# FACTSHEET
## (pursuant to NAC 445A.236)

**Permittee Name:** CITY OF WELLS
PO BOX 366
WELLS, NV - 89835

**Permit Number:** NS0020015

**Location:** CITY OF WELLS WASTEWATER TREATMENT FACILITY, ELKO
METROPOLIS ROAD, WELLS, NV - 89835
LATITUDE: 41.133333, LONGITUDE: -115.000010
TOWNSHIP: 38N, RANGE: 62E, SECTION: 31 & 32

| Outfall / Well Num | Outfall / Well Name | Location Type | Well Log Num | Outfall City | Outfall State | Outfall Zip | Outfall County | Latitude | Longitude | Receiving Water |
|---|---|---|---|---|---|---|---|---|---|---|
| 001 | INFLUENT | Influent Structure | | WELLS | NV | 89835 | ELKO | 41.133333 | -115.000010 | GROUNDWATER |
| 002 | POND 2 | External Outfall | | WELLS | NV | 89835 | ELKO | 41.130465 | -114.992799 | GROUNDWATER |
| 003 | IRRIGATION | Land Application Site | | WELLS | NV | 89835 | ELKO | 41.134528 | -115.009333 | GROUNDWATER |
| MW1 | MW-1 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.130194 | -114.991389 | GROUNDWATER |
| MW2 | MW-2 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.131583 | -114.993306 | GROUNDWATER |
| MW3 | MW-3 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.133806 | -114.999444 | GROUNDWATER |
| MW4 | MW-4 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.134944 | -115.002361 | GROUNDWATER |
| MW5 | MW-5 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.136444 | -115.002889 | GROUNDWATER |
| MW6 | MW-6 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.137639 | -115.001472 | GROUNDWATER |
| MW9 | MW-9 | Monitoring Well | | WELLS | NV | 89835 | ELKO | 41.136028 | -115.009083 | GROUNDWATER |

### General:

The City of Wells Wastewater Treatment Facility (CWWTF) and irrigation site is located approximately two miles northwest of Wells in Elko County, Nevada. The CWWTF is designed to treat domestic sewage in compliance with secondary treatment standards. Wastewater generated in Wells is collected by gravity and discharged to the CWWTF headworks, passing through a comminutor, bar screen, Parshall flume, and sonic flow meter. Flows are directed via an inlet structure to a 2.4-acre aerated lined primary facultative pond for initial treatment. Effluent flows by gravity to a 2.4-acre lined secondary facultative pond for further treatment before being discharged via an overflow weir structure and pipeline to two 32 million gallon storage reservoirs that provide winter storage for effluent. The stored effluent is used for spray irrigation (applied by center pivot spray irrigation systems) of two 43-acre alfalfa fields during warm weather months (typically April through October).

### Discharge Characteristics:

Discharge occurs seasonally between April and October of each year and consists of secondary treated effluent with the following average 5-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), total nitrogen (TN), and fecal coliform concentrations, monitored between the first quarter of 2010 and the first quarter of 2015:

CBOD5: 41 mg/L
TSS: 62 mg/L

TN: 21.4 mg/L
Fecal coliform: 212.6 CFU/100mL

**Receiving Water:**

The receiving water is groundwater of the State. The groundwater is monitored for depth below ground surface (BGS), total dissolved solids (TDS), chlorides, and TN via seven monitoring wells. Average values for each of the parameters monitored between the first quarter of 2010 and the first quarter of 2015 are listed below.

Monitoring Well 1
Depth BGS: 8.6 feet
TDS: 1500 mg/L
Chlorides: 317.5 mg/L
TN: 0.2 mg/L

Monitoring Well 2
Depth BGS: 8.1 feet
TDS: 1020 mg/L
Chlorides: 117.5 mg/L
TN: <0.5 mg/L

Monitoring Well 3
Depth BGS: 23 feet
TDS: 827.1 mg/L
Chlorides: 152.4 mg/L
TN: 4.5 mg/L

Monitoring Well 4
Depth BGS: 22.4 feet
TDS: 770 mg/L
Chlorides: 202.5 mg/L
TN: 1.6 mg/L

Monitoring Well 5
Depth BGS: 22 feet
TDS: 1171.4 mg/L
Chlorides: 234.8 mg/L
TN: 1.9 mg/L

Monitoring Well 6
Depth BGS: 7.8 feet
TDS: 2000 mg/L
Chlorides: 175 mg/L
TN: 1.0 mg/L

Monitoring Well 9
Depth BGS: 32.9 feet
TDS: 2100 mg/L
Chlorides: 482.5 mg/L
TN: 3.8 mg/L

**Summary of Changes From Previous Permit:**

Due to the new naming conventions at the Nevada Division of Environmental Protection (NDEP), Bureau of Water Pollution Control, the permit number has been changed from NEV20015 to NS0020015. This

change does not reflect a change in the type of permit being issued.

**Proposed Effluent Limitations:**
The discharge shall be limited and monitored by the Permittee as specified below:

## WWTP Discharge Limitations Table for Sample Location 001 (Influent) To Be Reported Monthly[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Flow rate | Daily Maximum | <= 0.580 Million Gallons per Day (Mgal/d) | | Raw Sewage Influent | 001 | Continuous | METER |
| Flow rate | 30 Day Average | <= 0.320 Million Gallons per Day (Mgal/d) | | Raw Sewage Influent | 001 | Continuous | METER |

Notes (WWTP Discharge Limitations Table):

1. Samples shall be taken at the facility headworks.

## WWTP Discharge Limitations Table for Sample Location 002 (Pond 2) To Be Reported Monthly[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| BOD, carbonaceous, 05 day, 20 C | Daily Maximum | | <= 45 Milligrams per Liter (mg/L) | Effluent Gross | 002 | Monthly | COMPOS |
| BOD, carbonaceous, 05 day, 20 C | 30 Day Average | | <= 30 Milligrams per Liter (mg/L) | Effluent Gross | 002 | Monthly | COMPOS |
| Solids, total suspended | Daily Maximum | | <= 90 Milligrams per Liter (mg/L) | Effluent Gross | 002 | Monthly | COMPOS |

Notes (WWTP Discharge Limitations Table):

1. Samples shall be taken at the discharge of the secondary facultative pond.

**WWTP Discharge Limitations Table for Sample Location 003 (Irrigation) To Be Reported Monthly[1]**

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Flow rate | Daily Maximum | M&R Million Gallons per Day (Mgal/d) | | Prior to Irrigation | 003 | Monthly | METER |
| Flow rate | 30 Day Average | M&R Million Gallons per Day (Mgal/d) | | Prior to Irrigation | 003 | Monthly | METER |
| Coliform, fecal, colony forming units | Daily Maximum | | <= 400 Colony Forming Units per 100ml T (CFU/100mL) | Prior to Irrigation | 003 | Monthly | DISCRT |
| Nitrogen, total | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Irrigation | 003 | Monthly | DISCRT |
| Nitrogen, total | 30 Day Average | | M&R Milligrams per Liter (mg/L) | Prior to Irrigation | 003 | Monthly | DISCRT |

Notes (WWTP Discharge Limitations Table):

1. Samples shall be taken in the irrigation line or at the irrigation pump, after discharge from the storage ponds and prior to land application/reuse by spray irrigation.

## WWTP Discharge Limitations Table for Sample Location 003 (Irrigation) To Be Reported Annually

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Nitrogen, total | Total[3] | M&R Pounds per Year (lb/yr)[4] | | Prior to Reuse | 003 | Annual[2] | CALCTD |
| Nitrogen, total | Total Amount Applied | M&R Pounds per Year (lb/yr)[1] | | Prior to Reuse | 003 | Annual[2] | CALCTD |

Notes (WWTP Discharge Limitations Table):

1. Pounds per acre per year

   Not to exceed the amount required by the plant materials (alfalfa)
2. To be calculated in December of each calendar year and reported annually in the fourth quarter report.
3. Total amount required

   (agricultural uptake rate specified in the Effluent Management Plan: 200 lbs/acre/year for alfalfa)
4. Pounds per acre per year

## Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well) To Be Reported Quarterly

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW1 | Quarterly | VISUAL[1] |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

**Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well) To Be Reported Annually[1]**

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Solids, total dissolved | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Annual | DISCRT |
| Chloride (as Cl) | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Annual | DISCRT |
| Nitrogen, total | Annual Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW1 | Annual | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. To be reported annually in the fourth quarter report.

## Groundwater Monitoring Wells Table for Sample Location Mw2 (Monitoring Well) To Be Reported Quarterly

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW2 | Quarterly | VISUAL[1] |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

**Groundwater Monitoring Wells Table for Sample Location Mw2 (Monitoring Well) To Be Reported Annually[1]**

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Solids, total dissolved | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW2 | Annual | DISCRT |
| Chloride (as Cl) | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW2 | Annual | DISCRT |
| Nitrogen, total | Annual Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW2 | Annual | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. To be reported annually in the fourth quarter report.

**Groundwater Monitoring Wells Table for Sample Location Mw3 (Monitoring Well) To Be Reported Quarterly**

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW3 | Quarterly | VISUAL[1] |
| Solids, total dissolved | Quarterly Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW3 | Quarterly | DISCRT |
| Chloride (as Cl) | Quarterly Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW3 | Quarterly | DISCRT |
| Nitrogen, total | Quarterly Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW3 | Quarterly | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

## Groundwater Monitoring Wells Table for Sample Location Mw4 (Monitoring Well) To Be Reported Quarterly

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW4 | Quarterly | VISUAL[1] |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

**Groundwater Monitoring Wells Table for Sample Location Mw4 (Monitoring Well) To Be Reported Annually[1]**

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Nitrogen, total | Annual Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW4 | Annual | DISCRT |
| Solids, total dissolved | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW4 | Annual | DISCRT |
| Chloride (as Cl) | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW4 | Annual | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. To be reported annually in the fourth quarter report.

**Groundwater Monitoring Wells Table for Sample Location Mw5 (Monitoring Well) To Be Reported Quarterly**

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW5 | Quarterly | VISUAL[1] |
| Solids, total dissolved | Quarterly Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW5 | Quarterly | DISCRT |
| Chloride (as Cl) | Quarterly Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW5 | Quarterly | DISCRT |
| Nitrogen, total | Quarterly Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW5 | Quarterly | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

## Groundwater Monitoring Wells Table for Sample Location Mw6 (Monitoring Well) To Be Reported Quarterly

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW6 | Quarterly | VISUAL[1] |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

**Groundwater Monitoring Wells Table for Sample Location Mw6 (Monitoring Well) To Be Reported Annually[1]**

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Solids, total dissolved | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW6 | Annual | DISCRT |
| Chloride (as Cl) | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW6 | Annual | DISCRT |
| Nitrogen, total | Annual Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW6 | Annual | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. To be reported annually in the fourth quarter report.

## Groundwater Monitoring Wells Table for Sample Location Mw9 (Monitoring Well) To Be Reported Quarterly

| | Discharge Limitations | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Depth to water level ft below landsurface | Quarterly Maximum | M&R Feet (ft) | | Groundwater | MW9 | Quarterly | VISUAL[1] |

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

**Groundwater Monitoring Wells Table for Sample Location Mw9 (Monitoring Well) To Be Reported Annually[1]**

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---|---|---|---|---|---|---|
| **Parameter** | **Base** | **Quantity** | **Concentration** | **Monitoring Loc** | **Sample Loc** | **Measurement Frequency** | **Sample Type** |
| Solids, total dissolved | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW9 | Annual | DISCRT |
| Chloride (as Cl) | Annual Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW9 | Annual | DISCRT |
| Nitrogen, total | Annual Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW9 | Annual | DISCRT |

Notes (Groundwater Monitoring Wells Table):

1. To be reported annually in the fourth quarter report.

**Rationale for Permit Requirements:**

Monitoring is required to assess the level of treatment being provided by the facultative pond system and to determine when design capacity is being approached. Groundwater monitoring is required to ensure that groundwater quality is not degraded as a result of the discharge. Monitoring of irrigation water is required to track the quantity of the reuse water being applied by spray irrigation.

**Fecal Coliform:**

Daily Maximum ≤ 400 CFU/100mL

**Special Conditions:**

Substantial compliance with the current permit is a condition of permit renewal.

SA – Special Approvals / Conditions Table

| |
|---|
| There are no Special Approval / Condition items |

**Flow:**

Daily Maximum ≤ 0.580 MGD

30-Day Average ≤ 0.320 MGD

**Corrective Action Sites:**

There are no Bureau of Corrective Actions remediation sites located within one mile of the permitted facility.

**Wellhead Protection Program:**

The permitted facility is not located within a Drinking Water Protection Area or a Wellhead Protection Area.

**Schedule of Compliance:**

SOC – Schedule of Compliance Table

| Item # | Description | Due Date |
|---|---|---|
| 1 | The Permittee shall submit a new Operations and Maintenance (O&M) Manual to the Division. The O&M Manual shall be prepared by a qualified individual in accordance with guidance document *WTS-2: Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatement Plant*. | 1/1/2016 |
| 2 | The Permittee shall submit a new Effluent Management Plan (EMP) to the Division. The EMP shall be prepared and wet-stamped by a Nevada Registered Professional Engineer in accordance with guidance document *WTS-1B: General Criteria for Preparing an Effluent Management Plan*. | 1/1/2016 |

**Deliverable Schedule:**

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

| Item # | Description | Interval | First Scheduled Due Date |
|---|---|---|---|
| 1 | Quarterly DMRs | Quarterly | 1/28/2016 |
| 2 | Annual Report | Annually | 1/28/2016 |

**Procedures for Public Comment:**

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Reno Gazette Journal, Elko Daily Free Press** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **9/25/2015** , a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:**

The Division has made the tentative determination to issue / re-issue the proposed 5-year permit.

Prepared by: **Alan Pineda**
Date: **8/18/2015**
Title: **Staff I Associate Engineer**