

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

IN THE MATTER OF APPLICATIONS )  
77564, 77565, 78185, AND 78186 FILED )  
TO APPROPRIATE THE PUBLIC )  
WATERS OF AN UNDERGROUND )  
SOURCE WITHIN THE STEPTOE )  
VALLEY HYDROGRAPHIC BASIN )  
(179), WHITE PINE COUNTY, NEVADA. )

**RULING**

**# 6038**

**GENERAL**

**I.**

Application 77564 was filed on November 3, 2008, by Robinson Nevada Mining Company, to appropriate 26.74 cubic feet per second (cfs) of water from an underground source for mining, milling, domestic, and dewatering purposes. The remarks state that dewatering of the area is required prior to commencing mining and the requested permit is for a non-consumptive duty of 19,303 acre-feet annually (afa) or 12,000 gallons per minute (gpm). The proposed place of use is described as being Sections 12, 13, 23, 24, 25 and 26, T.16N., R.61E., Sections 2 thru 24, 29 and 30, T.16N., R.62E., Sections 7, 17, 18, 19 and 20, T.16N., R.63E., and Sections 19, 20, 28-30, 32 and 33, T.17N., R.62E., all in M.D.B.&M. The point of diversion is described as being located within the SE¼ NE¼ of Section 15, T.16N., R.62E., M.D.B.&M.<sup>1</sup>

**II.**

Application 77565 was filed on November 3, 2008, by Robinson Nevada Mining Company, to appropriate 7.0 cfs of water from an underground source for mining, milling, domestic, and dewatering purposes. The remarks state that the project requires additional water for consumptive mining and milling purposes and the requested permit is for a consumptive duty of 5,000 afa or 3,100 gpm. The proposed place of use is described as being Sections 12, 13, 23, 24, 25 and 26, T.16N., R.61E., Sections 2 thru 24, 29 and 30, T.16N., R.62E., Sections 7, 17, 18, 19 and 20, T.16N., R.63E., and Sections 19, 20, 28-30, 32 and 33, T.17N., R.62E., all in

---

<sup>1</sup> File No. 77564, official records in the Office of the State Engineer.

M.D.B.&M. The point of diversion is described as being located within the SW $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 14, T.16N., R.62E., M.D.B.&M.<sup>2</sup>

### III.

Application 78185 was filed on March 25, 2009, by Robinson Nevada Mining Company, to appropriate 29.0 cfs of water from an underground source for mining, milling, and domestic purposes. The remarks state that this application is being filed in accordance with State Engineer's Order 1198, dated December 15, 2008 (rule 2). The proposed place of use is described as being Sections 12, 13, 23, 24, 25 and 26, T.16N., R.61E., Sections 2 thru 24, 29 and 30, T.16N., R.62E., Sections 7, 17, 18, 19 and 20, T.16N., R.63E., and Sections 19, 20, 28-30, 31, 32 and 33, T.17N., R.62E., all in M.D.B.&M. The point of diversion is described as being located within the NE $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 15, T.16N., R.62E., M.D.B.&M.<sup>3</sup>

### IV.

Application 78186 was filed on March 25, 2009, by Robinson Nevada Mining Company, to appropriate 26.74 cfs of water from an underground source for dewatering purposes. The remarks state that this application is being filed in accordance with State Engineer's Order 1198, dated December 15, 2008 (rule 1). The proposed place of use is described as being Sections 12, 13, 23, 24, 25 and 26, T.16N., R.61E., Sections 2 thru 24, 29 and 30, T.16N., R.62E., Sections 7, 17, 18, 19 and 20, T.16N., R.63E., and Sections 19, 20, 28-30, 31, 32 and 33, T.17N., R.62E., all in M.D.B.&M. The point of diversion is described as being located within the NE $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 15, T.16N., R.62E., M.D.B.&M.<sup>4</sup>

### V.

Applications 77564, 77565, 78185 and 78186 were timely protested by Edward D. Thomas on the following grounds:<sup>1,2</sup>

[For Applications 77564 and 77565]

This application will drain and destroy the Murry Springs water shed which is the source of water for the City of Ely Nevada causing irrevocable harm.

---

<sup>2</sup> File No. 77565, official records in the Office of the State Engineer.

<sup>3</sup> File No. 78185, official records in the Office of the State Engineer.

<sup>4</sup> File No. 78186, official records in the Office of the State Engineer.

[For Applications 78185 and 78186]

This application will drain and destroy the Murry Springs water shed which is the source of water for the City of Ely, Nevada. Causing irrevocable harm to the citizens of this city.

#### VI.

Applications 77564 and 77565 were timely protested by Ralph J. Gubler on the following grounds:<sup>1,2</sup>

Knowing the possibility of complete loss of the City of Ely's Murry Springs, edge of town, naturally flowing, clean water supply, by want and having to remove water near and in depths below the springs elevation while excavating is unthinkable. Water follows the course of least resistance. If allowed will affect everyone in this area.

#### VII.

Protestants City of Ely, Murry Springs Bottling Company, Inc., Keith E. Carson, and Gene and Debra Kolkman withdrew their respective protests prior to the administrative hearing.<sup>1,2,3,4</sup>

#### VIII.

After all parties were duly noticed by certified mail, a public administrative hearing was held on February 24-25, 2010, regarding Applications 77564, 77565, 78185 and 78186 in Ely, Nevada, before representatives of the Office of the State Engineer.<sup>5</sup>

### FINDINGS OF FACT

#### I.

The Steptoe Valley Hydrographic Basin encompasses over 1,940 square miles of surface area and the perennial yield of the basin is estimated at 70,000 afa.<sup>6</sup> A review of records on file in the Office of the State Engineer shows a groundwater resource commitment of over 94,000 afa in the form of permitted and certificated water rights within the Steptoe Valley Hydrographic

---

<sup>5</sup> Exhibit Nos. 1-41 and Transcript vol. 1, public administrative hearing before the State Engineer, February 24-25, 2010, official records in the Office of the State Engineer (Hereafter, "Transcript" and "Exhibits").

<sup>6</sup> Thomas E. Eakin, Jerry L. Hughes, and Donald O. Moore, *Water-Resources Appraisal of Steptoe Valley, White Pine and Elko Counties, Nevada*, Water Resources-Reconnaissance Series Report 42, (Department of Conservation and Natural Resources and United States Geological Survey), June 1967.

Basin.<sup>7</sup> Of this total, there are 25,000 acre-feet of essentially undeveloped industrial water rights, 41,000 acre-feet of irrigation rights of which about 27,500 afa was pumped in 2009,<sup>8</sup> and about 21,000 acre-feet of largely undeveloped and/or temporary-in-nature mining and milling water rights.

The State Engineer is allowed to issue permits for a finite period of time under certain conditions, more specifically, that the perennial yield of the basin will not be exceeded during the period of use of the permits.<sup>9</sup> The applications that are the subject of this ruling are for additional temporary mining, milling and/or dewatering water rights. Under the current plan of operations, mining will only continue for an additional 7 years through the year 2017, therefore, the use of water requested will be temporary in nature.<sup>10</sup>

The State Engineer finds that the groundwater resource of the Steptoe Valley Hydrographic Basin is currently underutilized under existing water rights and an additional appropriation of groundwater for temporary mining, milling and dewatering, for the quantities of water requested, will not exceed the perennial yield of the groundwater for the limited duration of the mining project.

## II.

The State Engineer requested the Applicant provide specific information regarding the mine project and related water right applications.<sup>11</sup> The Applicant provided evidence and testimony addressing these issues at the administrative hearing.

Robinson Nevada Mining Company (RNMC) operates a large mine generally west of the City of Ely in White Pine County, Nevada. The mine is currently operating and employs approximately 540 persons.<sup>12</sup> The mine produces primarily copper and some gold along with lesser amounts of silver and molybdenite. The operation mines approximately 220,000 tons of material per day and processes approximately 44,000 tons per day of material through the mill.<sup>13</sup> At this time the mine wishes to pursue ore that is below the current water table in the mining area

---

<sup>7</sup> Nevada Division of Water Resources Water Rights Database, Hydrographic Basin Summary, Steptoe Valley Hydrographic Basin (179), March 24, 2010, official records in the Office of the State Engineer.

<sup>8</sup> Crop and Irrigation Pumpage Inventory Steptoe Valley Basin, 179, official records in the Office of the State Engineer.

<sup>9</sup> NRS § 533.371.

<sup>10</sup> Transcript, p. 18.

<sup>11</sup> Exhibit No. 2.

<sup>12</sup> Transcript, p. 24.

<sup>13</sup> Transcript, p. 27.

and to accomplish this task it must lower the water table through a dewatering process to reach the ore source. Applications 77564, 77565, 78185 and 78186 were filed for two purposes. The first is to increase the amount of water allowed under current permits for consumption and dewatering purposes and the second purpose is to comply with State Engineer's Order 1198/1198-A, which is an order to streamline the process for water management at the mine site.<sup>14</sup> Current water right permits and certificates approved for historical mining operations total 13,204 afa for consumptive mining and milling purposes.<sup>15</sup> The RNMC showed through a water balance diagram for the mill and through testimony that additional water rights in the amount of 5,000 afa are necessary for consumptive use in the milling process for a total consumptive use of 18,204 afa.<sup>16</sup> Additionally, 11,300 afa for non-consumptive water is sought under the applications for dewatering purposes.<sup>17</sup>

Prior to the filing of the applications, there were concerns that mine dewatering activities may lower the discharge of Murry Springs, the principal water supply for the City of Ely. To address these concerns, the RNMC and the City of Ely reached an agreement titled, *Agreement for City of Ely Water Supply Plan*, dated February 12, 2009.<sup>18</sup> The agreement outlines various requirements to be performed by RNMC, such as rehabilitation of the existing Ely municipal water supply system, the drilling of new municipal water supply wells, funding of pumping costs, creation of an escrow fund for future mitigation, and other miscellaneous provisions. Since the beginning of 2009, RNMC has rehabilitated two existing wells and has constructed three new wells for the City of Ely to ensure that the City's typical peak demand of 6,000 gallons per minute (gpm) can be met.<sup>19</sup> The third new well (RW-6P) was recently completed up-gradient of Murry Springs and is being test pumped. The water is being discharged into Murry Creek near the City's existing chlorination facility. This well and possibly one or two additional wells in the same area will be utilized to dewater the South Block aquifer, and to physically deliver water to the City's existing water intake infrastructure. These actions will completely mitigate any reduction in flow from Murry Springs as a result of dewatering activities.<sup>20</sup> The wells in the area of Murry Springs are located on City of Ely property and will belong to the City

---

<sup>14</sup> Exhibit No. 34.

<sup>15</sup> RNMC permits and certificates, official records in the Office of the State Engineer.

<sup>16</sup> Exhibit No. 38.

<sup>17</sup> Exhibit No. 40.

<sup>18</sup> Exhibit No. 36.

<sup>19</sup> Transcript, pp. 78-80.

<sup>20</sup> Exhibit 40 and Transcript, pp. 99-100 and 109.

of Ely as part of the agreement. Additionally, water produced from these wells in excess of that needed by the City of Ely will overflow into the Murry Creek natural channel, as it has historically flowed from the springs, to the north and east out onto the Steptoe Valley floor.<sup>21</sup>

The State Engineer finds that the Applicant is in the process of mitigating any potential impacts that dewatering may have on the City of Ely municipal water supply and has committed to further mitigation as provided for in the *Agreement for City of Ely Water Supply Plan*, dated February 12, 2009.

### III.

Murry Springs provides the City of Ely with its principal source of municipal water and its flow rates have historically ranged between 1,500 and 5,000 gpm with an average annual rate of 3,400 gpm.<sup>22</sup> The Applicant presented empirical evidence at the hearing that was derived from pumping and monitoring the South Block aquifer that showed Murry Springs will be affected by the planned dewatering at the anticipated future pumping rates. Murry Springs sits at the northeastern edge of the South Block aquifer, a large geologic formation consisting of carbonate rock or limestone, and the spring area acts as an overflow from the South Block aquifer.<sup>23</sup> Water levels within the South Block aquifer must be lowered to an elevation of 6,250 feet to mine the ore in the pit areas of the mine. The elevation at Murry Springs is 6,583 feet. The water table elevation in the South Block aquifer is about 6,600 feet and is about 200 feet higher than the Steptoe Valley alluvial aquifer immediately to the east. This fact and other technical evidence presented confirm that there are geologic barriers between the South Block aquifer and adjacent formations. Besides the overflow at the spring area, there is groundwater leakage that occurs across the eastern boundary of the South Block formation into the Steptoe Valley aquifer, but is estimated to be on the order of only 100 to 200 gpm (160 to 323 afa).<sup>24</sup> It was testified that the gradient may reverse when the water levels in the South Block aquifer are lowered to an elevation below the water elevations on the valley floor but the westward leakage across the boundary is expected to be less than 200 afa.<sup>25</sup> Because of the geologic boundaries, the expert testimony from the Applicant was that there would be no impact from the proposed pumping of 11,300 afa from the South Block aquifer or from pumping up to 18,204 afa from

---

<sup>21</sup> Transcript, p. 81.

<sup>22</sup> Transcript, pp. 80.

<sup>23</sup> Transcript, pp. 71-73.

<sup>24</sup> Transcript, p. 102.

<sup>25</sup> Transcript, pp. 103 and 105.

areas near the mine to existing groundwater rights in adjacent areas and that there would be no impacts to existing domestic wells.<sup>26</sup>

The State Engineer finds that impacts at Murry Springs will be mitigated to the satisfaction of the City of Ely and the State Engineer. The State Engineer finds that there will be no adverse impacts to water rights holders in the valley to the east or northeast from Murry Springs and water levels in those areas will be monitored to ensure impacts do not occur in those areas.

#### IV.

Mining projects that require dewatering to reach the ore body provide numerous water resource management challenges. The Office of the State Engineer has found that such projects require a proactive water management approach. The State Engineer recognizes but is not a party to the agreement between the City of Ely and the RNMC. Additional monitoring and continual mitigation consistent with and possibly beyond the terms of the agreement will be required as a condition of this ruling. The State Engineer finds that in order to adequately monitor effects of pumping as the project progresses and to protect existing water rights holders and domestic wells, the Applicant is required to submit and have approved a monitoring, management, and mitigation plan.

#### V.

Applications 77564 and 77565 were protested by Ralph J. Gubler and Applications 77564, 77565, 78185 and 78186 were protested by Edward D. Thomas. At the administrative hearing, appearances were taken for the record and it was determined that none of the Protestants nor their representatives appeared at the hearing to substantiate their protest claims with evidence and testimony.<sup>27</sup>

The protests, as filed, focus on the impact of the Applications on the water flow of Murry Springs. The proposed pumping under the subject Applications, based on the Applicant's own testimony and evidence, will in fact cause Murry Springs to cease natural flow for a period of time. However, the only water rights on Murry Springs are owned by the City of Ely and the Ely City Municipal Water Department,<sup>28</sup> and the City has entered into an agreement with the Applicant to mitigate the loss of flow from Murry Springs and has improved the City's municipal

---

<sup>26</sup> Transcript, pp. 100, 111-113.

<sup>27</sup> Transcript, p. 8.

<sup>28</sup> Nevada Division of Water Resources' Water Rights Database, Special Hydrographic Abstract, March 1, 2010.

water supply by refurbishing existing groundwater wells and developing new groundwater wells.<sup>29</sup>

The City of Ely has withdrawn its protest to these applications, and has an agreement with the Applicant for long term mitigation and the replacement of their municipal water supply. In addition, full water level recovery in the South Block aquifer near the spring area is projected to occur in approximately 15 years after cessation of dewatering and flow from Murry Springs would reoccur around that time frame.<sup>30</sup> The RNMC will be required to continually mitigate any impact to Murry Springs to the extent that the existing senior water rights of the City of Ely can be satisfied. The State Engineer therefore finds that the protests may be overruled.

### CONCLUSIONS

#### I.

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

#### II.

Before either approving or rejecting an application, the State Engineer may require such additional information as will enable him to properly guard the public interest.<sup>32</sup>

#### III.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public water where:<sup>33</sup>

- A. there is no unappropriated water at the proposed source;
- B. the proposed use or change conflicts with existing rights;
- C. the proposed use or change conflicts with protectible interests in existing domestic wells as set forth in NRS § 533.024; or
- D. the proposed use or change threatens to prove detrimental to the public interest.

---

<sup>29</sup> Exhibit No. 36.

<sup>30</sup> Transcript, p. 97.

<sup>31</sup> NRS Chapters 533 and 534.

<sup>32</sup> NRS § 533.375.

<sup>33</sup> NRS § 533.370(5).

**IV.**

The State Engineer concludes that the proposed manner of use under Applications 77564, 77565, 78185 and 78186 is by nature a temporary water use and Applications 77564, 77565, 78185 and 78186 can be issued for a finite period of time without exceeding the perennial yield of the Steptoe Valley Hydrographic Basin.

**V.**

The protest issues regarding loss of flow at Murry Springs have been addressed and overruled. The City of Ely is the sole holder of water rights on the springs and uses Murry Springs as a municipal water supply; however, the City of Ely has reached an agreement with the RNMC and has withdrawn its protest to the applications.<sup>34</sup> The Applicant presented testimony and evidence, and the State Engineer has found that the RNMC will continually mitigate any impact to Murry Springs, to the extent that the existing senior water rights of the City of Ely can be satisfied.

The State Engineer concludes that the issues of impact to Murry Springs have been adequately addressed by the Applicant and Applications 77564, 77565, 78185 and 78186 can be considered for approval. The State Engineer concludes, based on the evidence and testimony, that the protests to the applications be dismissed.

**VI.**

Based on substantial evidence and testimony submitted by the Applicant, the State Engineer concludes that the approval of Applications 77564, 77565, 78185 and 78186 will not conflict with existing water rights exclusive of Murry Springs, will not conflict with protectible interests in existing domestic wells as set forth in NRS § 533.024 and will not threaten to prove detrimental to the public interest. The State Engineer further concludes that there will be no conflict with the existing water rights at Murry Springs as continual mitigation will be required through a monitoring, management and mitigation plan approved by the State Engineer to ensure the senior water rights on this source are satisfied.

---

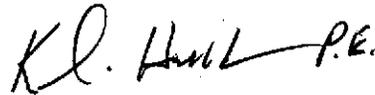
<sup>34</sup> Exhibit No. 22.

**RULING**

The protests to Applications 77564, 77565, 78185 and 78186 are hereby overruled and the applications are hereby approved subject to:

1. State Engineer's Order No. 1198/1198-A;
2. An approved monitoring and mitigation plan;
3. Existing rights;
4. Payment of the statutory permit fees.

Respectfully submitted,



TRACY TAYLOR, P.E.  
State Engineer



Dated this 6th day of  
April, 2010.