

**Mark Anthony Brewing Facility
Individual Recycled Water Permit No. R513319
PLACE ID 198939, LTF 95752**

I. Introduction:

In compliance with the provisions of Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 7 and A.A.C. Title 18, Chapter 11, Article 3 and amendments thereto, and the conditions set forth in this permit, Mark Anthony Brewing Inc., located in Waddell, in Maricopa County, Arizona, is hereby authorized to use reclaimed water for beneficial purposes in accordance with the limitations, monitoring requirements and other conditions set forth in this permit and in the rules cited above.

II. Facility Location:

9601 N. Reems Road.,
Waddell, Arizona 85355

III. Facility Description:

Mark Anthony Brewing Inc. is a beverage manufacturer located in Waddell, Arizona. Mark Anthony Brewing Inc. operates an industrial Wastewater Treatment Plant (WWTP) to treat process water from Mark Anthony Brewing (MAB) Facility.

The water used for production of beverage products will be pumped from an on-site production well at a maximum rate of 1440 gallons per minutes (gpm). The water will be treated through a Reverse Osmosis (RO) system and the RO reject water will be discharged to an onsite industrial WWTP. The WWTP treats the wastewater generated at the site. The WWTS will receive up to 1.24 million gallons per day wastewater generated by brewing operations including cleaning tanks, cleaning equipment, any product spillage, cooling tower blowdown water, boiler blowdown water and RO reject water. The wastewater is treated through pH polishing tank, AquaTex Bioreactors #1, #2 and #3, Dissolve Air Flotation (DAF) unit, and tertiary disk filters. After the treatment, effluent will flow to a discharge sump, and then it will be conveyed to the reuse sites located near the MAB Facility. The WWTP includes two surge tanks for the storage of any effluent or plant upsets.

This permit authorizes the use of industrial reclaimed water for irrigation of up to 487 acres of a combination of alfalfa, roses, citrus trees, fruit (cantaloupe) and vegetables (cabbage, salad greens and brassicas) which will be used as a food or forage crop for animal or human consumption (A.A.C. R18-9-C701(A)(2)).

IV. Reuse Site Description

The industrial reclaimed water from the MAB Facility will be conveyed to the reuse sites (Fields) located near the System. The permittee will construct ~1500 linear feet of 8" force main and connecting to an existing 36" concrete irrigation pipe at the existing manhole. The 36" irrigation pipe continues easterly until it reaches the outfall at the storage pond (Justice Pond). The industrial reclaimed water will be collected in the Justice Pond located on Field #1 where it will then be pumped into a sprinkler system for irrigation or conveyed easterly up to ~6,100 feet through an

earthen ditch which terminates in a storage pond (Rousseau Pond) on the Field #3. The farmers will supplement the industrial reclaimed water with water from the Maricopa Water District (MWD) during periods of high irrigation demand. MAB estimates that its treated industrial reclaimed water will meet 40% of the irrigation water demand for Fields #1, #2 and #3. The MWD water will be blended with MAB industrial reclaimed water in the same irrigation pipe and will be stored in the Justice Pond prior to being applied to the fields or conveyed through earthen ditch to Fields #2 or #3.

The industrial reclaimed water will be applied at consumptive use rates at Fields #1, #2 and #3 for irrigation of up to 487 acres of a combination of alfalfa, roses, citrus trees, fruit (cantaloupe) and vegetables (cabbage, salad greens and brassicas) which will be used as a food or forage crop for animal or human consumption (A.A.C. R18-9-C701(A)(2)).

The Department has determined that the Justice Pond and Rousseau Pond will be regulated under this Industrial Recycled Water Permit and will be exempt from the requirement of an Aquifer Protection Permit pursuant to Arizona Revised Statute §49-250(B)(6). The storage capacity of Justice Pond will be 0.598 million gallons and Rousseau Pond will be 0.448 million gallons.

This permit only authorizes the use of industrial reclaimed water or blended water (MWD water and MAB industrial reclaimed water) for agricultural irrigation at the Fields #1, #2 and #3. The facility has provided the Contractual Agreement with Field #2 and will be provided for Fields #1 and #3 per Section 3.3.1. The industrial reclaimed water or blended water will be provided to the additional Fields #4 to #8 to irrigate up to 605 acres of field as needed in the future. Table I provides the information for reuse fields and irrigation of types of the crop at each field. Prior to providing the reclaimed water to the Fields #4 to #8, the facility shall notify the Department, and provide the information for the conveyance system and provide a copy of the Contractual Agreement as described in Sections 3.3.2 and 3.3.3 of this permit. Upon approval from the Department, the facility may provide the industrial reclaimed water to additional Fields #4 to #8.

The monitoring requirements and discharge limits are specified in Table for the industrial reclaimed water from the MAB Facility. The Discharge Limit for flow from the industrial discharges through the MAB Facility to the Direct Reuse Irrigation fields shall not exceed 1,240,000 gallons per day. Total daily flow to the reuse site shall be monitored and recorded.

V. Regulatory Status:

An Individual Industrial Reclaimed Water Permit was issued for Mark Anthony Brewing Plant on June 1, 2022.

An application for Individual Industrial Reclaimed Water received on August 15, 2022 to amend the permit to remove the requirement of a Type 3.01 General Aquifer Protection Permit for storage of industrial reclaimed water at the Justice Pond and Rousseau Pond. The Department has determined that the storage ponds for reclaimed water will be exempt from the requirement of an Aquifer Protection Permit pursuant to Arizona Revised Statute §49-250(B)(6).

The industrial reclaimed water from MAB Facility will be used at Fields #1, #2 and #3 for irrigation of up to 487 acres of combination of alfalfa, roses, fruits and vegetables which will be used as a food or forage crop for animal or human consumption (A.A.C. R18-9-C701(A)(2)). The facility is required to obtain an Individual Industrial Recycled Water Permit per A.A.C. R18-9-

C701(A)(2) because of the use of reclaimed water from an industrial facility for production or processing of a crop or substance that may be used as human or animal food.

VI. Compliance with Aquifer Water Quality Standards (AWQS):

Monitoring and Reporting Requirements

The permittee is required to collect representative samples of the reclaimed water prior to delivery for reuse. The permittee is required to monitor the industrial reclaimed water daily for flow rate, monthly for nitrate as N, nitrite as N, nitrate-nitrite as N, Total Kjeldahl Nitrogen (TKN), total nitrogen and fecal coliform, and quarterly for cyanide, fluoride and metals.

VII. List of the Reuse Fields:

Table I: List of the Reuse Fields					
Fields and Owner	Parcel #	Latitude	Longitude	Acreage (acres)	Types of crops to be irrigated
#1 – Dwayne Justice	501-42-005 501-42-006 501-43-018 501-43-019	33° 34' 36.3" N	112° 22' 34.4" W	197.04	Alfalfa, Citrus Trees, Fruits & Vegetables
#2 – Leyton Woolf	501-43-016A	33° 34' 10.5" N	112° 22' 19.4" W	153.76	Roses
#3 – Suburban Land Preserve	501-43-015E	33° 34' 35.9" N	112° 21' 48.3" W	136.37	Fruits & Vegetables
#4 – Tall Wi Wi	501-43-023A	33° 34' 9.8" N	112° 21' 47.5" W	134.95	Variety of Alfalfa, Fruits & Vegetables
#5 – Tall Wi Wi	501-43-013C	33° 34' 36.8" N	112° 21' 17.3" W	133.86	Variety of Alfalfa, Fruits & Vegetables
#6 – Tall Wi Wi	501-43-012C	33° 34' 9.7" N	112° 21' 16.7" W	114.12	Variety of Alfalfa, Fruits & Vegetables
#7 – Tall Wi Wi	501-42-024B	33° 33' 43.7" N	112° 21' 40.6" W	72.00	Variety of Alfalfa, Fruits & Vegetables
#8 – Tall Wi Wi	501-47-007G	33° 33' 43.5" N	112° 21' 16.3" W	149.61	Variety of Alfalfa, Fruits & Vegetables

