

# STATE OF NEVADA

Brian Sandoval, Governor

Department of Conservation & Natural Resources

Leo M. Drozdoff, P.E., Director

DIVISION OF ENVIRONMENTAL PROTECTION

Colleen Cripps, Ph.D., Administrator

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

- Permittee Name: THE PRIMADONNA COMPANY, LLC 31900 S. LAS VEGAS BLVD. PRIMM, NV - 89019
- Permit Number: NS0090001
- Location: PRIMM WASTEWATER TREATMENT PLANT, CLARK 31900 S. LAS VEGAS BLVD., PRIMM, NV - 89019 LATITUDE: 35.605278, LONGITUDE: -115.386944 TOWNSHIP: 27S, RANGE: 59E, SECTION: 08 & 09

| Outfall /<br>Well Num | Outfall / Well Name                           | Location<br>Type    | Well<br>Log<br>Num | Outfall<br>City | Outfall<br>State | Outfall<br>Zip | Outfall<br>County | Latitude  | Longitude   | Receiving<br>Water |
|-----------------------|---|---------------------|--------------------|-----------------|------------------|----------------|-------------------|-----------|-------------|--------------------|
| 001                   | 001 - EFFLUENT                                | External<br>Outfall |                    | PRIMM           | NV               | 89019          | CLARK             | 35.6050   | -115.387222 | GROUNDWATER        |
| 002                   | 002 - RAPID INFILTRATION<br>BASINS            | External<br>Outfall |                    | PRIMM           | NV               | 89019          | CLARK             | 35.613333 | -115.368333 | GROUNDWATER        |
| 003                   | 003 - WALTER M. HIGGINS<br>GENERATING STATION | External<br>Outfall |                    | PRIMM           | NV               | 89019          | CLARK             | 35.613611 | -115.36     | GROUNDWATER        |
| 004                   | 004 - LANDSCAPE<br>IRRIGATION                 | External<br>Outfall |                    | PRIMM           | NV               | 89019          | CLARK             | 35.605278 | -115.3875   | GROUNDWATER        |
| 005                   | 005 - DUST CONTROL                            | External<br>Outfall |                    | PRIMM           | NV               | 89019          | CLARK             | 35.605278 | -115.3875   | GROUNDWATER        |
| 006                   | MONITORING WELL 1A (RIB<br>DOWN-GRADIENT)     | Monitoring<br>Well  |                    | PRIMM           | NV               | 89019          | CLARK             | 35.6150   | -115.367778 | GROUNDWATER        |
| 007                   | MONITORING WELL 2A (RIB<br>UP-GRADIENT)       | Monitoring<br>Well  |                    | PRIMM           | NV               | 89019          | CLARK             | 35.613056 | -115.368333 | GROUNDWATER        |
| 008                   | MONITORING WELL 3 (OLD<br>RIB)                | Monitoring<br>Well  |                    | PRIMM           | NV               | 89019          | CLARK             | 35.607778 | -115.380833 | GROUNDWATER        |
| 009                   | MONITORING WELL 4<br>(DRYING BEDS)            | Monitoring<br>Well  |                    | PRIMM           | NV               | 89019          | CLARK             | 35.605833 | -115.381944 | GROUNDWATER        |

### General:

The Primadonna Company, LLC (Primadonna) has applied for renewal of groundwater discharge permit NS0090001. Primadonna owns and operates the Primm Wastewater Treatment Plant (PWTP), an activated sludge/extended aeration package wastewater treatment plant located east of I-15 on the Nevada/California border. The treatment system includes four lift stations, two grinders, a Mar-Wood package treatment plant, four rapid infiltration basins, and twelve asphalt-lined sludge drying beds.

Service connections to PWTP include three hotel/casinos, two service station/convenience stores, several restaurants, an outlet mall, employee housing, and a California Lottery Outlet. Secondary treated and denitrified effluent is discharged to the rapid infiltration basins for evaporation/percolation (Outfall 002). Secondary treated, denitrified, and disinfected effluent meeting reuse Category C requirements may be

discharged to the Walter M. Higgins Generating Station to be used as cooling tower/plant make-up water (Outfall 003). Secondary treated, denitrified, and disinfected effluent meeting reuse Category B requirements may be used at the Primadonna properties for landscape irrigation (Outfall 004) and construction/dust control uses (Outfall 005). Waste activated sludge is discharged to a series of asphalt-lined drying beds prior to disposal at a permitted landfill.

### **Discharge Characteristics:**

The facility discharges secondary treated, denitrified effluent. Depending on its discharge location, it is also disinfected. During the previous 5-year permit cycle, there were three Total Nitrogen limit exceedances (February and April 2008, December 2011) and two Fecal Coliform exceedances (August 2010 and March 2012). The facility is considered to be in substantial compliance with the permit.

#### **Receiving Water:**

The receiving water is groundwater of the State. Groundwater is found at a depth ranging from approximately 117 ft. to 160 ft. below ground surface and flows north. Drinking water for the area is pumped from wells located approximately 10 miles southwest of Primm near the base of Clark Mountain.

### **Summary of Changes From Previous Permit:**

In order to maintain consistency with current NDEP policy and the monitoring requirements of similar treatment facilities, the following permit changes have been made:

- 1. The permitted Outfalls have been re-designated as:
- 001 Effluent
- 002 Rapid Infiltration Basins
- 003 Walter M. Higgins Generating Station
- 004 Landscape Irrigation
- 005 Dust Control
- 006 Monitoring Well 1A
- 007 Monitoring Well 2A
- 008 Monitoring Well 3
- 009 Monitoring Well 4

2. The requirement to monitor sewage influent for BOD and total suspended solids has been removed from this permit.

3. The requirement to monitor the amount of nitrate as nitrogen and ammonia as nitrogen in the effluent has been removed from this permit. The Permittee is still required to report the amount of total nitrogen in the effluent.

4. The requirement to monitor the amount of nitrate as nitrogen and the elevation of groundwater in the monitoring wells has been removed from this permit. The Permittee is still required to report the amount of total nitrogen and the depth to groundwater.

5. Due to a new Permit naming convention at NDEP, Bureau of Water Pollution Control, the permit ID has been changed from NEV90001 to NS0090001. This change does not reflect a change in the type of permit being issued.

### **Proposed Effluent Limitations:**

The Division proposes the following permit limitations and monitoring requirements:

| <b>WWTP Discharge Limitations</b> | Table for Sample Location | 001 - Effluent - Monthly |
|-----------------------------------|---------------------------|--------------------------|
|-----------------------------------|---------------------------|--------------------------|

|                            | [                                 | Discharge Lim                                       | Monitoring Requirements                    |                   |               |                          |                |
|----------------------------|-----------------------------------|---|--|-------------------|---------------|--------------------------|----------------|
| Parameter                  | Base                              | Quantity  | Concentration                              | Monitoring<br>Loc | Sample<br>Loc | Measurement<br>Frequency | Sample<br>Type |
| BOD, 5-day                 | 30 Day<br>Average <sup>[1]</sup>  |   | <= 30<br>Milligrams<br>per Liter<br>(mg/L) | Effluent<br>Gross | 001           | Monthly                  | COMPOS         |
| BOD, 5-day                 | Daily<br>Maximum <sup>[1]</sup>   |   | <= 45<br>Milligrams<br>per Liter<br>(mg/L) | Effluent<br>Gross | 001           | Monthly                  | COMPOS         |
| Solids, total<br>suspended | 30 Day<br>Average <sup>[1]</sup>  |   | <= 30<br>Milligrams<br>per Liter<br>(mg/L) | Effluent<br>Gross | 001           | Monthly                  | COMPOS         |
| Solids, total<br>suspended | Daily<br>Maximum <sup>[1]</sup>   |   | <= 45<br>Milligrams<br>per Liter<br>(mg/L) | Effluent<br>Gross | 001           | Monthly                  | COMPOS         |
| Nitrogen, total            | 30 Day<br>Average <sup>[1]</sup>  |   | M&R<br>Milligrams<br>per Liter<br>(mg/L)   | Effluent<br>Gross | 001           | Monthly                  | COMPOS         |
| Nitrogen, total            | Daily<br>Maximum <sup>[1]</sup>   |   | < 10<br>Milligrams<br>per Liter<br>(mg/L)  | Effluent<br>Gross | 001           | Monthly                  | COMPOS         |
| pH, minimum                | Monthly<br>Minimum <sup>[2]</sup> |   | >= 6.0<br>Standard<br>Units (SU)           | Effluent<br>Gross | 001           | Monthly                  | DISCRT         |
| pH, maximum                | Monthly<br>Maximum <sup>[2]</sup> |   | <= 9.0<br>Standard<br>Units (SU)           | Effluent<br>Gross | 001           | Monthly                  | DISCRT         |
| Flow rate <sup>[3]</sup>   | 30 Day<br>Average                 | <= 1.0<br>Million<br>Gallons<br>per Day<br>(Mgal/d) |  | Effluent<br>Gross | 001           | Continuous               | CALCTD         |
| Flow rate <sup>[3]</sup>   | Daily<br>Maximum                  | <= 1.0<br>Million<br>Gallons<br>per Day<br>(Mgal/d) |  | Effluent<br>Gross | 001           | Continuous               | CALCTD         |

Notes (WWTP Discharge Limitations Table):

- 1. If only one sample is taken during the monitoring period, enter the result as both the 30-day average and daily maximum.
- 2. If only one sample is taken during the monitoring period, enter the result as both the monthly minimum and monthly maximum.
- 3. The total effluent flow shall not exceed a 30-day average or a daily maximum of 1.0 million gallons per day.

## Groundwater Monitoring Wells Table for Sample Location 006 - Monitoring Well 1A - To Be Reported Quarterly

|   |       | Discharge Li     | mitations                                 | Monitoring Requirements |               |                          |                |  |
|---|-------|------------------|---|-------------------------|---------------|--------------------------|----------------|--|
| Parameter                                       | Base  | Quantity         | Concentration                             | Monitoring Loc          | Sample<br>Loc | Measurement<br>Frequency | Sample<br>Type |  |
| Depth to water level<br>ft below<br>landsurface | Value | M&R Feet<br>(ft) |   | Groundwater             | 006           | Quarterly                | DISCRT         |  |
| Chloride (as Cl)                                | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 006           | Quarterly                | DISCRT         |  |
| Nitrogen, total                                 | Value |                  | < 10<br>Milligrams<br>per Liter<br>(mg/L) | Groundwater             | 006           | Quarterly                | DISCRT         |  |
| Solids, total<br>dissolved                      | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 006           | Quarterly                | DISCRT         |  |

## Groundwater Monitoring Wells Table for Sample Location 007 - Monitoring Well 2A - To Be Reported Quarterly

|   |       | Discharge Li     | mitations                                 | Monitoring Requirements |               |                          |                |  |
|---|-------|------------------|---|-------------------------|---------------|--------------------------|----------------|--|
| Parameter                                       | Base  | Quantity         | Concentration                             | Monitoring Loc          | Sample<br>Loc | Measurement<br>Frequency | Sample<br>Type |  |
| Depth to water level<br>ft below<br>landsurface | Value | M&R Feet<br>(ft) |   | Groundwater             | 007           | Quarterly                | DISCRT         |  |
| Chloride (as Cl)                                | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 007           | Quarterly                | DISCRT         |  |
| Nitrogen, total                                 | Value |                  | < 10<br>Milligrams<br>per Liter<br>(mg/L) | Groundwater             | 007           | Quarterly                | DISCRT         |  |
| Solids, total<br>dissolved                      | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 007           | Quarterly                | DISCRT         |  |

# Groundwater Monitoring Wells Table for Sample Location 008 - Monitoring Well 3 - To Be Reported Quarterly

|   |       | Discharge Li     | mitations                                 | Monitoring Requirements |               |                          |                |  |
|---|-------|------------------|---|-------------------------|---------------|--------------------------|----------------|--|
| Parameter                                       | Base  | Quantity         | Concentration                             | Monitoring Loc          | Sample<br>Loc | Measurement<br>Frequency | Sample<br>Type |  |
| Depth to water level<br>ft below<br>landsurface | Value | M&R Feet<br>(ft) |   | Groundwater             | 008           | Quarterly                | DISCRT         |  |
| Chloride (as Cl)                                | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 008           | Quarterly                | DISCRT         |  |
| Nitrogen, total                                 | Value |                  | < 10<br>Milligrams<br>per Liter<br>(mg/L) | Groundwater             | 008           | Quarterly                | DISCRT         |  |
| Solids, total<br>dissolved                      | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 008           | Quarterly                | DISCRT         |  |

### Groundwater Monitoring Wells Table for Sample Location 009 - Monitoring Well 4 - To Be Reported Quarterly

|   |       | Discharge Li     | mitations                                 | Monitoring Requirements |               |                          |                |  |
|---|-------|------------------|---|-------------------------|---------------|--------------------------|----------------|--|
| Parameter                                       | Base  | Quantity         | Concentration                             | Monitoring Loc          | Sample<br>Loc | Measurement<br>Frequency | Sample<br>Type |  |
| Depth to water level<br>ft below<br>landsurface | Value | M&R Feet<br>(ft) |   | Groundwater             | 009           | Quarterly                | DISCRT         |  |
| Chloride (as Cl)                                | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 009           | Quarterly                | DISCRT         |  |
| Nitrogen, total                                 | Value |                  | < 10<br>Milligrams<br>per Liter<br>(mg/L) | Groundwater             | 009           | Quarterly                | DISCRT         |  |
| Solids, total<br>dissolved                      | Value |                  | M&R<br>Milligrams<br>per Liter<br>(mg/L)  | Groundwater             | 009           | Quarterly                | DISCRT         |  |

# Re-use Discharge Limitations Table for Sample Location 003 - Walter M. Higgins Generating Station - To Be Reported Monthly<sup>[1]</sup>

|   |                                  | Discharge Lin                                    | nitations  | Monitoring Requirements |               |                          |                |  |
|---|----------------------------------|--|--|-------------------------|---------------|--------------------------|----------------|--|
| Parameter                                   | Base                             | Quantity   | Concentration  | Monitoring<br>Loc       | Sample<br>Loc | Measurement<br>Frequency | Sample<br>Type |  |
| Flow rate                                   | 30 Day<br>Average                | M&R<br>Million<br>Gallons per<br>Day<br>(Mgal/d) |  | Prior to<br>Reuse       | 003           | Continuous               | METER          |  |
| Flow rate                                   | Daily<br>Maximum                 | M&R<br>Million<br>Gallons per<br>Day<br>(Mgal/d) |  | Prior to<br>Reuse       | 003           | Continuous               | METER          |  |
| Coliform, fecal,<br>colony forming<br>units | 30 Day<br>Average <sup>[2]</sup> |  | <= 23 Colony<br>Forming<br>Units per<br>100ml T<br>(CFU/100mL)     | Prior to<br>Reuse       | 003           | Monthly                  | DISCRT         |  |
| Coliform, fecal,<br>colony forming<br>units | Daily<br>Maximum <sup>[2]</sup>  |  | <= 240<br>Colony<br>Forming<br>Units per<br>100ml T<br>(CFU/100mL) | Prior to<br>Reuse       | 003           | Monthly                  | DISCRT         |  |

Notes (Re-use Discharge Limitations Table):

1. If there is no discharge from this outfall during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for this outfall.

2. If only one sample is taken during the monitoring period, enter the result as both the 30-day average and daily maximum.

## Re-use Discharge Limitations Table for Sample Location 004 - Landscape Irrigation - To Be Reported Monthly<sup>[1]</sup>

|   |                                  | Discharge Lin                                    | nitations  | Monitoring Requirements |               |                                |                |  |
|---|----------------------------------|--|--|-------------------------|---------------|--------------------------------|----------------|--|
| Parameter                                   | Base                             | Quantity   | Concentration  | Monitoring<br>Loc       | Sample<br>Loc | Measurement<br>Frequency       | Sample<br>Type |  |
| Flow rate                                   | 30 Day<br>Average                | M&R<br>Million<br>Gallons per<br>Day<br>(Mgal/d) |  | Prior to<br>Irrigation  | 004           | Continuous                     | METER          |  |
| Coliform, fecal,<br>colony forming<br>units | 30 Day<br>Average <sup>[2]</sup> |  | <= 2.2<br>Colony<br>Forming<br>Units per<br>100ml T<br>(CFU/100mL) | Prior to<br>Irrigation  | 004           | Monthly<br>When<br>Discharging | DISCRT         |  |
| Coliform, fecal,<br>colony forming<br>units | Daily<br>Maximum <sup>[2]</sup>  |  | <= 23 Colony<br>Forming<br>Units per<br>100ml T<br>(CFU/100mL)     | Prior to<br>Irrigation  | 004           | Monthly<br>When<br>Discharging | DISCRT         |  |
| Flow rate                                   | Daily<br>Maximum                 | M&R<br>Million<br>Gallons per<br>Day<br>(Mgal/d) |  | Prior to<br>Irrigation  | 004           | Continuous                     | METER          |  |

Notes (Re-use Discharge Limitations Table):

1. If there is no discharge from this outfall during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for this outfall.

2. If only one sample is taken during the monitoring period, enter the result as both the 30-day average and daily maximum.

## Re-use Discharge Limitations Table for Sample Location 005 - Dust Control - To Be Reported Monthly<sup>[1]</sup>

|   |                                  | Discharge Lin                                    | nitations  | Monitoring Requirements |               |                                |                |
|---|----------------------------------|--|--|-------------------------|---------------|--------------------------------|----------------|
| Parameter                                   | Base                             | Quantity   | Concentration  | Monitoring<br>Loc       | Sample<br>Loc | Measurement<br>Frequency       | Sample<br>Type |
| Flow rate                                   | Daily<br>Maximum                 | M&R<br>Million<br>Gallons per<br>Day<br>(Mgal/d) |  | Prior to<br>Reuse       | 005           | Continuous                     | METER          |
| Coliform, fecal,<br>colony forming<br>units | 30 Day<br>Average <sup>[2]</sup> |  | <= 2.2<br>Colony<br>Forming<br>Units per<br>100ml T<br>(CFU/100mL) | Prior to<br>Reuse       | 005           | Monthly<br>When<br>Discharging | DISCRT         |
| Coliform, fecal,<br>colony forming<br>units | Daily<br>Maximum <sup>[2]</sup>  |  | <= 23 Colony<br>Forming<br>Units per<br>100ml T<br>(CFU/100mL)     | Prior to<br>Reuse       | 005           | Monthly<br>When<br>Discharging | DISCRT         |
| Flow rate                                   | 30 Day<br>Average                | M&R<br>Million<br>Gallons per<br>Day<br>(Mgal/d) |  | Prior to<br>Reuse       | 005           | Continuous                     | METER          |

Notes (Re-use Discharge Limitations Table):

1. If there is no discharge from this outfall during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for this outfall.

2. If only one sample is taken during the monitoring period, enter the result as both the 30-day average and daily maximum.

### Ponds / Rapid Infiltration Basins for Sample Location 002 - Rapid Infiltration Basins - Be Reported Monthly<sup>[1]</sup>

|           | Discharge Limitations |   |               |                   | Monitoring Requirements |                          |                |  |
|-----------|-----------------------|---|---------------|-------------------|-------------------------|--------------------------|----------------|--|
| Parameter | Base                  | Quantity                                      | Concentration | Monitoring<br>Loc | Sample<br>Loc           | Measurement<br>Frequency | Sample<br>Type |  |
| Flow rate | 30 Day<br>Average     | M&R Million<br>Gallons per<br>Day<br>(Mgal/d) |               | Effluent<br>Gross | 002                     | Continuous               | METER          |  |
| Flow rate | Daily<br>Maximum      | M&R Million<br>Gallons per<br>Day<br>(Mgal/d) |               | Effluent<br>Gross | 002                     | Continuous               | METER          |  |

### Notes (Ponds / Rapid Infiltration Basins):

1. If there is no discharge from this outfall during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for this outfall.

### Rationale for Permit Requirements:

Monitoring is required to ensure that the treatment plant capacity is not exceeded, to assess the quality of the effluent being discharged, to monitor the amount of treated effluent delivered to the approved reuse sites, and to monitor groundwater quality.

### Fecal Coliform:

Reuse Category B treated effluent must meet a 30-day geometric mean of  $\leq$  2.2 mpn/100 mL and a daily maximum of  $\leq$  23 mpn/100 mL. Reuse Category C treated effluent must meet a 30-day geometric mean of  $\leq$  23 mpn/100 mL and a daily maximum of  $\leq$  240 mpn/100 mL.

### **Special Conditions:**

#### SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

### Flow:

This facility will be permitted to discharge a 30-day average and daily maximum flow of 1.0 million gallons per day.

#### **Corrective Action Sites:**

There is one Bureau of Corrective Actions remediation site (8-000772) located within one mile of this facility. NDEP does not believe that the renewal of this discharge permit will have a negative impact on the ongoing remediation activities.

### Wellhead Protection Program:

This facility is not located within a Drinking Water Protection Area or an active Wellhead Protection Area established for any current well sources.

### Schedule of Compliance:

| SOC - Sche | edule of Co | ompliance | Table |
|------------|-------------|-----------|-------|
|------------|-------------|-----------|-------|

| ltem<br># | Description   | Due Date |
|-----------|---|----------|
| 1         | The Permittee shall submit two (2) copies of an updated Operation and Maintenance (O&M)<br>Manual for review and approval by the Division. The O&M Manual shall be prepared by a<br>Nevada Registered Professional Engineer or other Division-approved qualified person. <sup>[1]</sup> | 5/1/2015 |

Notes (Schedule of Compliance Table):

1. O&M Manuals prepared by Nevada Registered Professional Engineers must be signed and stamped in accordance with NAC 625.610.

#### **Deliverable Schedule:**

| Item # | Description       | Interval  | First Scheduled Due Date |
|--------|-------------------|-----------|--------------------------|
| 1      | Quarterly Reports | Quarterly | 4/28/2015                |
| 2      | Annual Reports    | Annually  | 1/28/2016                |

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

### **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 Las Vegas **Review Journal** 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. 3/2/2015, 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: Peter Lassaline Date: 8/19/2014 Title: Environmental Scientist