

BROOKTRAILS TOWNSHIP

COMMUNITY SERVICES DISTRICT

24860 Birch Street

Brooktrails, California 95490

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November 17, 2014

Adrienne Moore
City Manager
City of Willits
111 East Commercial Street
Willits, California 95490

Dear Adrienne:

I am writing to you in reference to an item on the November 12, 2014 - request for input agenda summary report on discussion regarding wastewater treatment plant influent metering system evaluation, a copy of which you provided to the Township.

I have forwarded the documents to the Township's engineering consultants for review and analysis. I anticipate that the Township will provide formal engineering recommendations and comments to the City in advance of your December 10, 2014 meeting regarding this matter.

However, I thought it important that the Township provide you with some preliminary comments regarding the report to the Council and its subsequent discussion at the meeting.

1. The North Coast Regional Water Quality Control Board Order No. R1-2010-0017 - Waste discharge requirements and master reclamation permit for the city of Willits wastewater treatment facility, requires metering "at the headworks of wastewater treatment facility (WWTF) prior to treatment and consisting of wastewater from both the collection system and septage receiving station" to measure the "mean daily dry weather flow" and "mean daily flow of waste through the new treatment plant" (see attached pages E-4 and F-23).

2. Since 1975, Section 16 of the Agreement between the City and the Township states that operating costs "shall be apportioned annually by the City according to the ratio of flow of the District to the *total flow entering* the treatment plant." (*emphasis added*)

Therefore, the recommendation that the totalizing meter be moved to EEF-2 would require a permit amendment and an amendment to the contract.

As you may know the Township did not have an opportunity to participate in the discussions concerning the design and development of the new waste water treatment plant, nor did it have an opportunity to review the overall design until the project was let for bid.

There seemed to be some confusion during the discussion of the report at the Council meeting, concerning the selection of the meters, particularly with regard to the parshall flume meter and the Township's role in such selection. The only comment made by the Township regarding the meter selection was contained in a letter dated February 8, 2007, from Mike Chapman to Tom Herman, Regional Manager SHN Consulting Engineers. The letter only discusses the meter to measure the Brooktrails flow (*see attachment*).

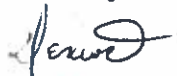
The discussion of the treatment plant influent meter was in the January 22, 2007 SHN Technical Memorandum 'Willits WWTP Influent Flow Meter' addressed to the City, which recommended the type of metering system currently in use noting:

“...Because of the ability to verify the accuracy of an open-channel flow meter in service these are the devices often preferred for allocating treatment benefit or billing purposes. Open channel flow metering systems, properly set-up and calibrated, are very accurate - usually within ± 2 percent of the instantaneous reading....”

Also in the Council's discussion of the Brooktrails initiated October 1, 2013, on-site review of the treatment plant influent meter there seemed to be a lack of awareness of the fact described in the first paragraph of the Brelje & Race report that “City operations staff provided essential assistance to the review.” Further there seemed to be a similar lack of awareness that for months prior to the October 2013 date Brooktrails had indicated concerns about the efficacy and operation of the influent metering system because of lack of calibration, so that City staff and officials were well aware of the Brooktrails concerns in early 2013 well before July 2014.

Please feel free to call me concerning this matter.

Sincerely,



Denise Rose
General Manager

c. Board of Directors, Brooktrails Township Community Services District
Chris Neary, Counsel, Brooktrails Township Community Services District
City Council, City of Willits

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-2. Monitoring Station Locations

| Discharge Point Name | Monitoring Location Name | Monitoring Location Description |
|----------------------|--------------------------|--|
| -- | INF-001 | Influent at the headworks of wastewater treatment facility (WWTF) prior to treatment and consisting of wastewater from both the collection system and septage receiving station. |
| --- | CCC-001 | Internal monitoring location for purposes of monitoring chlorine residual in chlorine treated wastewater within the contact chamber prior to dechlorination ¹ . |
| 001 | EFF-001 | Treated effluent from the existing WWTF downstream of disinfection processes, before contact with the receiving water or land application. |
| 002 | EFF-002 | Treated effluent from the mechanical portion of the new WWTF downstream of the disinfection processes. |
| 003 | EFF-003 | Treated effluent from the new WWTF downstream of the enhancement wetland before contact with the receiving water. |
| 004 | EFF-004 | Treated effluent from the new WWTF downstream of the enhancement wetland before effluent application to reclamation use area(s) |
| -- | RSW-001 | Outlet Creek surface water at the confluence of Baechtel and Broaddus Creeks upstream of and beyond influence of the discharge. |
| -- | RSW-002 ² | Outlet Creek surface water at the point of discharge of Discharge Point 001 |
| -- | RSW-003 | Outlet Creek surface water at the point of discharge of Discharge Point 003. |
| -- | RSW-004 | Outlet Creek surface water approximately 500 feet downstream of Discharge Point 003 ³ . |
| -- | SEP-001 | Septage receiving station after complete mixing of septage wastes and prior to the WWTF headworks |

¹ This requirement applies only when disinfection is performed using chlorination.

² Only required when discharging at Discharge Point 001.

³ Upon written request from the Discharger and subsequent approval from the Executive Officer, the exact location of RSW may be changed to best reflect site specific needs and/or conditions.

This prohibition is necessary to ensure that the Discharger is aware of all discharges of septage into the treatment system so that pollutants associated with domestic septage do not pass through or interfere with the operation or performance of the WWTF.

- 10. Prohibition III.J.** The mean daily dry weather flow of waste through the existing treatment plant shall not exceed 1.3 mgd, measured at INF-001 over a calendar month. The wet weather flow of waste through the existing treatment plant shall not exceed peak flows of 3.0 mgd, measured continuously at INF-001, calculated daily and averaged over a calendar month.

This prohibition is retained from the previous permit and is based on the dry weather and peak hydraulic treatment capacity of the existing Facility.

- 11. Prohibition III.K.** The mean daily flow of waste through the new treatment plant shall not exceed 4.0 mgd, measured continuously at INF-001, calculated daily and averaged over a calendar month.

This prohibition represents a fraction of the new WWTF treatment and hydraulic design capacity of 7.0 mgd. This prohibition correspond to the treatment capacity deemed necessary by the Discharger to adequately treat current and anticipated waste flows for the term of this Order. As the community grows, the Discharger may request that this limit be increased, up to the full treatment capacity design of 7.0mgd. Any additional increase from the current limit of 4.0 mgd will require that the permit be reopened and must be approved by the Regional Water Board after appropriate analysis and consideration.

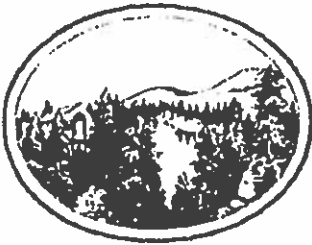
B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR Part 133.

Regulations promulgated in 40 CFR 125.3(a)(1) require technology-based effluent limitations for municipal Dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.



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February 8, 2007

Tom Herman -- Regional Manager
SHN Consulting Engineering & Geologists, Inc.
P.O. Box 38
Willits, CA 95490

Re: Dale Fraser recommendation of 9 inch vs. 12 inch Parshall flume¹

Dear Tom,

In a conversation with Dale Fraser from Gresham, Oregon, his preference was to keep his correspondence directed to me -- since I hired him -- rather than dispersing them to other parties that might think he is infringing upon their rights. He has always expressed to me clearly that the City of Willits may conduct their business how they see fit.

However, I did suggest to Mr. Fraser that I wanted to forward some technical language to you because I think Mr. Fraser has vast experience in the field of measuring devices. He said in a third party manner:

Quote:

"I suggest the City of Willits consider using a 9 inch Parshall flume to monitor Brooktrails Township wastewater discharge, proposed to be installed at Mill Creek manhole.

My understanding is, typically, Brooktrails wastewater discharge is approximately .230 MGD (160) GPM which is below the minimum freeflow rating of a 12 inch Parshall flume.

Further, the maximum freeflow discharge for a 9 inch Parshall flume is 3.3 MGD before submergence (i.e. Hb - Ha = 70%) which is well above Brooktrails wastewater discharge."

Please call me if you have any questions.

Yours truly,

Mike Chapman
General Manager

cc: Ross Walker, City Manager

¹ As a preface the City of Willits has a current proposal of using a 12 inch Parshall flume at the Mill Creek manhole.

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