

**Arkansas Department of Environmental Quality
Water Quality Management Plan Update Summary Sheet**

Date: February 15, 2013

New Permit

Renewal Permit

Amended Permit

Type of Discharge: Minor Municipal

Facility Name: City of Mountain View

Permit No.: AR0020117

Design Flow Rate (MGD): 0.73 MGD

Receiving Stream: Hughes

HUC + Reach Code: 11010004+10

7Q10: 0 cfs

Planning Segment: 4F **County:** Stone

Proposed Effluent Limits in mg/L (CBOD5/TSS/NH3-N/DO):

(May-Oct): 10.0/15.0/3.9/6.0

(Nov-March): 10.0/15.0/10.0/7.0

(April): 10.0/15.0/3.9/7.0

TMDL Limits (if any):

No

Current Effluent Limits in mg/L (CBOD5/TSS/NH3-N/DO):

(May-Oct): 10.0/15.0/3.9/6.0

(Nov-March): 10.0/15.0/10.0/7.0

(April): 10.0/15.0/3.9/7.0

Outfall Location (Lat/Long): 35° 51' 57.32" N; 92° 08' 42.54" W

Remarks: This is for the reissuance of the discharge permit for this existing facility. No changes to effluent limits are recommended at this time.

Ammonia Calculations

Facility Name City of Mountain View
 Major or Minor Minor
 Permit Number AR0020117
 Receiving Stream Hughes Creek

Ecoregion or River name Ozark Highlands
 Watershed area (mi²) 1
 Regulation No. 2 Chronic Toxicity Criteria (Instream Concentration)
 AML, mg/l DML, mg/l
 April 3.9 3.9
 May - October 3.9 3.9
 November - March 10.3 10.3

Arkansas River
 Arkansas River Valley
 Boston Mountains
 Delta
 Gulf Coastal Plains
 Ouachita Mountains
 Ouachita River (L. Mo. to Mouth)
 Ozark Highlands
 Red River
 White River (Dam #10 Mouth)

Allowable Effluent Conc., mg/l

$$(Q_e * C_e) + (Q_b * C_b) = (Q_e + Q_b) * IWC$$

Q_e Effluent Flow
 C_e Allowable Effluent Concentration
 Q_b % of Low Flow of Receiving Stream
 C_b Background Concentration
 IWC Instream Waste Concentration Chronic Toxicity Criteria

Allowable Effluent Conc. (C_e), mg/l

$C_e = (IWC(Q_e + Q_b) - C_b \times Q_b) / Q_e$
 Monthly Avg.,mg/l Daily Max, mg/l
 April 3.90 3.90
 May - October 3.90 3.90
 November - March 10.30 10.30

Chronic Toxicity Criteria vs. D.O. Model Limits

Month	Monthly Average, mg/l		Permit Limits	Daily Maximum,mg/l		Permit Limits
	Toxicity limit	D.O. limit		Toxicity limit	D.O. limit	
April	3.90	3.9	3.90	3.90	5.85	3.90
May - October	3.90	3.9	3.90	3.90	5.85	3.90
November - March	10.30	10	10.00	10.30	15	10.30