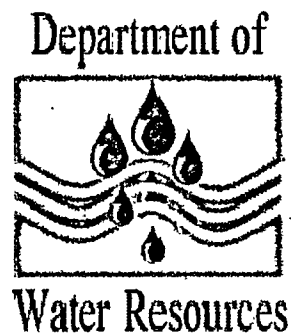


EFFLUENT MANAGEMENT PLAN

South Truckee Meadows Effluent Reuse Area

June 2008

Washoe County Department of Water Resources





June 25, 2008

**Washoe County
Department of
Water Resources**

4930 Energy Way
Reno, NV 89502-4106
Tel: (775) 954-4600
Fax: (775) 954-4610

Joe Maez
Nevada Division of Environmental Protection
901 S. Stewart Street, Suite 4001
Carson City, NV 89701

Re: Effluent Management Plan
South Truckee Meadows Effluent Reuse Area
Discharge Permit NEV96005

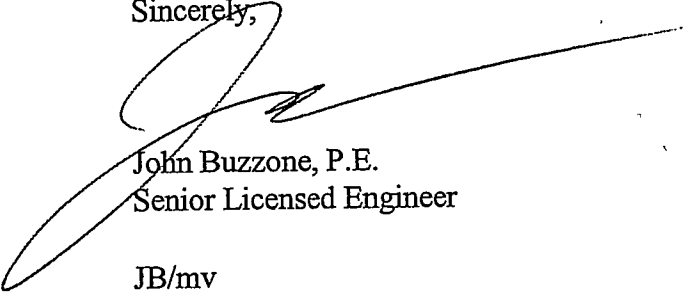
Dear Mr. Maez:

Attached are two copies of the Effluent Management Plan for the South Truckee Meadows Effluent Reuse Area (STMERA) in support of the above-referenced permit.

As you know, the approved permit renewal application consolidated areas in the South Truckee Meadows area (and east of South Virginia Street) that receive treated effluent under one permit. The attached Effluent Management Plan reflects the changes resulting from the consolidation.

Please call me at (775) 954-4725 if you have any further questions.

Sincerely,



John Buzzzone, P.E.
Senior Licensed Engineer

JB/mv
Attachment

c: Rick Warner, P.E., Acting Engineering Manager
~~Joe Howard, P.E., Sr. Licensed Engineer~~

Department of



Water Resources

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1 INTRODUCTION

Washoe County has established a policy that treats wastewater effluent as a valuable resource and should be used beneficially. Reclaimed wastewater is particularly well suited for non-potable uses, such as landscape irrigation, that allow for the conservation of potable water.

In accordance with Nevada Administrative Code (NAC) 445A.275.1(b), the Nevada Division of Environmental Protection (NDEP) has the authority to issue permits for the use of reclaimed wastewater. NAC 445A.275.1(a) requires users of reclaimed wastewater to prepare Effluent Management Plans (EMPs) describing the practices for the application of the reclaimed water. NDEP has the regulatory oversight for the approval of Effluent Management Plans (EMPs).

NDEP first issued Washoe County Department of Water Resources discharge permit NEV96005 for the South Meadows Business Park / Double Diamond Ranch discharge area. The permit authorized the use of treated effluent from Washoe County's South Truckee Meadows Water Reclamation Facility (STMWRF) for landscape irrigation at a business park, residential common areas, and at the South Valley Sports Complex. The permit expired on October 14th, 2006. As part of the renewal application, the permit was modified to incorporate Washoe County's effluent discharge permit NEV2003512 issued by NDEP for the South Truckee Meadows area. The combined permit forms the South Truckee Meadows Effluent Reuse Area (STMERA). Some discharge locations (sites located to the west of South Virginia Street) included in the original permit NEV96005 are not included in the combined permit, and are covered under a separate consolidated permit for discharge locations west of the STMERA. Notably, sites not included in the combined permit include Manogue High School and the South Valley Sports Complex.

As the community continues to grow and additional properties within STMERA are developed, additional discharge locations may be identified. The consolidated permit is intended to be expandable to include these additional future discharge locations. This EMP will be updated to include additional discharge locations as they are added to the discharge permit.

This EMP defines the policies and procedures to be implemented for the application of STMWRF reclaimed water within the STMERA, as authorized by the NDEP discharge permit. This EMP was prepared in general accordance with the requirements of NDEP's *WTS-1B: General Criteria for Preparing an Effluent Management Plan*.

1.1 Project Area

STMERA consists of approximately 13,542 acres (21.2 square miles) of developed and undeveloped land located in southern Reno and unincorporated Washoe County. A map of the STMERA service area is provided in Figure 1. STMERA is developed with residences, commercial and industrial facilities, parks, schools, and transportation corridors. Many of the developed areas are master-planned developments containing landscaped common areas.

Within STMERA, there are currently 188 individual discharge locations. At these locations, reclaimed water is used for landscape irrigation and dust control (filling of construction water trucks). The discharge locations are tabulated in Appendix A, which provides the name of the property owner or operator, location, site use, and estimated

annual reclaimed water application rates. The discharge locations are shown on Figure 2, which identifies the residential and commercial properties and roadway corridors that utilize reclaimed water for irrigation. The figure also identifies the layout of the reclaimed water distribution system and the location of reclaimed water meters.

Sites designated commercial utilize the reclaimed water for irrigation of onsite landscaping and for roadway landscaping. Sites designated residential utilize reclaimed water for irrigation of common area landscaping and roadway landscaping. Sites designated as parks and schools utilize the reclaimed water for irrigation of onsite landscaping. Sites designated as truck fills utilize the reclaimed water for filling water trucks to control dust at construction sites. Roadway corridors utilize reclaimed water for irrigation of roadside landscaping.

As development occurs within the STMERA service area, additional sites will be served with reclaimed water. As new STMERA discharge locations are identified, they will be evaluated for their appropriateness and water demand. All future discharge locations will be developed in accordance with the requirements of this EMP and included in an update of this plan.

1.2 Discharge Permit

NDEP permit No. NEV96005 was first issued for the South Meadows Business Park / Double Diamond Ranch discharge location. This permit was revised and expanded to include all discharge locations within the STMERA service area. A copy of the permit is provided in Appendix B.

2 EMERGENCY PROCEDURES AND CONTACTS

In the event of a release, site personnel are to implement the following actions:

1. Turn off the reclaimed water supply to the affected location (nearest control valve or meter box).
2. Contact appropriate maintenance personnel as follows: if the affected system is owned by Washoe County (distribution system), contact the Washoe County Department of Water Resources – Utilities Division; if the affected system is privately owned (individual irrigation systems), contact the property manager or owner.
3. Contact the Washoe County Department of Water Resources representative (whether the affected system is owned by Washoe County or privately owned) and provide the following information:
 - Time and date of release
 - Exact location of discharge and estimate of volume
 - Flow path of release
 - Name of waterbody release entered
 - Cause of release
 - Steps taken to stop the release and any corrective or preventative actions taken.

Washoe County Department of Water Resources – Utilities Division:

Business Hours (775) 954-4600
After Hours (775) 954-4600

Washoe County Department of Water Resources Representative:

Mr. Joe Howard
4930 Energy Way
Reno, Nevada 89502
(775) 954-4623

3 RECLAIMED WATER SYSTEM

STMWRF is located near the north end of the South Truckee Meadows, near Huffaker Hills, and is the only source of reclaimed water used by the system. Treated effluent is pumped from STMWRF to the Huffaker Storage Reservoir.

Currently, STMWRF treated effluent is insufficient to meet the demand for reclaimed water in the STMERA service area. To meet current demands, water from Thomas Creek and White Creek are diverted to the storage reservoir. As plant flows increase, less creek water will be diverted to the storage reservoir.

After leaving the Huffaker Storage Reservoir, but prior to entering the distribution system, the reclaimed water passes through a sand filter and is disinfected with sodium hypochlorite. The disinfection dosing is adjusted to achieve a minimum free chlorine residual of 0.2 milligrams per liter (mg/l) throughout the distribution system.

3.1 STMWRF

STMWRF serves residential, commercial, and industrial properties in the southern Reno area and has a current treatment capacity of 3.0 million gallons per day (MGD) (average dry weather flow). STMWRF has a creek makeup water capacity of 3.0 MGD.

STMWRF operates under NDEP discharge permit No. NEV40024. The permit includes limitations on the effluent's water quality, as shown in Table 1 below.

Table 1: Permit Discharge Limits

Water Quality Parameter	Discharge Limit	
	<u>30-Day Average</u>	<u>Daily Maximum</u>
Flow (MGD)	3.0	3.52
CBOD ₅ (mg/l)	30	45
TSS (mg/l)	30	45
Total Coliform (cfu)/100ml)	2.2	23
Nitrate (mg/l)	10	Monitor
pH (S.U.)	6.0 – 9.0	Monitor

Note: CBOD₅ indicates 5-day carbonaceous biochemical oxygen demand; TSS indicates total suspended solids; cfu indicates colony-forming units; ml indicates milliliters; mg/l indicates milligrams per liter, S.U. indicates standard units.

STMWRF, as it is currently configured, includes the following treatment processes and equipment:

- Headworks – screw lift, bar screen, mechanical fine screen
- Oxidation ditch – two 1,578,389 gallon tanks
- Secondary clarification – two 80-foot diameter tanks
- Tertiary filtration – eight 200 square-foot sand filter basins
- Disinfection – sodium hypochlorite
- Solids handling – sludge stabilization and dewatering at Truckee Meadows Water Reclamation Facility

3.1.1 STMWRF Effluent Quality

The observed STMWRF effluent quality for the period April 2003 through March 2006, is summarized in Table 2 below.

Table 2: Observed STMWRF Effluent Quality

Water Quality Parameter	Observed Mean
Influent Flow	1.96 MGD
Effluent Flows	2.47 MGD
CBOD ₅	2.9 mg/l
TSS	3.1 mg/l
Fecal Coliform (Geometric Mean)*	1.5 cfu/100ml
Nitrate – N	2.4 mg/l
Ammonia – N	0.32 mg/l
Total Nitrogen	3.8 mg/l
pH (observed minimum/maximum)	7.1/8.0 S.U.

Note: Fecal coliform has been monitored in the past, but in accordance with the new STMWRF permit, total coliform will be monitored.

The table shows the plant effluent flows exceeded the influent flows. This is due to the addition of creek water to meet the reclaimed water demand and, to a much smaller degree, the addition of groundwater from dewatering at STMWRF structures.

3.2 Effluent Storage

Treated effluent is pumped from STMWRF to the Field Creek Effluent Storage Reservoir. This in-ground lined reservoir was constructed in 1998, and has a total storage capacity of six million gallons (18.4 acre-feet). The reservoir is located adjacent to Arrow Creek Parkway, near the intersection with Geyser Road. The reservoir provides daily storage and maintains pressures in the distribution system. There is no storage at the individual discharge locations.

3.3 Distribution System

The distribution system consists of 8-inch and 12-inch PVC piping. The distribution system includes three pressure-reducing stations (PRVs) and is divided into four pressure zones. Each discharge location has a metered point-of-connection equipped with a totalizing flow meter and an isolation valve. Figure 3 shows the entirety of the reclaimed water distribution system.

4 CROSS CONNECTIONS

Cross connections are connections between the reclaimed water system (including irrigation systems) and potable water systems that serve as potential sources of contamination for the potable water system. Cross connections can be direct connections, such as pipes physically connecting the reclaimed water system and the potable water system; or indirect connections in which standing reclaimed water

contaminates the potable system during periods of low back pressure in the potable systems.

To avoid cross connections, direct connections between the reclaimed water distribution system and the potable water system or between individual reclaimed water irrigation systems and the potable water system will not be allowed. The building departments reviewing development plans are responsible for not allowing conditions where indirect cross connections might occur. Furthermore, Washoe County Department of Water Resources will review all irrigation plans for potential cross connection conditions.

To help avoid accidental cross connections during construction or repair operations, the reclaimed water system is constructed using piping that has been permanently colored purple. Reclaimed water distribution piping has been installed with a caution tape buried above the piping that indicates the piping buried below contains reclaimed water. Exposed fittings, meters, and piping are also colored purple and/or have signage indicating it contains reclaimed water. Contractors and maintenance personnel have been educated on the use of purple piping and equipment for reclaimed water systems and that purple colored piping should never be connected to a potable water system.

5 HEALTH AND SAFETY

5.1 Public Notification

The public will be notified of the use of reclaimed water by posting signs at the discharge locations. Signs will be located at driveway entrances to each property, in each roadway landscape island, roadway shoulders and medians, irrigated common areas, park parking lots and pedestrian entrances, and schools. In no case will sign spacing exceed 500 feet. Signs will be 8 inches tall by 12 inches wide and contain the following text:

**TREATED WASTEWATER EFFLUENT
USED FOR IRRIGATION
DO NOT DRINK
AVOID CONTACT**

An example of the sign is included in Appendix C.

5.2 Hygiene

Irrigation and application methods for the reclaimed water have been designed to reduce the potential for exposure of reclaimed water to the general public. Those most likely to come into contact with reclaimed water are workers maintaining landscaping and workers maintaining or repairing the distribution system and irrigation systems. These people are to receive the following instructions:

- Do not drink reclaimed water.
- Workers are encouraged to maintain current typhoid, hepatitis, and tetanus vaccinations.
- Try to minimize contact with reclaimed water.
- Do not use reclaimed water for washing.
- Always wash hands and face with clean water and soap before eating, drinking, or smoking.

- Do not eat, drink, or smoke in areas where reclaimed water is used.
- Wear rubber gloves when working around reclaimed water.
- Always treat cuts and abrasions (disinfect and cover) immediately before continuing work around reclaimed water.
- Make sure the area is clear of people that might be sprayed before activating an irrigation system.
- Report any condition to your supervisor that you feel could pose a threat to workers or to the public.

6 RECLAIMED WATER CLASSIFICATION AND TYPE OF USE

6.1 Classification of Reclaimed Water

A Category A effluent has the criteria presented in Table 3 below.

Table 3: Category A Effluent

Access	Allowable Points-of-Use	Buffer Zones	Water Quality Criteria
Public access is uncontrolled. Human contact with reclaimed water can reasonably be expected to occur	Areas covered in all categories, plus parks, play grounds, commercial lawns, and residential lawns	None required	30-Day total coliform geometric mean is less than or equal to 2.2 MPN (or cfu)/100ml. Daily maximum: 23 MPN (or cfu)/100ml

STMWRF effluent meets the water quality criteria for a Category A effluent (refer to Section 3.1.1 for STMWRF effluent quality). As such, reclaimed water may be applied to the permitted sites. Additionally, no buffer zone between the points-of-use and areas of public access are required. While no access restrictions will be enforced, spray irrigation will be encouraged to occur in the late evening to early morning hours (9:00 PM to 5:00 AM).

6.2 Nitrogen Balance

According to NDEP's *WTS-1B: General Criteria for Preparing an Effluent Management Plan*, the EMP must include a nitrogen balance when the effluent total nitrogen concentration is greater than 10 mg/l. Concentrations less than 10 mg/l are assumed to result in a nitrogen-loading rate that is less than the nitrogen demand expressed the irrigated vegetation.

According to Section 3.1.1, STMWRF effluent's mean total nitrogen concentration is 3.8 mg/l, which is less than the 10 mg/l criterion. Therefore, a nitrogen balance is not required. If future monitoring finds the effluent's mean annual total nitrogen concentration has increased to above 10 mg/l a nitrogen balance will be performed and this EMP updated accordingly.

6.3 Applications of Reclaimed Water

Reclaimed water will be used for irrigation at roadside landscaping, parks, schools, commercial facilities, commercial and residential common areas, and construction sites. Reclaimed water will be discharged in three manners: spray irrigation, drip irrigation, and at truck fills (for construction use).

These uses will be conducted in accordance with the criteria established for Category A treated effluent. Irrigation and truck fill management plans are presented in Sections 9 and 10, respectively.

7 MONITORING REQUIREMENTS

7.1 Reclaimed Water

Washoe County will monitor the amount of reclaimed water discharged at each discharge location. Each discharge location connected to the distribution system is equipped with a flow totalizing flow meter. The meters are read and recorded monthly and the monthly usage determined by subtracting the previous month's reading.

In addition to monitoring reclaimed water usage, bacteriological activity will be monitored by collecting samples of the reclaimed water at the point of entry to the distribution system (STMWRF). The samples will be analyzed for total coliform by a State of Nevada certified laboratory.

7.2 Groundwater

Washoe County implemented a groundwater monitoring program when discharge permit NEV96005 was first issued for the South Meadows Business Park / Double Diamond Ranch reclaimed water system. The monitoring found no indication that the use of reclaimed water adversely impacted groundwater. When the permit was renewed in 2001, NDEP no longer required Washoe County monitor groundwater. No further groundwater monitoring is proposed under this EMP.

8 DISCHARGE REPORTS

Washoe County will submit Discharge Monitoring Reports (DMRs) to NDEP on a quarterly basis. A DMR will be prepared for each calendar month summarizing the monitoring results for that month. The DMRs will include the amount of water discharged (monthly and cumulative annual) and the measured bacteriological activity. A sample copy of a DMR is provided in Appendix D.

9 IRRIGATION MANAGEMENT PLAN

9.1 Soils

Soils information was obtained for STMERA from the USDA Soil Survey. Soil types for STMERA are shown on Figure 4, which includes descriptions of the soil types. Actual soil types might vary from what was defined for by the USDA Soil Survey database due to construction activities in which soils were amended, relocated, exported, or imported.

9.2 Irrigation Systems

This irrigation plan presents the policies and practices for the design and operation of irrigation systems.

Each irrigation system will be equipped with a totalizing flow meter. The flow meters will be read monthly and the readings recorded. Anomalous readings that suggest a broken line or some other malfunction that could result in a release of reclaimed water will be investigated. Hose bibs will not be allowed on irrigation systems, however lockable quick-connect devices colored purple will be allowed.

Reclaimed water will be applied to landscaping by two methods: spray irrigation and drip irrigation. These two irrigation methods are significantly different and require different strategies to minimize the potential for exposure of the public to the reclaimed water. Engineering and management controls to be implemented for the drip and spray irrigation systems are presented in the following sections.

Washoe County Department of Water Resources shall review all plans for proposed reclaimed water irrigation systems. All irrigation plans will be required to meet certain minimum standards. These standards are shown on the example drawings provided in Appendix E.

9.2.1 Spray Irrigation

In general, spray irrigation will be used for turf grass. While not required for Category A treated effluents, efforts will be made to minimize public exposure due to spray irrigation. To achieve this, irrigation will be encouraged to occur between the hours of 9:00 P.M. and 5:00 A.M. Irrigation during this period minimizes the likelihood the public will be present in the irrigation areas. Additionally, a wind monitoring system has been installed to automatically suspend irrigation during periods of high wind. This will reduce the potential for aerosolized reclaimed water to drift away from the irrigation area and enter areas of public use. The wind monitoring system consists of a combination of local and regional anemometers equipped with a variable set-point data logger and transmitter. The monitoring system will transmit a radio signal when the wind speeds continuously exceed 20 miles per hour (mph) for five minutes. Receivers located at pressure reducing stations will, upon receipt of the signal, actuate flow control solenoids to shut off the flow of reclaimed water to the irrigation systems. Irrigation will recommence when the wind speeds decrease and the transmitter sends the appropriate signal.

The individual spray irrigation systems will be designed so as to optimize the use of reclaimed water (i.e., appropriate sprinkler head spacing, spray nozzles selected for optimal watering rates, etc.). The intent is to develop irrigation systems that provide a consistent and even distribution of irrigation water that does not over water in some areas, while under water in others. Spray nozzles will be selected that have watering rates that do not exceed the soil's infiltration capacity.

Over pressure conditions tend to cause misting and aerosolization of irrigation water. Therefore, the reclaimed water irrigation systems will be operated within the pressure ranges specified by the spray nozzle manufacturers. This will be accomplished by installing pressure regulators at the control valves. Where it is not feasible to install pressure regulators, the irrigation valves can be throttled, which would lower the pressure at the spray nozzles.

The spray irrigation system will be operated so as to not cause ponding or runoff. Ponding and runoff are usually caused when too much water is applied during a daily cycle, or when the water is applied too fast. Irrigation schedules and rates will be set so as to minimize ponding and runoff. If ponding or runoff is detected during weekly inspections, the irrigation schedule will be modified to either reduce the total amount applied or to spread out the irrigation (e.g., a 30-minute irrigation cycle can be separated into three 10-minute cycles with sufficient time in between to allow for infiltration).

All spray irrigation zones will be inspected weekly for broken lines, missing or broken spray nozzles, misaligned spray nozzles, and other conditions that would cause a release of reclaimed water.

Supplemental spot irrigation may be applied as needed provided the irrigation is applied by hand using a hose and spray nozzle and the supplemental irrigation does not result in an offsite discharge. Personnel must be onsite at all times while spot irrigating.

9.2.2 Drip Irrigation

Ponding and runoff are much less likely to occur with drip irrigation systems, which do not present the same level of potential public exposure as spray irrigation systems. However, irrigation cycles still need to be monitored to prevent excessive watering.

The individual drip irrigation systems will be designed so as to optimize the use of reclaimed water. The intent is to develop irrigation systems that provide a consistent and even distribution of irrigation water that does not over water in some areas, while under water in others. Drip irrigation nozzles will be selected for watering rates that are consistent with the soil type and plant demands.

Because drip irrigation systems keep the irrigation water below ground and physically separated from the public, it is acceptable to operate them any time of day.

All drip irrigation zones will be inspected weekly for broken lines and other conditions that would cause a release of reclaimed water.

9.3 Irrigation Requirements

The irrigation water demand for each existing discharge location was determined using historical consumption data. The demand for each discharge location is provided in Appendix A.

Storage of reclaimed water will not occur at any of the discharge locations. No additional treatment of reclaimed water will occur at the discharge locations.

10 TRUCK FILL MANAGEMENT PLAN

Reclaimed water is periodically used for dust control at construction sites. This use is consistent for reclaimed water that meets the requirements for a Category A treated effluent. Dust control is performed by spraying unpaved roads and areas to be graded with reclaimed water using water trucks.

The water trucks are filled at truck fill stations, which are established, as needed, by construction companies operating in the STMERA. As the STMERA develops, the need for reclaimed water for dust control is expected to diminish.

10.1 Truck Fill Stations

The truck fill stations are temporary facilities and are constructed on an as-needed basis by contractors operating in the STMERA area. The contractors must apply to the Washoe County Department of Water Resources for a permit to construct and operate a reclaimed water truck fill station. Each truck fill station is required to be equipped with a totalizing flow meter, which is read monthly during periods of operation. The Washoe County Department of Water Resources will review the plans for each proposed truck fill to verify the design meets with the applicable standards.

Truck fill stations are to be graded so that runoff does not flow directly to a waterbody or to an area of public use. Water trucks filling at reclaimed truck fill stations are to have labels indicating the water is non-potable and not for human consumption. The filling process is to be continuously monitored to help prevent overfills.

10.2 Truck Fill Requirements

Water demands vary depending upon the type of construction activity occurring. Estimates of the current truck fill water demands are presented in Appendix A, which are based on historical use. The truck fill water demand is expected to decrease over time as the area becomes developed.

10.3 Dust Control Requirements

Users of reclaimed water for dust control will be informed of the following restrictions on the use of reclaimed water for dust control:

- Dust control activities are to be conducted in manner that does not cause ponding or runoff.
- Reclaimed water is to be used in a manner that does not cause a direct release to waterbodies or storm drains.
- Reclaimed water is to be used in a manner that does not cause direct contact with people.
- Operators are to notify the Washoe County Department of Water Resources in the event of a release to a waterbody.

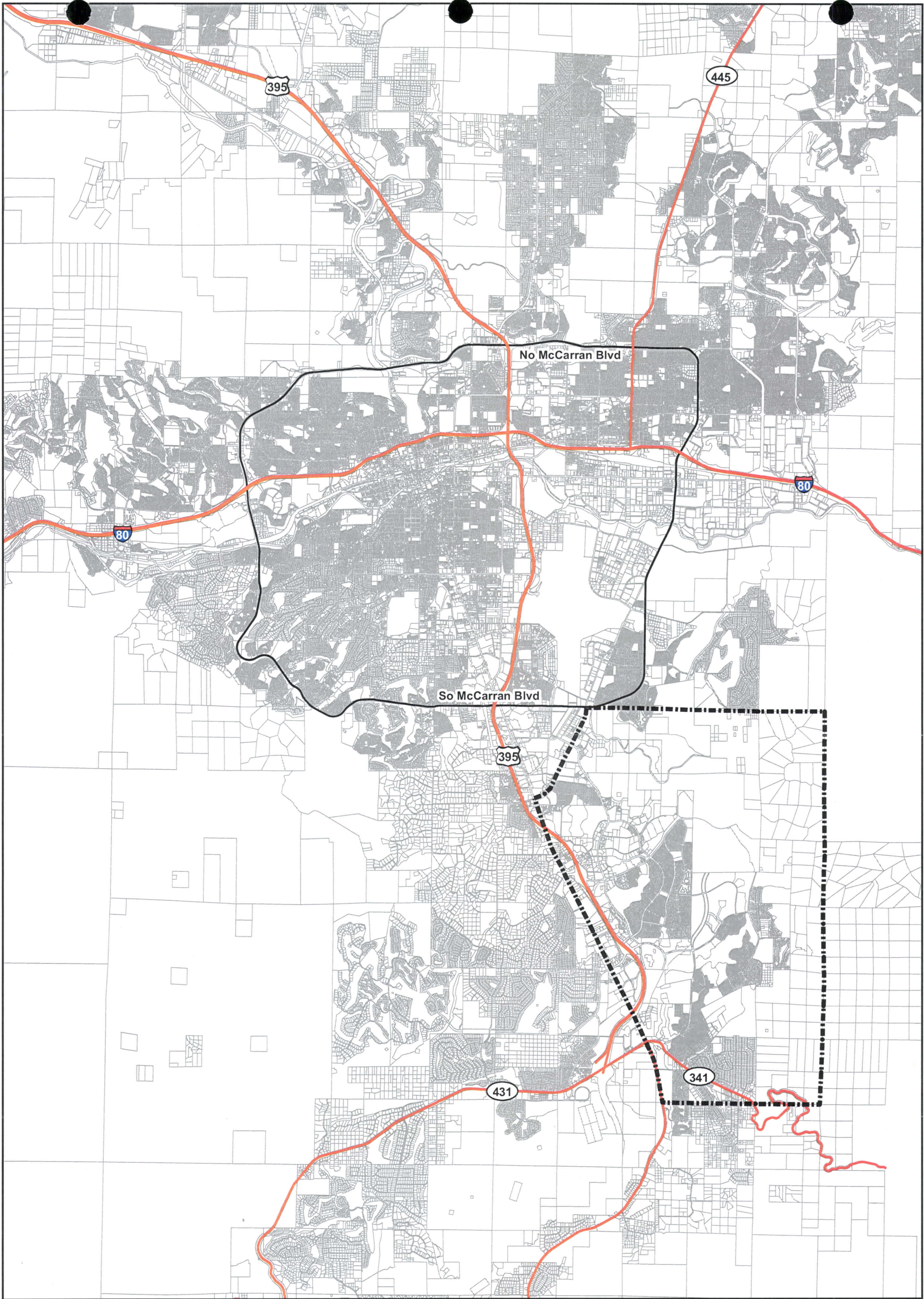


Figure 1
South Truckee Meadows
Effluent Reuse Area
Location Map



Reuse Area Boundary

0 0.375 0.75 1.5 2.25 3 Miles



Notes: The Scale and configuration of all Information shown heron are approximate only and are not intended as a guide for design or survey work. Reproduction is not permitted without prior written permission from the Washoe County Department of Water Resources.
November 2006



Department of Water Resources
Engineering Division
Washoe County
Nevada

4930 Energy Way
Reno, Nevada 89502
(775) 954-4600



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APPENDIX A

Discharge Locations

Discharge Locations
South Truckee Meadows Effluent Reuse Area
Washoe County Department of Water Resources

1 of 3

Customer Name	Number	Street	Site Use	Estimated Annual Use (acre feet)
9585 Prototype Ct LLC	9585	Prototype Ct.	Commercial	1.3
Advanced Office Interiors	9300	Prototype Dr.	Commercial	0.3
Agtron (Carl Staub)	9395	Double R Blvd.	Commercial	0.4
Apartment Investments LLC	9350	Double R Blvd	Residential	2.1
Bally Gaming and Systems	950	Sandhill Dr.	Commercial	2.3
Bank of America	710	S. Meadows Pkwy	Commercial	0.8
Banks-Hinckly Partnership	515	Double Eagle Ct.	Commercial	0.2
Bedlan Landscaping	8730	Technology Way	Commercial	0.6
Bobby Page's Dry Cleaners	1090	Sandhill Dr.	Commercial	1.0
CBAR 12 LLC	8790	Double Diamond Pkwy	Commercial	0.6
Centex Homes	9604	Prototype Ct.	Residential	0.5
Centex Homes	9600 Bldg. J	Prototype Ct.	Residential	0.7
CES Machine Products	8880	Double Diamond Pkwy	Commercial	0.4
Charter Communications	9335	Prototype Dr.	Commercial	1.4
City of Reno Parks Div	9555-A	Evergreen St.	Park	3.6
Damonte Booster Pump Lndscp		Double R Blvd	Residential	0.1
Dave's Design Center	1070	Sandhill Dr.	Commercial	0.9
Delta Industries	9550	Gateway Dr.	Commercial	0.3
Dermody Distribution Center	1150	Trademark Dr.	Commercial	1.7
Dermody Family LTD Partnership	9393	Gateway Dr.	Commercial	3.4
Dermody Properties	1190	Trademark Dr.	Commercial	3.0
Dermody SMP 302	1160	Trademark Dr.	Commercial	1.2
Double Diamond Athletic Club	9400	Double R Pkwy	Commercial	1.2
Double Diamond Commercial Center	8975	Double Diamond Pkwy	Commercial	1.3
Double Diamond Homes	1312A	S. Meadows Pkwy	Residential	6.4
Double Diamond LLC		Carat	Park	1.8
Double Diamond LLC		Carat Dr.	Residential	12.7
Double Diamond LLC		Diamond Country / Rio Grande	Residential	1.7
Double Diamond LLC		Evergreen	Residential	4.9
Double Diamond LLC	800	S. Meadows Pkwy	Residential	2.0
Double Diamond LLC		Double Diamond Pkwy W. Side	Residential	2.6
Double Diamond LLC "B"	1272A	S. Meadows Pkwy	Residential	10.2
Double Diamond Master Assoc.		End of Carat	Residential	7.5
Double Diamond Master Assoc.		Diamond Country	Residential	4.3
Double Diamond Master Assoc.		Wilbur May & Fleur de Lis	Residential	12.3
Double Diamond Master Assoc.		428' SW from So Meadows & Dbl Diamond	Residential	2.8
Double Diamond Master Assoc.		Creek @ S. Meadows Pkwy	Residential	0.0
Double Diamond Master Assoc.		Dbl Diamond S of Dbl Diamond Pkwy #1 DDLI	Residential	3.8
Double Diamond Master Assoc.		Dbl Diamond S of Dbl Diamond Pkwy #2 DDLI	Residential	2.9
Double Diamond Master Assoc.		Dbl Diamond S of Dbl Diamond Pkwy #3 DDLI	Residential	6.0
Double Diamond Master Assoc.		Double Diamond at Wilbur May	Residential	11.3
Double Diamond Master Assoc.		Double Diamond past Gold Arrow	Residential	2.4
Double Diamond Master Assoc.		Double Diamond past Gold Arrow	Residential	2.5
Double Diamond Master Assoc.		Gold Arrow & Double Diamond	Residential	0.9
Double Diamond Master Assoc.		S. Dbl Diamond @ Dbl R	Residential	10.9
Double Diamond Master Assoc.		S. Meadows 300' E. of Dbl Diamond	Residential	14.4
Double Diamond Master Assoc.		Wilbur May & Glen Cove	Residential	0.0
Double Diamond Professional Center	9424	Double R Blvd.	Commercial	2.0
Double Diamond Ranch		Wilbur May & Double Diamond	Residential	5.5
Double Diamond Town Center	465	S. Meadows Pkwy	Commercial	0.8
DP Operating Part. (Alcon Labs)	1175	Trademark Dr.	Commercial	6.5
DP Operating Part. (SM 339)	1170	Trademark Dr.	Commercial	6.4
DP operating Partnership	1195	Trademark Dr.	Commercial	2.9
Edward Jelich, Trustees	555	Double Eagle Ct.	Commercial	0.5
Edward Jelich, Trustees	575	Double Eagle Ct.	Commercial	0.8
Ergonomic Logistics	9370	Gateway Dr.	Commercial	2.8
Extended Stay America	9795	Gateway Dr.	Commercial	1.9
French's Day Care (Blue Kangaroo)	780	Trademark Dr.	Commercial	1.7
Gal Sal Company	9210	Prototype Dr.	Commercial	2.6
Game Tech	900	Sandhill Dr.	Commercial	1.2
Gateway Junction	500	S. Meadows Pkwy	Commercial	0.1
Gateway Park Assoc - Saturday Ltd.	9645	Gateway Dr.	Commercial	0.3
Gizmo Planetary Communications	1000	Sandhill Dr.	Commercial	3.4
Glenmore Invstmnt Tr. c/o Killian Co.	9410	Prototype Dr.	Commercial	0.9
Good Star Foods, Inc.	9310	Prototype Dr.	Commercial	0.1

Discharge Locations
South Truckee Meadows Effluent Reuse Area
Washoe County Department of Water Resources

2 of 3

Customer Name	Number	Street	Site Use	Estimated Annual Use (acre feet)
Gyford Products	891	Trademark Dr.	Commercial	0.1
Hagan Electronics	9290	Prototype Dr.	Commercial	0.4
Hampton Inn & Suites	10599	Professional Cir	Commercial	3.7
IGT	9295	Prototype Dr.	Commercial	2.1
Incline Capital Gr. (Park Center East)	9850	Double R Blvd.	Commercial	1.7
Incline Capital Gr. (Park Center West)	9805	Double R Blvd.	Commercial	2.8
Inter-tel Inc.	855	Trademark Dr.	Commercial	3.9
Kids R Kids	9410	Double Diamond Pkwy	Commercial	0.6
Lake Valley Prop, LLC	8950	Double Diamond Pkwy	Commercial	9.5
Las Cal Corp DBA Taco Bell	736	S. Meadows Pkwy	Commercial	0.1
Laxalt & Nomura Bldg Company LLC	9600	Gateway Dr	Commercial	0.6
Magnolia Commons LLC	9333	Double R Blvd	Commercial	7.3
Magnolia Design & Const.	595	Double Eagle Ct.	Commercial	1.1
Magnolia Design & Const.	9785	Gateway Dr.	Commercial	0.9
Magnolia Double R I, LLC	730	Sandhill Dr.	Commercial	1.7
Mariotts Residence Inn	9845	Gateway Dr.	Commercial	1.9
McDonald's of So. Meadows Pkwy	735	S. Meadows Pkwy	Commercial	0.6
McPherson's Art Supply	8770	Technology Way	Commercial	1.5
Memec / Atlas	795	Trademark Dr.	Commercial	2.7
Meridian Gold Company	9670	Gateway Dr.	Commercial	1.8
Metcalf Builders	9480	Double Diamond Pkwy	Commercial	3.8
Metric Assoc.	9425	Double R Blvd.	Commercial	0.5
MFT Building c/o RPL	9650	Gateway Dr.	Commercial	1.2
MLSG Commercial Bldg.	9590	Prototype Dr.	Commercial	0.6
Motor Cargo	8900	Terabyte Ct.	Commercial	2.7
Mountain High Investments LLC	590	Double Eagle Ct.	Commercial	0.2
Oak Harbor Freight	8960	Terabyte Ct.	Commercial	4.2
Office Investments Inc.	8600	Technology Way	Commercial	1.7
Panattoni Construction	10509	Professional Cir	Commercial	4.5
Panattoni Construction	10615	Professional Cir	Commercial	1.4
Peninsula Floors	750	Trademark Dr.	Commercial	0.6
Pevco	9240	Prototype Dr.	Commercial	0.7
Pfizer Inc.	1025	Sandhill Dr.	Commercial	4.3
Prototype Ct. Maintenance Assoc.	9500	Prototype Dr.	Commercial	0.8
R.V.W. Development LLC	8690	Technology Way	Commercial	0.4
Rahives & Rahives, Inc.	9855	Double R Blvd.	Commercial	0.1
Rahives & Rahives, Inc.	9895	Double R Blvd.	Commercial	1.9
Rahives & Rahives, Inc.	9790	Gateway Dr.	Commercial	1.6
Reno Investments	705	Trademark Dr.	Commercial	0.7
Reno Tahoe Tech Center Maintenance Association	10315	Professional Cir	Commercial	10.2
Reno Typographers	9580	Prototype Ct.	Commercial	0.2
Reynen & Bardis	1798-A	Big Country Rd	Residential	0.0
Reynen & Bardis		So. Meadows & Wilber May	Residential	12.1
Reynen & Bardis	7920-A	Wilbur May Pkwy	Residential	1.5
Reynen & Bardis		Wilbur May Pkwy & Camaraderie	Residential	11.2
Robert Rothe	9390	Gateway Dr.	Commercial	3.0
RTTC Maintenance Association	10305	Professional Cir	Commercial	2.4
Sandhill Investors LLC	980	Sandhill Dr.	Commercial	0.5
Security Bank	9990	Double R Blvd	Commercial	1.6
Serene Plaza	770A	S. Meadows Pkwy	Commercial	4.8
Server Tech	1040	Sandhill Dr.	Commercial	0.9
Sierra Gold Bar	680	S. Meadows Pkwy	Commercial	0.2
Sierra Vista Office Campus Maintenance Association	10385-A	Double R Blvd.	Commercial	10.8
SMP 302 Trademark Dr. as "V"	1170	Trademark Dr.	Commercial	2.4
Snow Creek LLC	9480	Gateway Dr.	Commercial	1.0
Solecon Laboratories Inc.	770	Trademark Dr.	Commercial	0.2
Somar International	9610	Prototype Cr.	Commercial	0.3
SoMProp	10351-A	Double R Blvd	Commercial	10.7
SoMProp	10601-A	Double R Blvd	Commercial	8.8
SoMProp	11101-A	Double R Blvd	Commercial	15.4
SoMProp	1100A	Sandhill Dr.	Commercial	16.0
SoMProp	1115A	Sandhill Dr.	Commercial	15.0
SoMProp	710A	Sandhill Dr.	Commercial	2.7
SoMProp	715A	Sandhill Dr.	Commercial	7.6
SoMProp	8765-A	Technology Way	Commercial	2.6

Discharge Locations

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South Truckee Meadows Effluent Reuse Area Washoe County Department of Water Resources

Customer Name	Number	Street	Site Use	Estimated Annual Use (acre feet)
SoMProp Multitenant bldg "B"	9475	Double "R" Blvd.	Commercial	0.9
SoMProp on plan as "AA"		Trademark Dr. north side	Commercial	2.4
SoMProp on plan as "AB"		Trademark Dr. south side	Commercial	6.6
SoMProp on plan as "AC"		Trademark Dr.	Commercial	2.7
SoMProp on plan as "C" or "2"	912A	S. Meadows Pkwy	Residential	6.0
SoMProp on plan as "D" or "1"	712A	S. Meadows Pkwy	Commercial	4.4
SoMProp on plan as "E"	512A	S. Meadows Pkwy	Commercial	5.8
SoMProp on plan as "F"		500A Double Eagle Ct.	Commercial	0.7
SoMProp on plan as "G"	9610A	Gateway Dr.	Commercial	0.9
SoMProp on plan as "H"	9255A	Prototype Dr.	Commercial	11.9
SoMProp on plan as "I"	9412A	Gateway Dr.	Commercial	6.9
SoMProp on plan as "J"	9312A	Gateway Dr.	Commercial	3.6
SoMProp on plan as "K"	10095A	Double R Blvd.	Commercial	5.7
SoMProp on plan as "L"	75A	S. Meadows Pkwy	Commercial	0.7
SoMProp on plan as "M"	9850A	Double R Blvd.	Commercial	11.0
SoMProp on plan as "N"	9605A	Double R Blvd.	Commercial	8.7
SoMProp on plan as "O"	9450A	Double R Blvd.	Commercial	10.3
SoMProp on plan as "P"	9205A	Double R Blvd.	Commercial	4.7
SoMProp on plan as "R"	799A	Trademark Dr.	Commercial	2.7
SoMProp on plan as "S"	792A	Trademark Dr.	Commercial	8.0
SoMProp on plan as "T"	9155A	Double Diamond Pkwy	Commercial	6.8
SoMProp on plan as "U"	9152A	Double Diamond Pkwy	Commercial	9.6
SoMProp on plan as "W.5"	8780A	Technology Way	Commercial	4.0
SoMProp on plan as "X"	9202A	Double R Blvd.	Commercial	2.4
SoMProp on plan as "Y"	8855B	Double Diamond Pkwy	Commercial	12.7
SoMProp on plan as "Z"	8855A	Double Diamond Pkwy	Commercial	6.9
South Meadows Office Invest. LLC	9498	Double R Blvd	Commercial	4.3
Studio Park LLC	9441	Double Diamond Pkwy	Commercial	0.1
Swift Newspapers Inc.	500	Double Eagle Ct.	Commercial	0.9
Tanamera Homes	10461	Double R Blvd	Residential	4.0
Tanamera Homes	10601	Double R Blvd	Residential	7.0
Technology Way Owners	8741	Technology Way	Commercial	2.1
Toblak LLC		1595 Wilbur May Pkwy - Center Creek Park	Park	10.5
Trademark Assoc.	755	Bldg. A Trademark Dr.	Commercial	0.2
Trademark Assoc.	755	Bldg. B Trademark Dr.	Commercial	0.2
Triad Plastics		8800 Terabyte Ct.	Commercial	1.7
Truckee Meadows Construction	9598	Bldg. B Prototype Ct.	Commercial	0.2
Warren Applicators		8850 Double Diamond Pkwy	Commercial	2.2
Washoe County School District		1200 S. Meadows Pkwy	School	66.6
Washoe Health Systems		10101 Double R Blvd.	Commercial	13.0
Wells Fargo		497 S. Meadows Pkwy	Commercial	0.7
Worth Group Developers		9400 Gateway Dr.	Commercial	0.7
Nevada Tri-Partners		10565 Rio Wrangler	Residential	4.7
Nevada Tri-Partners		10565 Rio Wrangler	Residential	8.5
Nevada Tri-Partners	10665 - A1	Rio Wrangler	Residential	3.8
Nevada Tri-Partners	10665 - A2	Rio Wrangler	Residential	7.4
Nevada Tri-Partners		11500 Rio Wrangler	Residential	3.4
Nevada Tri-Partners		11505 Rio Wrangler	Residential	3.5
Nevada Tri-Partners	1800 - A1	Steamboat Pkwy	Residential	3.8
Nevada Tri-Partners	1800 - A2	Steamboat Pkwy	Residential	3.6
Nevada Tri-Partners	2390 - A1	Steamboat Pkwy	Residential	4.7
Nevada Tri-Partners	2390 - A2	Steamboat Pkwy	Residential	6.3
Nevada Tri-Partners	2700 - A1	Steamboat Pkwy	Residential	0.0
Nevada Tri-Partners	2700 - A2	Steamboat Pkwy	Residential	11.4
Nevada Tri-Partners	2700 - A3	Steamboat Pkwy	Residential	10.5
Reynen & Bardis & Double Diamond LLC		Wilbur May Pkwy & Silverthread	Residential	4.4
Washoe County School District	10500	Rio Wrangler Pkwy	School	25.3
WES Construction			Truck Fill	5.1
Number of Connections			188	
Total				781.2

APPENDIX B

Discharge Permit

Nevada Division of Environmental Protection

AUTHORIZATION TO DISCHARGE

In compliance with Chapter 445A of the Nevada Revised Statutes,

Washoe County Department of Water Resources
Utility Services Division
4930 Energy Way
Reno, Nevada 89520-0027

is authorized to discharge treated effluent for irrigation reuse in streetscapes, commercial business park landscape sites, schools, parks and common areas, and the Damonte Ranch truck fill station within:

- #1 South Meadows Business Park/Double Diamond Homes Development streetscapes;
- #2 Damonte Ranch common areas, streetscapes, parks, Damonte Ranch High School;
- #3 Double Diamond common areas, parks, elementary school, and middle school;
- #4 Damonte Ranch truck fill station, construction and dust control uses at approved sites;
- #5 Future reuse sites, subject to Division approval.

Washoe County, Nevada

Latitude: 39° 24 - 27' 00 - 57"N ; Longitude: 119° 27 - 50' 00 - 30"W Ranges

T. 17N., R. 18E., Sections 1,2, 11-14, 22-25;
T. 17N., R. 19E., Sections 1 - 20, 21, 22, 30
T. 17N., R. 20E., Section 4-7, 18.;
T. 18N., R. 18E., Sections 13-15, 22-26, 35, 36
T. 18N., R. 19E., Sections 3, 4, 9, 10, 13
T. 18N., R. 20E., Sections 7 and 8, 17-21, 28-33 MDB&M

These sites are within drinking water protection areas and wellhead protection areas.

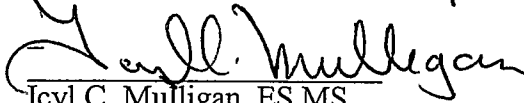
to receiving waters named
groundwaters of the State via effluent percolation

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Part I, II and III hereof.

This permit shall become effective on April 22, 2008.

This permit and the authorization to discharge shall expire at midnight, April 22, 2013.

Signed this 22nd day of April, 2008.


Icyl C. Mulligan, ES MS
Bureau of Water Pollution Control

PART I

Introduction: The permits for the Double Diamond area/South Meadows Business Park reuse sites (NEV96005 - originally issued December 21, 2001) and the reuse sites for Damonte Ranch areas (NEV2003512 - originally issued January 26, 2004) are being combined under permit number NEV96005 with this renewal. The Permittee proposes to continue oversight of effluent irrigation at all sites currently identified, and for future Division approved sites. The permit covers a reuse area which is located east of US Highway 395, and south of the South Truckee Meadows Water Reclamation Facility (NEV40024). Reuse in the permitted area is a combination of drip and spray irrigation. Annual reclaimed water usage for the entire area is estimated to be about 1800 acre-feet per year(AF/YR). Irrigation is mostly seasonal and weather dependent.

Reclaimed water is supplied by the South Truckee Meadows Water Reclamation Facility. This facility provides disinfected, denitrified reclaimed water that meets Category A quality (NAC 445A.276) (Below 10 mg/l N).

I.A. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS AND CONDITIONS

- I.A.1. During the period beginning on the effective date of this permit, and lasting until the permit expires, the Permittee is authorized to discharge reclaimed water supplied by the South Truckee Meadows Water Reclamation Facility for irrigation reuse and for construction and dust control, at the Division approved named areas on the east side of US Highway 395.
- I.A.2. Flow monitoring shall be recorded at the meter vault prior to reuse. Reclaimed water quality shall be in accordance with the limits set forth in NEV40024 for the South Truckee Meadows Water Reclamation Facility.¹

The discharge shall be limited and monitored by the Permittee as specified below:

TABLE I.1

<u>PARAMETERS</u>	<u>EFFLUENT DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	30-Day Average (Seasonal)	Monthly Maximum (seasonal)	Measurement Frequency	Sample Type
Flow, Million Gallons per Month ² (MGM)	Monitor & Report	Monitor & Report	Continuous	Flow meter
Annual Application Volume ³	1800 Acre-Feet/Year		Cumulative	Flow Meter
Total Coliform ¹	2.2 (CFU/MPN)/100 ml	23 (CFU/MPN) 100 ml	Weekly	Discrete

1. Sample results to be obtained from NEV40024 and reported by Permittee.
2. Monthly Maximum based upon highest usage month determined from consumptive use balance + 10 % allowance and in accordance with the Effluent Management Plan.
3. To be submitted with the 4th Quarter DMR.

CFU = Colony Forming Units, MPN = Most Probable Number, ml = Milliliter

I.B. EFFLUENT MANAGEMENT

- I.B.1. The irrigation storage, distribution and ancillary facilities shall be operated in accordance with the two original Effluent Management Plans (EMPs), and the new revisions which must be approved by this Division. The EMPs shall contain the information required to comply with this permit. It is recommended that the

Permittee utilize "WTS-1B: General Criteria for Preparing an Effluent Management Plan" (NDEP 2000), as a guidance to prepare the EMP.

I.B.2. The Permittee shall provide a copy of a brief, but complete and understandable, document describing the possible hazards and proper hygiene of working with and around treated wastewater to all grounds keepers and other affected personnel. Copies shall be included in the EMP.

I.B.3. The Permittee shall calculate the Consumptive Use Balance for each month based upon the parameters listed in Appendix One of WTS-1B. The evaluation of the rates shall be included in the EMP.

The annual application volume limit and monthly maximum limit shall be determined from this balance. If the actual annual application volume or monthly maximum volume exceeds the calculated annual application limit or monthly maximum limit, the Permittee shall prepare a report which includes an evaluation of the application rates in the EMP, an explanation of conditions (overseeding, reseeding, extraordinary weather conditons, etc.) which lead to the exceedance, and any planned changes the Permittee deems necessary. This evaluation shall be submitted with the fourth quarter Discharge Monitoring Report (DMR).

I.B.4 The EMP shall detail the procedures for collecting monitoring samples (if applicable) required by this permit.

I.B.5. The effluent irrigation shall not cause objectionable odors on or off the site.

I.B.6. The irrigation systems and ancillaries shall be constructed and operated in accordance with plans approved by the Division. All plans must be approved by the Division prior to the start of construction. All changes to the approved plans must be approved by the Division.

I.B.7. Irrigated areas shall be posted with conspicuous warning signs clearly stating that reclaimed water is utilized and to avoid contact. Ancillary equipment used for effluent shall be clearly marked to indicate use with effluent.

I.B.8. Any drinking water fountains at parks and schools and other facilities shall be covered during effluent irrigation.

I.B.9. Irrigation of the subject areas shall be performed in such a manner as to reduce standing water to a minimum and to prevent run-off. Overspray shall be prevented as much as practicable.

I.B.10. The Permittee shall provide documentation to the Division that the local water purveyor and local health agency have been notified of the Permittee's intent to use effluent at these facilities. The document shall describe the plan for complying with the cross-connection control requirements of the local water purveyor and County health agency. This documentation shall be received prior to effluent re-use at all new and existing sites as detailed in the schedule of compliance. **No potential for cross-connection shall exist between potable and reuse systems.**

I.B.11. All terms and conditions stated herein shall not supercede the requirements of the Nevada Division of Water Resources.

I.C. GENERAL CONDITIONS

- I.C.1. There shall be no discharge of substances that would cause a violation of water quality standards of the State of Nevada.
- I.C.2. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting **July 1, 2008** and every year thereafter until the permit is terminated.
- I.C.3. The Discharge Monitoring Reports (DMRs) must be signed by the facility's highest ranking officer. The first DMR submitted under this permit must include the written designation of the officer (required by Part III A.2) as the authorized representative to sign the DMRs. If the officer in responsible charge changes, a new designation letter must be submitted.

I.D. SCHEDULE OF COMPLIANCE

- I.D.1. The Permittee shall implement and comply with the provisions of the following schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance.
 - a. The Permittee shall achieve compliance with the effluent flow monitoring requirements upon issuance of the permit.
 - b. A revised Effluent Management Plan (EMP) shall be submitted to the Division within 90 days of permit issuance and submitted to the Compliance Coordinator at the address listed below.
 - c. **For continued effluent reuse**, the Permittee shall submit the cross-connection control documentation as required by Part I.B.10. This documentation shall be submitted annually, due with the 4th Quarter Report. The cross-connection control inspections, including the annual shut down tests for the permitted cluster sites shall be conducted by an AWWA Certified Cross-Connection Control Specialist in conjunction with the Washoe County's Utility Services Department staff.

I.E. MONITORING AND REPORTING

- I.E.1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. Analysis shall be performed by a State of Nevada certified laboratory. Results from this lab must accompany the Discharge Monitoring Report.
- I.E.2. **Reporting**
 - a. Annual Report - The fourth quarter report shall contain a plot of the date (x-axis) versus concentration (y-axis) for each analyzed constituent. The plot shall include data from the preceding five years, if available. Any data point from the current year that is greater than the limits in Part I.A. must be explained by a narrative.

- b. The Fourth Quarter Report shall demonstrate that the facility has maintained compliance with the annual application volume. If the annual application volume exceeds the limit listed in Table I.1, an evaluation shall be submitted with the fourth quarter report in accordance with the requirements listed in permit condition I.B.3.
- c. The Fourth Quarter Report shall contain all data required to be collected annually.
- d. Quarterly Report - Monitoring results obtained during the previous three (3) months shall be summarized for each month and reported quarterly on a Discharge Monitoring Report (DMR) Form received in this office no later than the 28th day of the month following the end of each quarter. The first report is due on (July 28, 2008). An original signed copy of these, and all other reports required herein, shall be submitted to the State at the following address:

Division of Environmental Protection
Bureau of Water Pollution Control
ATTN: Compliance Coordinator
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701

If the monthly maximum volume exceeds the limit listed in Table I.1, an evaluation shall be submitted with the fourth quarter report in accordance with the requirements listed in permit condition I.B.3.

I.E.3. Definitions

- a. The "30-day average discharge" means the total discharge during a month divided by the number of samples in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30-day average discharge shall be determined by the summation of all the measured discharges divided by the number of samples during the period when the measurements were made.
- b. The "daily maximum" is the highest measurement during the monitoring period.
- c. The "30-day average concentration", other than for fecal coliform bacteria, means the arithmetic mean of measurements made during a month. The "30-day average concentration" for fecal coliform bacteria means the geometric mean of measurements made during a month. The geometric mean is the " n^{th} " root of the product of " n " numbers. Geometric mean calculations where there are non-detect results for fecal coliform shall use one-half the detection limit as the value for the non-detect results.
- d. A "discrete" sample means any individual sample collected in less than 15 minutes.
- e. For flow-rate measurements, a "composite" sample means the arithmetic mean of no fewer than six individual measurements taken at equal time intervals for 24 hours, or for the duration of discharge, whichever is shorter.

I.E.4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations (40 CFR, Part 136) published pursuant to Section 304(h) of the Act, under which such procedures may be required unless other procedures are approved by the Division.

I.E.5. Recording the Results

For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record and maintain at the facility, the following information:

- a. the exact place, date, and time of sampling;
- b. the dates the analyses were performed;
- c. the person(s) who performed the analyses;
- d. the analytical techniques or methods used; and
- e. the results of all required analyses.

I.E.6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

I.E.7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if required by the Administrator.

I.E.8. Modification of Monitoring Frequency and Sample Type

After considering monitoring data, stream flow, discharge flow, and receiving water conditions, the Division, may for just cause, modify the monitoring frequency and/or sample type by issuing an order to the Permittee.

I.E.9. All laboratory analysis conducted in accordance with this discharge permit must have detection at or below the permit limits.

PART II

II.A. MANAGEMENT REQUIREMENTS

II.A.1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, or treatment modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Any changes to the permitted treatment facility must comply with Nevada Administrative Code NAC 445A.283 to 445A.285. Pursuant to NAC 445A.263, the permit may be modified to specify and limit any pollutants not previously limited.

II.A.2. Facilities Operation

The Permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities, collection systems or pump stations installed or used by the Permittee to achieve compliance with the terms and conditions of this permit.

II.A.3. Adverse Impact

The Permittee shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

II.A.4. Noncompliance, Unauthorized Discharge, Bypassing and Upset

- a. Any diversion, bypass, spill, overflow or discharge of treated or untreated wastewater from wastewater treatment, conveyance facilities, or holding ponds under the control of the Permittee is prohibited except as authorized by this permit. In the event the Permittee has knowledge that a diversion, bypass, spill, overflow or discharge not authorized by this permit is probable, the Permittee shall notify the Division immediately.
- b. The Permittee shall notify the Division within twenty-four (24) hours of any diversion, bypass, spill, upset, overflow or release of treated or untreated discharge other than that which is authorized by the permit. A written report shall be submitted to the Administrator within five (5) days of diversion, bypass, spill, overflow, upset, or discharge, detailing the entire incident including:
 - (1) time and date of discharge;
 - (2) exact location and estimated amount of discharge;
 - (3) flow path and any bodies of water which the discharge reached;
 - (4) the specific cause of the discharge; and
 - (5) the preventive and/or corrective actions taken.
- c. The following shall be included as information which must be reported within 24 hours: any unanticipated bypass which exceeds any effluent limitation in the permit; any upset which exceeds any effluent limitation in the permit; and violation of a limitation for any toxic pollutant or any pollutant identified as the method to control a toxic pollutant.
- d. The Permittee shall report all instances of noncompliance not reported under Part II.A.4.b. at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.A.4.b.
- e. An "upset" means an incident in which there is unintentional and temporary noncompliance with the permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- f. In selecting the appropriate enforcement option, the Division shall consider whether or not the noncompliance was the result of an upset.
- g. The burden of proof is on the Permittee to establish that an upset occurred.

In order to establish that an upset occurred, the Permittee must provide, in addition to the information required under paragraph II.A.4.b. above, properly signed contemporaneous logs or other documentary evidence that:

- (1) The facility was at the time being properly operated as required in paragraph II.A.2. above; and
- (2) All reasonable steps were taken to minimize adverse impacts as required by paragraph II.A.3. above.

II.A.5. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollution from such materials from entering any navigable waters.

II.B. RESPONSIBILITIES

II.B.1. Right of Entry

The Permittee shall allow the Administrator and/or his authorized representatives, upon the presentation of credentials:

- a. to enter upon the Permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. at reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to perform any necessary sampling to determine compliance with this permit or to sample any discharge.

II.B.2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the Permittee shall notify the succeeding owner or controller of the existence of this permit, by letter, a copy of which shall be forwarded to the Administrator. ALL transfer of permits shall be approved by the Division.

II.B.3. Availability of Reports

Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Division. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

Part II.B.

II.B.4. Furnishing False Information and Tampering with Monitoring Devices

Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than \$10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, provided pursuant to NRS 445A.300 to 445A.730, inclusive.

II.B.5. Penalty for Violation of Permit Conditions

Nevada Revised Statutes NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.705.

II.B.6. Permit Modification, Suspension or Revocation

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. violation of any terms or conditions of this permit;
- b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

II.B.7. Toxic Pollutants

Notwithstanding Part II.B.6. above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

II.B.8. Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal, State, or local laws, regulations, or ordinances.

II.B.9. Property Rights

The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

II.B.10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART III

III.A. OTHER REQUIREMENTS

III.A.1. Reapplication

If the Permittee desires to continue to discharge, he shall reapply not later than 180 days before this permit expires on the application forms then in use. The Permittee shall submit the reapplication fee required by NAC 445A.232 with the application.

III.A.2. Signatures required on application and reporting forms.

- a. Application and reporting forms submitted to the department must be signed by one of the following:
 - (i) A principal executive officer of the corporation (of at least the level of Vice President) or his/her authorized representative who is responsible for the overall operation of the facility from which the discharge described in the application or reporting form originates;
 - (ii) A general partner of the partnership;
 - (iii) The proprietor of the sole proprietorship; or
 - (iv) A principal executive officer, ranking elected official or other authorized employee of the municipal, state, or other public facility.
- b. Each application must contain a certification by the person signing the application that he is familiar with the information provided, that to the best of his knowledge and belief the information is complete and accurate and that he has the authority to sign and execute the application.
- c. **Changes to Authorization.** If an authorization under paragraph b. of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph b. of this section must be submitted to the Division prior to or together with any reports, information, or applications to be signed by an authorized representative.

III.A.3. Holding Pond Conditions

If any effluent is placed in ponds, such ponds shall be located, operated and constructed so as to:

- a. contain with no discharge the once-in-a-twenty-five year 24 hour storm at said location;

Part III.A.3.

- b. withstand the once-in-one-hundred year flood of said location without physical damages to berms and other pond structures;
- c. prevent escape of wastewater by leakage other than as authorized by this permit; and
- d. maintain freeboard at a minimum of 2 feet, unless otherwise approved by the Division.

APPENDIX C

Irrigation Warning Sign

TREATED WASTEWATER EFFLUENT
USED FOR IRRIGATION

DO NOT DRINK

AVOID CONTACT

APPENDIX D

Sample Discharge Monitoring Report

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NDPES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS
(Include Facility Name/Location if different)

NAME: Washoe County Department of Water Resources-USD

NEV96005			
PERMIT NUMBER		DISCHARGE NUMBER	

ADDRESS: 4930 Energy Way
Reno, NV 89502

MONITORING PERIOD			
YEAR	MO	DAY	TO

FACILITY: South Truckee Meadows WRF
LOCATION: South Meadows Effluent Reuse Area

NOTE: Read instructions before completing this form.

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			No. Ex.	Frequency of Analysis	Sample Type
	AVERAGE	MAXIMUM	Units	MINIMUM	AVERAGE			
EFFLUENT FLOW (Monthly)	Sample Measurement		MGM/ MGD				30/30	
	Permit Requirement	M&R					CONTINUOUS	METER
FECAL COLIFORM	Sample Measurement			<1	<1	0	4/30	
	Permit Requirement				23		WEEKLY	DISCRETE
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							
Name/Title Principal Exec. Officer			I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information. I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See 18 U.S.C. § 1001 and 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)			TELEPHONE NUMBER (775) 954-4600		DATE
TYPED OR PRINTED			Signature of Principal Executive Officer or Authorized Agent					YR/MO/DAY





COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

APPENDIX E




Standard Irrigation Plans

SYM.	QNT.	BOTANICAL NAME/Common Name	MIN. SIZE	SPACING
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








DECIDUOUS TREES

13		<i>Acer rubrum</i> Bark/Red/Norfolk Maple	10' Cal.	15' o.e.
12		<i>Gladiolus</i> White/Green/Black/Green/Black	25' Cal.	30' o.e.
12		<i>Pinus strobus</i> White/Green/Black/Green/Black	25' Cal.	29' o.e.
14		<i>Pyrus calleryana</i> Red/Green/Red/Green/Red	25' Cal.	55' o.e.

EVERGREEN TREES

9		<i>Cupressus goepertii</i> Leyland/Leyland Cypress	10' Ma. Ht.	29' o.e.
84		<i>Pinus nigra</i> Austrian Pine	10' Ma. Ht.	29' o.e.
9		<i>Sequoia</i> Giant/Redwood/Sequoia	10' Ma. Ht.	55' o.e.

SHRUBS

12		<i>Acer glabrum</i> Tree/Maple	5 gal.	8' o.e.
59		<i>Berberis</i> Barberry	5 gal.	5' o.e.
64		<i>Cornus sericea</i> Dogwood	5 gal.	6' o.e.
8		<i>Cupressus arizonica</i> Blue/Green/Black/Green/Black	15 gal.	5' o.e.
19		<i>Forsythia</i> Yellow/Green/Black/Green/Black	5 gal.	6' o.e.
200		<i>Juniperus horizontalis</i> Blue/Green/Black/Green/Black	5 gal.	6' o.e.
14		<i>Mahonia</i> Yellow/Green/Black/Green/Black	10 gal.	8' o.e.
506		<i>Thuja occidentalis</i> Green/Black/Green/Black	1 gal.	2' o.e.
11		<i>Thuja occidentalis</i> Green/Black/Green/Black	1 gal.	4' o.e.
102		<i>Thuja occidentalis</i> Green/Black/Green/Black	5 gal.	4' o.e.
70		<i>Thuja occidentalis</i> Green/Black/Green/Black	2 gal.	2' o.e.
87		<i>Thuja occidentalis</i> Green/Black/Green/Black		
66		<i>Thuja occidentalis</i> Green/Black/Green/Black		

15345 s.f. Kentucky Blue Grass 'Daisy' Blend (Western Turf)
14055 Lf. Black Edge-Knight Professional Landscapes Edging

TOTAL SITE AREA FOR PHASE 4: 134,550 SF (3.0 ACRES)
ZONING: RUD

REQUIRED LANDSCAPE AREA: 26,940 SF (20% OF PHASE 4 SITE AREA)

RECLAIMED SIGNAGE SHALL BE POSTED, IN OBVIOUS LOCATIONS, AT THE ENTRY TO ALL PROPERTIES, LANDSCAPE ISLANDS, MEDIANS, AND OTHER USE AREAS. SIGNAGE FOR LANE FOR ROADWAY LANDSCAPING SHALL BE INTERSPERSED WITH THE RECLAIMED SIGNAGE. HOWEVER, NULL IN CASE EXCEED 800' SIGNS SHALL HAVE THE FOLLOWING: NO DRINKING WATER, NO STAFF/CLIENT FOR IRRIGATION, DO NOT DRINK, AVOID CONTACT, NO IRM-AM. SIGN SIZE SHALL BE 8' X 12', LARGER SIGNS WILL BE REQUIRED AT PRIMARY ACCESS POINTS.

CONTRACTOR SHALL VERIFY SIGN LOCATIONS WITH
WASHOE COUNTY UTILITIES SERVICE DIVISION.



0 20' 40' 60'

Scale 1" = 20'

Scale 1" = 20'

14 sheet

54

MATCHLINE SEE SHEET L-5

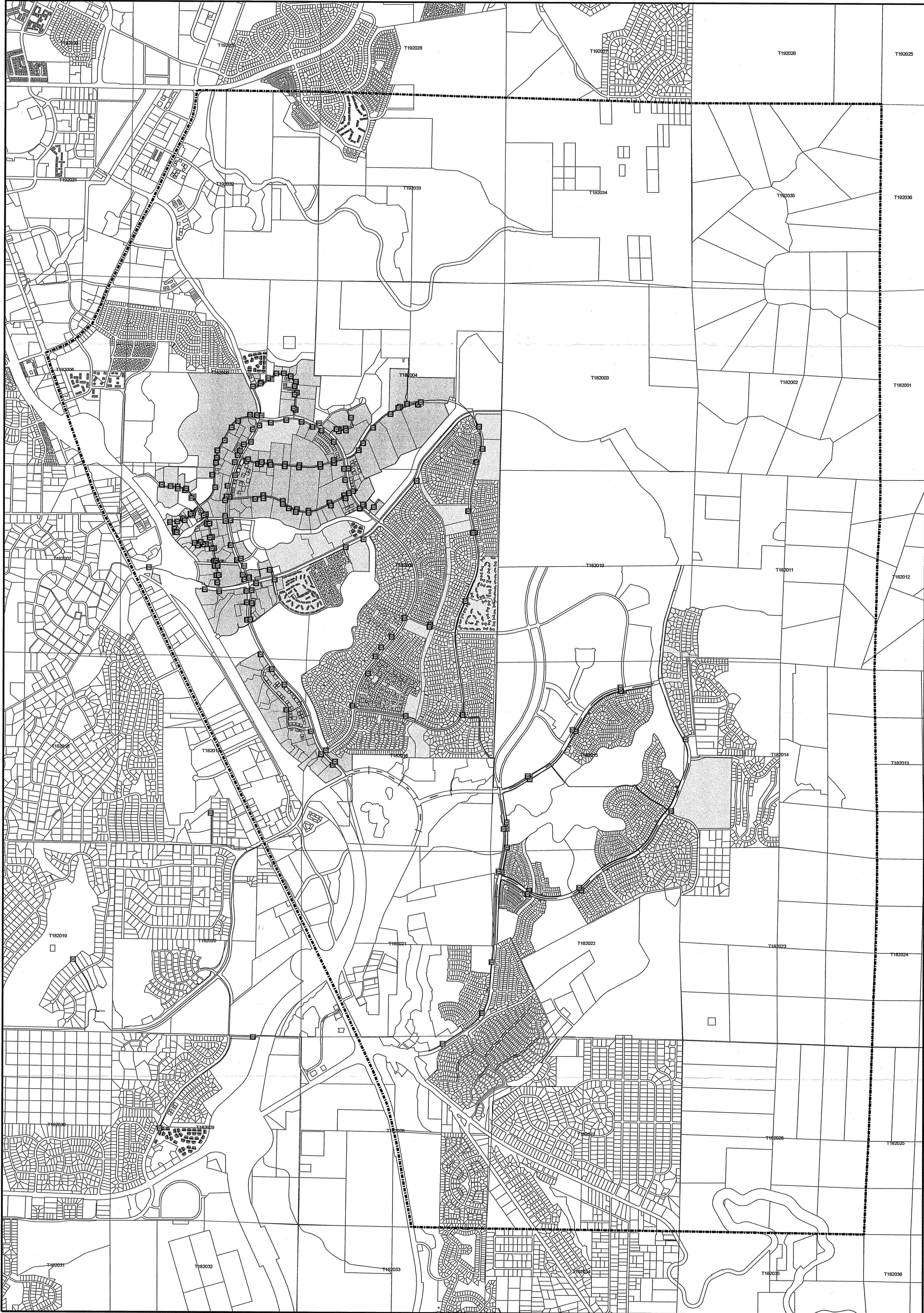
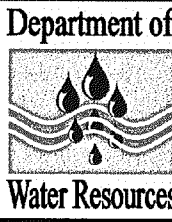


Figure 2
South Truckee Meadows Effluent Reuse Area
Treated Effluent Discharge Locations

- Roadside Landscaping Sites
- Commercial Landscaping Sites
- Residential, Park and School Landscaping Sites
- Reclaimed Meter
- Reclaimed Main
- Reuse Area Boundary
- Township/Range



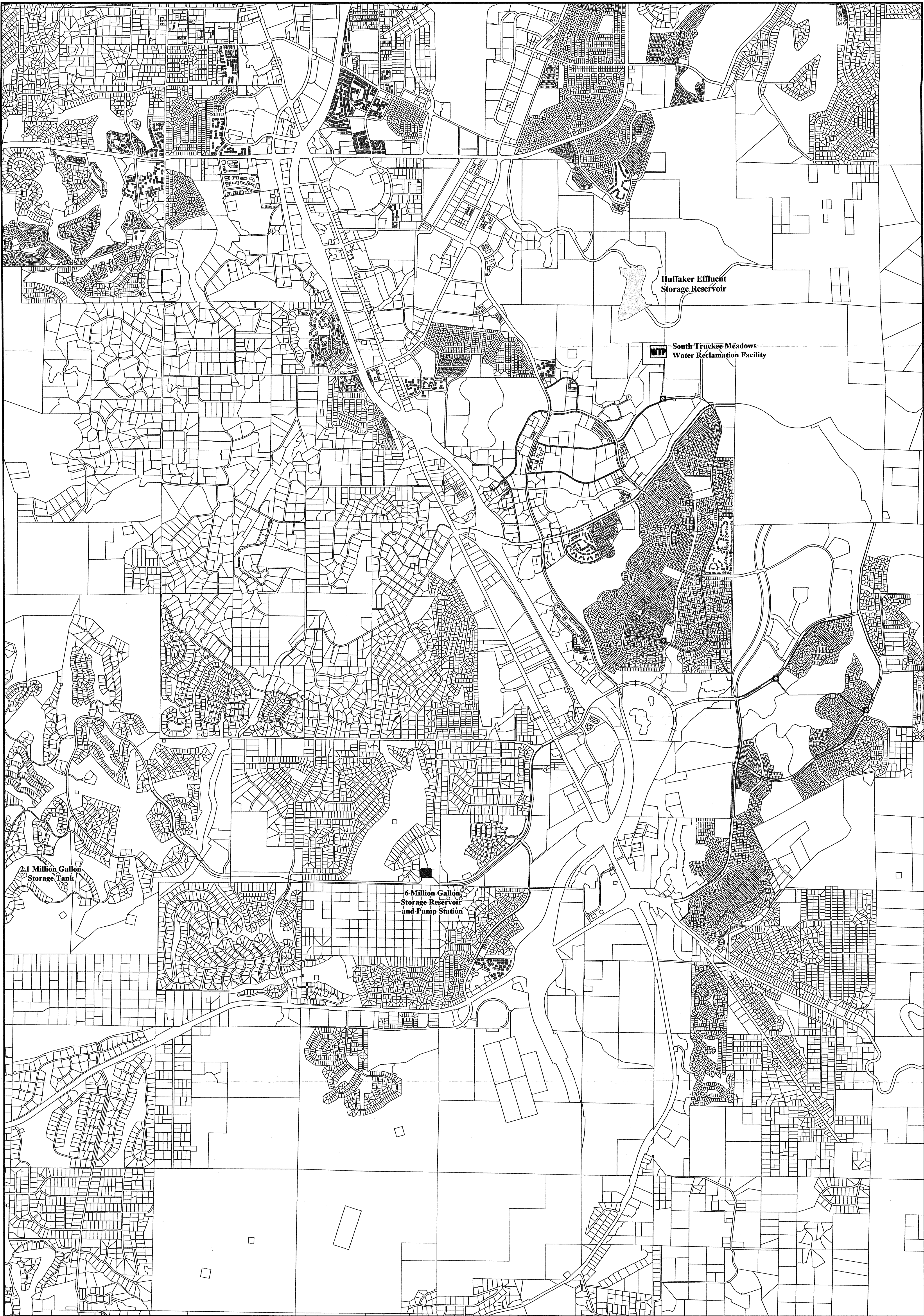
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November 2006



Department of Water Resources
Engineering Division
Washoe County
Nevada



4930 Energy Way
Reno, Nevada 89502
(775) 954-4600
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Huffaker Effluent
Storage Reservoir

WTP South Truckee Meadows
Water Reclamation Facility

2.1 Million Gallon
Storage Tank

6 Million Gallon
Storage Reservoir
and Pump Station






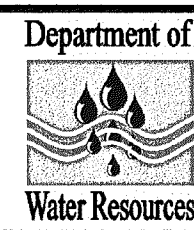
-  PRV
-  Reclaimed Tank
-  Reclaimed Storage Reservoir
-  Reclaimed Main
-  Reservoir

Figure 3
South Truckee Meadows Effluent Reuse Area
Reclaimed System

0 0.1 0.2 0.4 0.6 0.8 1 Miles



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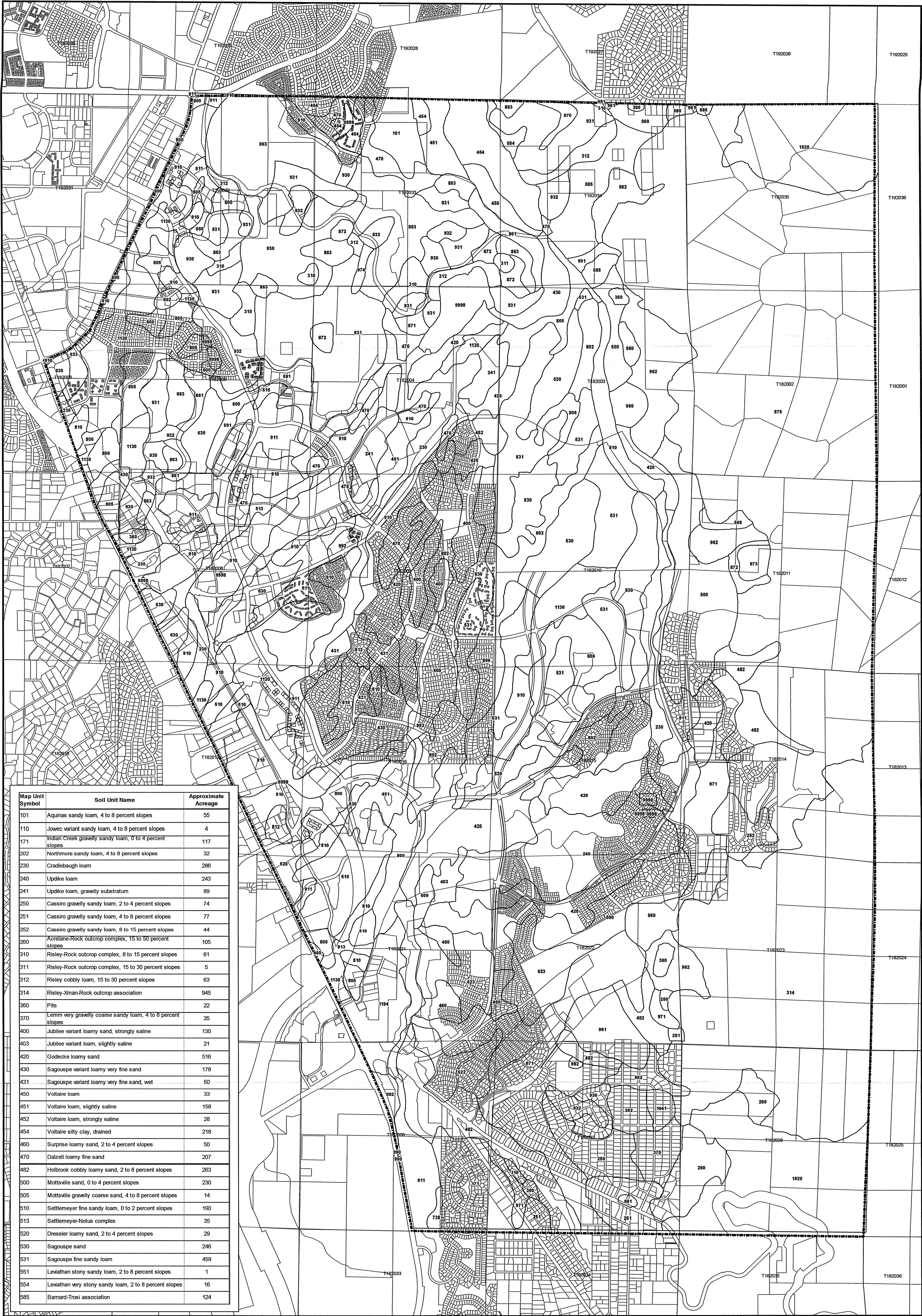


Figure 4
South Truckee Meadows Effluent
Reuse Area and Soil Types

Reuse Area Boundary
Soil Type Boundaries
(With Soil Type Number)
Township/Range

0 0.1 0.2 0.4 0.6 0.8 Miles

Department of Water Resources

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