoring is the best method of establishing the impacts to groundwater from pumping vs. those resulting from natural conditions.
10. If the data collected during testing of the proposed well indicate potential lowering of the static water level in the Ruby Mountain Estates domestic wells to the point that individual wells may require either lowering of pumping equipment, or deepening, in order for those wells to remain viable, Spring Creek Utilities Company will agree to perform the work, at no cost to the Ruby Mountain Estates property owners, necessary to keep the well viable.
11. If the data collected during production pumping of the proposed well indicate potential lowering of the static water level in the Ruby Mountain Estates domestic wells to the point that individual wells may require either lowering of pumping equipment, or deepening, in order for those wells to remain viable, Spring Creek Utilities Company will agree to perform the work, at no cost to the Ruby Mountain Estates property owners, necessary to keep the well viable.

12. If pump re-setting or deepening of an existing domestic well in Ruby Mountain Estates is required to ensure the continued viability of that well, Spring Creek Utilities Company will make every effort to get the work completed in as timely a manner as possible. Spring Creek Utilities Company will ensure that potable water is available to the domestic well owner while the domestic well is out of service, at no cost to the domestic well owner.
13. In the event that domestic wells in Ruby Mountain Estates need to be deepened, a cost analysis will be performed by Spring Creek Utilities Company to determine the increased pumping costs that will be incurred by the domestic well owner because of the deeper water levels. Spring Creek Utilities Company will agree to offset any higher pumping costs that might be incurred by the domestic well owners if those costs can be attributed to drawdown related to pumping from the proposed well.