

# ADEQ

ARKANSAS  
Department of Environmental Quality

APR 05 2016

Tom Bartlett  
Villages of Cross Creek Apartments  
P.O. Box 9299  
Fayetteville, AR 72703

RE: Preliminary NPDES Discharge Limits; Village of Cross Creek Apartments  
AFIN: 04-00899; Permit No. 4811-WR-4

Dear Mr. Bartlett:

This is in response to your letter dated February 9, 2016 requesting preliminary effluent discharge limits for a discharge of treated domestic wastewater from the Village of Cross Creek Apartments to an unnamed tributary of Brush Creek at the following proposed discharge location.

Discharge coordinates:	36° 21' 55.59" N; 94° 08' 42.55" W
HUC + Reach:	11070208 + 277
Receiving Stream:	unnamed tributary of Brush Creek
Planning Segment:	3J
Ecoregion:	Ozark Highlands
County:	Benton

The Department has determined that the unnamed tributary at this discharge location could potentially be classified as a losing stream segment. In accordance with Reg. 6.301(D)(2), new facilities proposing to discharge to a stream which could potentially be a losing stream segment shall submit documentation demonstrating whether or not the segment is a losing stream segment. This documentation includes a stream study, showing the stream segment does or does not meet the criteria of a losing stream segment as defined in Reg. 6.301(B).

Before the Department can provide preliminary effluent limitations, you must perform a stream study to determine if the proposed receiving stream is a losing stream segment beginning at proposed point of discharge and extending two miles downstream. If you decide to perform a losing stream study, the Department strongly recommends that a study plan be developed and submitted for review and approval prior to conducting the study.

If the study determines that this segment of the proposed receiving stream is a losing stream segment, the Department will also need documentation which complies with Reg. 6.301(C) before preliminary effluent limitations can be provided. Reg. 6.301(C) states that discharges to losing streams segments shall be permitted only after other alternatives including (a) land application of wastewater, (b) discharge to a non-losing stream segment, and (c) connection to a regional wastewater treatment facility, have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY


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www.adeq.state.ar.us

For your reference, a copy of Reg. 6.301 is enclosed. If you have any questions, you can reach us at the contact information listed below.

Sincerely,



Shane Byrum  
Staff Engineer  
NPDES Discharge Permits Section  
Office of Water Quality  
(501) 682-0618  
E-mail: [byrum@adeq.state.ar.us](mailto:byrum@adeq.state.ar.us)



Clark McWilliams, P.E.  
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NPDES Discharge Permits Section  
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Enclosure (Reg. 6.301)

CC: Tate Wentz, Ecologist Coordinator, Planning Branch, Office of Water Quality  
Sarah Clem, Planning Branch Manager, Office of Water Quality  
Jamal Solaimanian, Engineer Supervisor, State Permits Branch, Office of Water Quality  
Richard Healey, Enforcement Branch Manager, Office of Water Quality  
John Bailey, Senior Operations Manager, Office of Water Quality  
Caleb Osborne, Associate Director, Office of Water Quality

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## CHAPTER THREE: LOSING STREAM SEGMENTS

### Reg.6.301 Effluent Discharges to Losing Stream Segments

- (A) In addition to all applicable effluent standards and conditions required by State and federal laws and regulations, wastewater discharged to losing stream segments shall comply with subsections (B) through (E) below.
- (B) For purposes of this regulation, a “losing stream segment” is defined as a stream segment which, beginning at the point of existing or proposed discharge and extending two (2) miles downstream, contribute thirty percent (30%) or more of its flow at a 7Q10 flow or one (1) cfs, whichever is greater, through natural processes such as permeable subsoil or cavernous bedrock into an aquifer.
- (C) Effluent Limitations for Discharges into Losing Stream Segments:
- (1) Discharges to losing stream segments shall be permitted only after other alternatives including (a) land application of wastewater, (b) discharge to non-losing stream segment, and (c) connection to a regional wastewater treatment facility, have been evaluated and determined to be unacceptable for environmental and/or economic reasons.
  - (2) If the Department agrees to allow a discharge to a losing stream segment, the permit will be written using the limitations described below, as a minimum. Discharges from wastewater treatment facilities, which receive primarily domestic waste, or from publicly owned treatment works shall undergo treatment sufficient to conform to the following limitations:
    - (a) CBOD<sub>5</sub> equal to or less than a monthly average of ten (10) mg/1 and a seven (7) day average of fifteen (15) mg/1.
    - (b) Total Suspended Solids equal to or less than a monthly average of fifteen (15) mg/1 and a seven (7) day average of twenty-three (23) mg/1;
    - (c) Provisions of 40 C.F.R. § 133.102(c);
    - (d) The fecal coliform content of discharges shall not exceed a monthly average of 200 colonies per 100 milliliters and a weekly average of 400 colonies per 100 milliliters. However, at no time shall the fecal coliform content exceed 200 colonies per 100 milliliters in any water defined as an Extraordinary Resource Water or Natural and Scenic Waterway;
    - (e) Nitrate plus nitrite nitrogen levels shall not exceed ten (10) mg/1;
    - (f) Ammonia (as Nitrogen) limitations shall be included as necessary to prevent ammonia toxicity in-stream and/or to maintain instream dissolved oxygen.

(g) Other parameters as deemed appropriate by the Department.

(D) Implementation of Losing Stream Regulation

- (1) Existing discharges. At the time of permit renewal, or when deemed necessary by the Department, National Pollutant Discharge Elimination System permittees discharging to stream segments which may be losing stream segments, as defined above, shall submit documentation as part of the renewal permit application, showing that the segment is or is not a losing stream segment. If the discharge is into a losing stream segment, then the facility must be capable of meeting the effluent limitations described above, as a minimum.
- (2) New discharges. New facilities proposing to discharge to a stream which may be a losing stream segment shall submit documentation as part of the initial National Pollutant Discharge Elimination System permit application demonstrating that the segment is or is not a losing stream segment. This documentation includes, but is not limited to, stream studies or other data, showing the stream segment does or does not meet the criteria in Reg.6.301(B) above. If the proposed discharge is into a losing stream segment, then the facility must be designed and operated to meet the effluent limitations described above, as a minimum.
- (3) For facilities in both Reg.6.301(D)(1) and (2) above, stream studies for determining classification as a losing stream segment must be conducted during the critical low flow season, when stream flow is at least 1 cfs and representative of seasonal flow. Effluent flow, when existing, can be included in the minimum 1 cfs stream flow.
- (4) The Department shall determine the requirement for, and the content and level of detail of, stream studies, based on local topography, geological data, file data, other dischargers in area, stream flow, etc.

(E) Review of Applications by Arkansas Department of Health for Discharges of Domestic Effluents.

Nothing in this regulation limits the authority of the Arkansas Department of Health to include additional requirements as a prerequisite to its approval of the treatment/disposal system.