

McKinleyville Community Services District



ANNUAL WASTEWATER MANAGEMENT FACILITY MONITORING & DISCHARGE REPORT FOR 2012

NPDES No. CA0024490
WDID No. 1B820840HUM

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March 1, 2013

Regional Water Quality Control Board, North Coast Region
5550 Skylane Blvd., Suite A
Santa Rosa, California 95403

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY ANNUAL REPORT, FOR 2012**

The McKinleyville Community Services District operates the wastewater collection, treatment, and disposal facilities that serve 6265 customer units in the unincorporated area of McKinleyville in Northern Humboldt County. The system operates under Order Number WQ 2011-0008-DWQ, National Pollution Discharge Elimination System (NPDES) Permit No. CA0024490, WDID No. 1B820840HUM and issued by the California State Water Resources Control Board.

Tables 1 and 2 summarize the existing permit elements for reference.

Table 1. Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	45	65			
	lbs/day	604	873			
Total Suspended Solids	mg/L	83				
	lbs/day	1108				
pH	pH Units				6.5	8.5
Settleable Matter	mg/L	0.1		0.2		
Chlorine Residual	mg/L	0.01		0.02		
Nitrate as Nitrogen	mg/L	10				
4,4'-DDT	ug/L	0.00059		0.0027		
bis(2-ethylhexyl) phthalate	ug/L	1.8		3.6		

Table 2. Summary of Monitoring Location Names and Descriptions.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
	M-INF	Treatment facility headworks
All	M-001	Chlorine contact chamber following dechlorination
001	M-002	Outfall to the Mad River under the Hammond Trail railroad bridge
002	M-003	Outfall to Mad River percolation ponds
003	M-004	Recycled wastewater irrigation of Lower Fisher Ranch
004	M-005	Discharge to land on Upper Fisher Ranch
005	M-006	Recycled wastewater irrigation of Hiller Storm Water Treatment Wetland
006	M-007	Recycled wastewater irrigation of Pialorsi Ranch
	M-008	Overflow from the Hiller Storm Water Treatment Wetland
	R-001	Mad River at Highway 101 Bridge
	R-002	North bank of Mad River as close as possible to the discharge point under the Hammond Trail Bridge
	W-001	Well M-1 adjacent to Fisher Road
	W-002	Well M-2 on the SW corner of the intersection of School and Fisher Roads
	W-006	Well M-6 south of W-9 and west of W-7
	W-007	Well M-7 in the upper portion of the Fisher parcel
	W-008	Well M-8 400 feet west of the intersection of School and Fisher Roads
	W-009	Well M-9 adjacent to School Road
	W-014	Well down gradient of the Hiller Storm Water Treatment Wetlands
	W-015	Well within the Lower Fisher Ranch irrigation area
	W-016	Well within the Pialorsi Ranch irrigation area

Compliance:

Biochemical Oxygen Demand (BOD) Testing:

Discharge Point 001 requirement for BOD are 45 mg/L, 604 lbs/day and 65% removal for the monthly average and a weekly average limit of 65 mg/L and 873 lbs/day. Discharge Point 002 requirement for BOD are 45 mg/L monthly average and a weekly average limit of 65 mg/L. Discharge Point 003- 006 requirements for BOD is 45 mg/L monthly.

BOD limitations for 2012 were not exceeded.

Total Suspended Solids Testing (TSS):

Discharge Point 001 requirement for TSS are 83 mg/L, 1108 lbs/day and 65% removal for the monthly average. Discharge Points 002- 006 requirements is 83 mg/L for the monthly average.

TSS limitations for 2012 were not exceeded.

3x5 Total Coliform/ Disinfection Testing:

The effluent limitations for coliform 3x5 testing is a maximum monthly median, a most probable number (MPN) of 23 per 100 milliliters and a daily maximum of 230 MPN and are the same for Discharge Point 001- 006. Coliform limitations for Monthly Median and Daily Maximum were in compliance in 2012 except for >1600 in November. The weekly test before and after were both <1.8 indicating a probable lab or collection error.

Settleable Matter Testing:

The effluent limitations for settleable Matter testing are listed in Table 1 and are for Discharge Point 001. Settable Matter limitations for 2012 were not exceeded.

Chlorine Residual Testing:

The effluent limitations for Chlorine Residual testing are listed in Tables 1 and are for Discharge Point. Residual limitations for 2012 were not exceeded.

Nitrate as Nitrogen Testing:

The effluent limitations for Nitrate as Nitrogen testing are listed in Tables 1 and are for Discharge Point 001 and 002. Nitrate as Nitrogen limitations for 2012 were not exceeded.

4,4'-DDT; bis(2-ethylhexyl) phthalate and carbon tetrachloride Testing:

The effluent limitations for these constituents are Table 1 and are for Discharge Point 001. The limitations for 2012 were in compliance.

Acute Toxicity Monitoring:

The acute toxicity monitoring bioassay criteria for Discharge Point 001 requires a 96-hour fish bioassay test conducted at M-001 in undiluted effluent. Two test species were required, Ceriodaphnia dubia (C.dubia) and Rainbow Trout. The method for conducting this test require the laboratory maintain the test sample the same pH as when the effluent sample was collected and that ammonia, pH and temperature be recorded on 24-hour intervals and reported with the bioassay test results.

It was determined that the C. dubia was too sensitive to the buffering agent used to maintain the pH and mortality rates were beyond the limits set forth in the permit so pH control of the C. dubia was discontinued. After the first year of testing the most sensitive species was to be determined and continue testing that species only but we have continues to conduct testing on both species.

The minimum compliance for any one test is 70% survival. The median for all bioassays during any calendar month is at least 90%. If the results of any 96-hour bioassay test are not in compliance a follow up test is required within 7 day of notification. The results for Acute Testing were in compliance in 2012 with the exception of a November and December tests for C. dubia.

Non-Compliance:

3x5 Total Coliform/ Disinfection Testing:

The effluent limitations for coliform 3x5 testing is a maximum monthly median, a most probable number (MPN) of 23 per 100 milliliters and a daily maximum of 230 MPN and are the same for Discharge Point 001- 006. Coliform limitations for Monthly Median and Daily Maximum were in compliance in 2012 except for >1600 in November.

Conclusion

The weekly test before and after were both <1.8 indicating a probable lab or collection error.

Acute Toxicity Testing

The Requirement for Acute Toxicity testing is a minimum of 70% survival for any one test and median for all tests in one month of 90%. Acute Testing remained in compliance throughout the calendar year for Rainbow Trout and C. dubia remained in compliance from January to May but when we returned to the river in November and December the our C. dubia experienced mortality. Please review Table 3 for results.

Table 3 Monthly and Accelerated Testing

Date Collected	Test	Trout Survival	Cerio Survival
11/20/2012	Monthly	100%	10%
12/4/2012	Accelerated #1	-	85%
12/11/2012	Monthly	100%	75%
12/18/2012	Accelerated #2		85%

Conclusion

It has been a long standing observation that our ammonia levels are high and un-ionized ammonia cause toxicity in the right conditions. Due to the toxicity of the pH buffering agent and the high temperatures required for *C. dubia*, pH fluctuations and temperatures far outside those characteristic in our effluent cause unionized ammonia to increase to become toxic.

The District has identified a preferred alternative in the 20 Year Facility Plan to address ammonia toxicity and has entered into a contract for design to address these considerations. The District will also be considering other interim solutions to lowering the ammonia concentrations in the midterm and possibly augment the new design.

Chronic Toxicity Monitoring:

The chronic toxicity monitoring bioassay criteria for Discharge Point 001 requires a 96-hour static renewal or 96-hour static non-renewal testing. The sample is a 24-hour composite and is representative of the volume and quality of the discharge. The sampling is conducted at M-001 WWMF Effluent. Test species for chronic testing are a vertebrate, the fathead minnow, *Pimephales promelas* (larval survival and growth test), an invertebrate, the water flea, *Ceriodaphnia dubia* (survival and reproduction test), and a plant, the green alga, *Selenastrum capricornutum* (growth test). The District conducted chronic toxicity testing one time during the 2012 discharge season. The testing results for Acute Testing are detailed in Table 4

Table 4 Chronic Toxicity Testing for 2012

Dilution Water	Date	Test Species				
		Flathead minnow		Water flea		Algae
		Survival	Growth	Survival	Reproduction	Growth
Diluted w/ Lab Control Water	Jan. 2012	TUc = 2	TUc = 4	TUc = 1	TUc =>8	1.333

Accelerated Monitoring Requirements:

If the result of any chronic toxicity test exceeds the chronic toxicity trigger of 1.0 TUc and the testing meets all test acceptability criteria, the District shall initiate accelerated monitoring. Accelerated monitoring shall consist of four additional effluent samples, one test conducted approximately every week, over a four-week period. Testing shall commence within 14 days of receipt of the sample results of the exceedance of the chronic toxicity effluent limitation. The following protocol was used for accelerated monitoring and the TRE implemented and detailed in a study submitted during the 2009 discharge season.

Conclusion:

It was concluded that the mortality experienced in regular testing and verified in the monitoring study was due to ammonia. Ammonia toxicity has been addressed in the 20 Year Facility Plan and a preferred alternative has been identified for an upgrade that will reliably remove ammonia. Planning and design will be underway in early 2013 with construction to follow. An interim solution for ammonia removal will also be explored.

Other Projects and Commentary on the Treatment Process:

Treatment Process Trends:

The success of a particular process can be gauged by tracking the removal of BOD and TSS. Chart 1 demonstrates average BOD concentration in mg/L from 2003 through 2012. The average BOD in 2012 was 28 mg/L and continues to remain well below 45mg/L, our current limit.

Chart 1 Annual Average BOD Concentrations

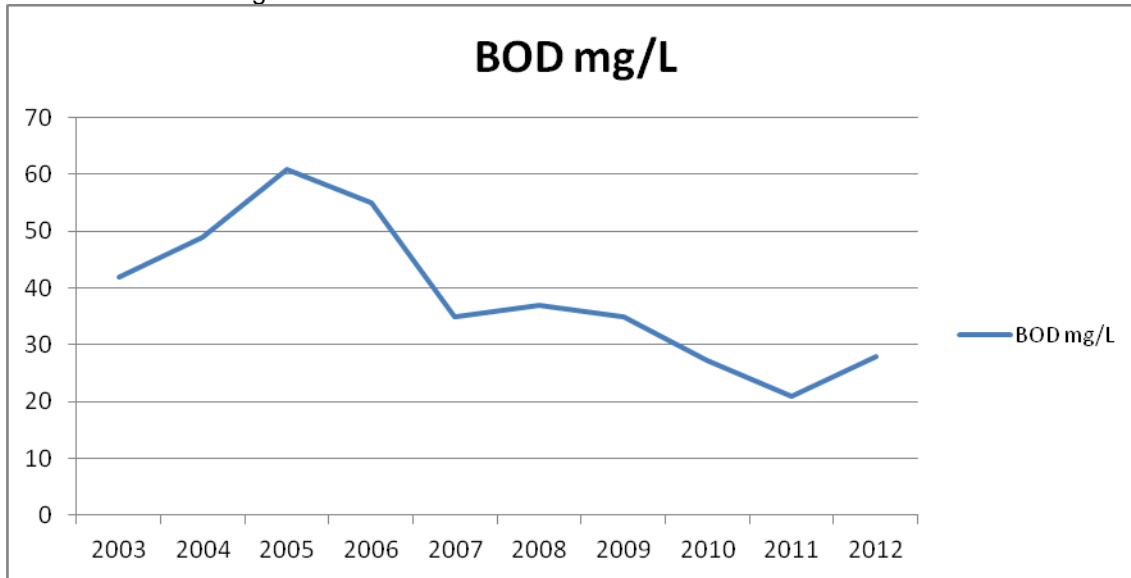


Chart 2 demonstrates average TSS concentration in mg/L from 2003 through 2012. The average TSS in 2012 was below 30 mg/L and is well below 100mg/L, the level it was in 2005.

Chart 2 Annual Average TSS Concentrations

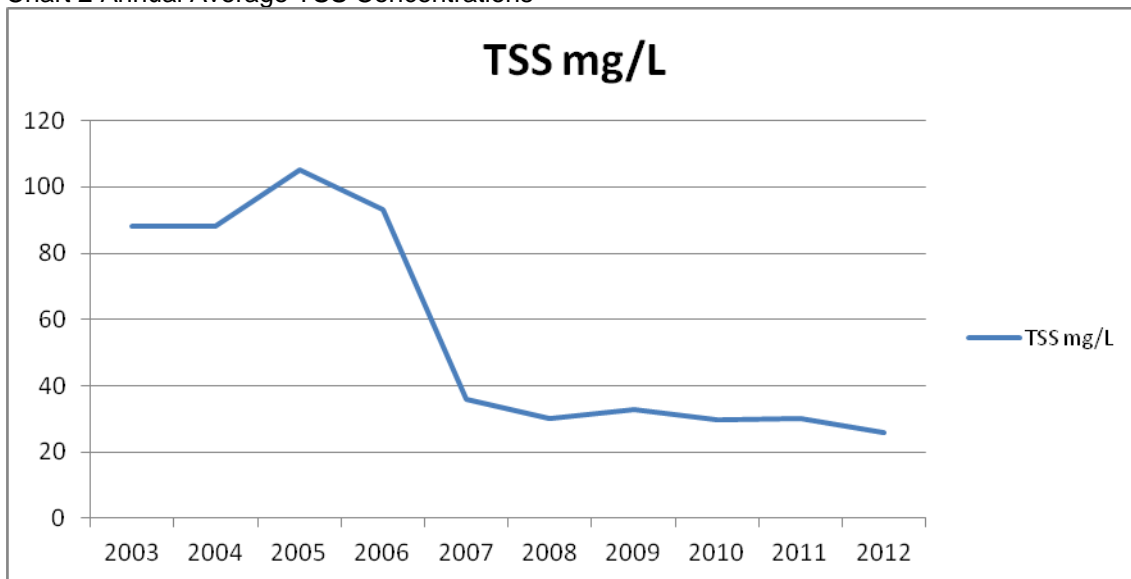
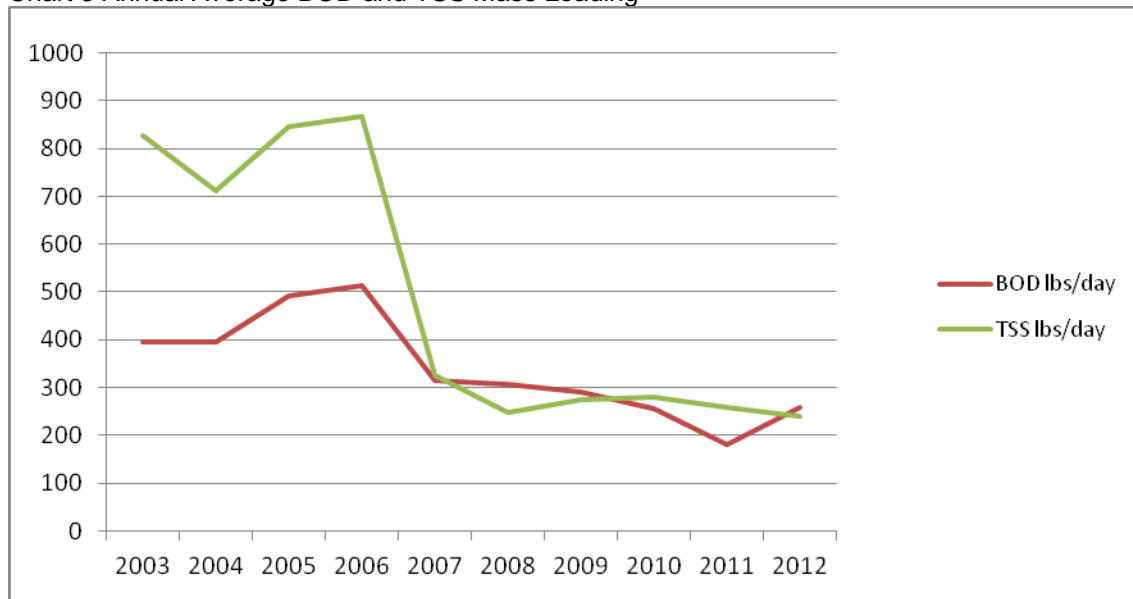


Chart 3 is the product of the flow and the concentration, is identified as mass loading and measured in pounds per day. BOD and TSS continue to trend lower. With a slight increase in 2012.

Chart 3 Annual Average BOD and TSS Mass Loading



Charts 1-3 demonstrate the steady trend upward of BOD and TSS from 2003 through the time of the treatment marsh upgrade project completion in 2006. From 2006 through 2007 the performance of the treatment process can be demonstrated by the drastic improvement. From 2007 through 2011 the efficiency of the process continues to trend down. The blip upward in BOD experience in 2012 will be noted for potential upward trending.

Main Area of Concern:

Nitrogen Removal

Ammonia has been identified as the main area of concern as demonstrated through biological testing and the appearance of Nitrate in the ground water adjacent to the irrigation sites. Though our permit does not directly limit ammonia we recognize the importance of addressing the concern. The District is committed to reversing the trend of ammonia toxicity in our effluent stream. The 20 Year Facility Plan directly addresses and is dedicated to the removal by treatment of this constituent. The District is also exploring other interim alternatives that have the potential to augment planned upgrades and are addressed in the WWMF Improvement Project Design. There is a potential we will be requesting a Cease and Desist Order related to ammonia and therefore a compliance schedule.

Summary of Work Completed in 2012

Sanitary Sewer Management Plan (SSMP)

In May for 2011 MCSD assisted by Freshwater Environmental completed our SSMP as required by our NPDES Permit. The SSMP is an operational plan that was designed by the state to help prevent sanitary sewer overflows. The full document can be located at the District's web site by following this link.

http://mckinleyvillecsd.com/sites/mckinleyvillecsd.com/files/documents/MCSD%20SSMP%20Final%200511811_0.pdf

Review for our SSMP occurs annually and MCSD will start work in early 2013 on Contingency Plans for all Sewer lift Stations.

Facility Inspections: Attachment 1

Facilities inspections were conducted in 2009 and will reoccur every five years. These inspections were used to determine the necessity of an individual waste discharge permit for our customers.

Individual Waste Discharge Permit Applications: Attachment 2

Applications for all significant users of our sewer system were required to apply for a pretreatment permit in 2012. The permits are issued under the authority of the Sewer Use Ordinance.

Local Limits Report: Attachment 3

Update to our Local Limits Ordinance required processes be established for determination of monitoring locations, constituents to be tested frequency and number of tests. These guidelines are regulated by U.S. Environmental Protection Agency and were strictly adhered to. The process and results are contained in the MCSD Local Limits Report. This report was used to justify the modernization of MCSD Local Limits.

Sewer Use Ordinance and Local Limits: Attachment 4

After a pretreatment audit conducted by Tetra Tech on behalf of Regional Water Quality Control Board it was determined Tetra Tech's recommendations would be elevated to requirements. Since then MCSD has completely rewritten our Sewer Use Ordinance including and Local Limits to modernize the ordinance and increase our authority to regulate nondomestic sewer.

20 Year Facilities Plan

The District also completed significant work in 2011 on the 20-year facilities plan for the District WWMF. An initial draft of the facilities plan was published in August 2011 for a peer review by Kennedy Jenks. In October 2011 a revised draft was published and circulated for public review and comment. The final draft of the facilities plan was published in January 2012 and accepted by the District board on February 1, 2012. The full document can be located at the District web site by following this link.

<http://mckinleyvillecsd.com/document-library/20%20Year%20Facilities%20Plan>

INDEX OF ATTACHMENTS and EXHIBITS

ATTACHMENT 1: Facility Inspections

ATTACHMENT 2: Individual Waste Discharge Permit Applications

ATTACHMENT 3: Local Limits Report

ATTACHMENT 4: Sewer Use Ordinance and Local Limits

EXHIBIT A: Tabular and Graphical Data

Influent and Effluent Monthly Totals
Influent and Effluent Maximum Day

EXHIBIT B: Tabular

CFS, River Dilution, Effluent Flow and Effluent Distribution

EXHIBIT C: Tabular and Graphical Data

Monthly Totals for Effluent Flow and Discharge Disposal Locations
Annual Effluent Distribution Pie Chart
Daily Totals for Effluent Flow and Discharge Disposal Locations

EXHIBIT D: Tabular Data

Monthly Monitoring Report (Permit exceedances highlighted in yellow)

EXHIBIT E: Tabular Data

Influent and Effluent Testing Monthly Averages
Daily Influent and Effluent Testing

EXHIBIT F: Tabular and Graphical Data

30-day Average BOD and NFR Worksheet
30 Day BOD and NFR Maximum, Minimum and Average Chart
BOD and NFR 30 Average Concentration Chart
BOD and NFR 30 Average lbs/day Chart
BOD and NFR 30 Day Average Removal Comparisons
BOD Influent, Effluent and Terminal Pond Comparisons

EXHIBIT G: Tabular and Graphical Data

Monthly Averages for pH, temperature Ionized and Unionized Ammonia
Relationship between Temperature and Ammonia Percent Removal Chart
Influent and Effluent Average Total Ammonia Chart

EXHIBIT H: Tabular Data

Discharge Data R-001, R-002 and M-001
Discharge Data R-003
Discharge Data R-004 and R-005
Well Monitoring Data

EXHIBIT I: Tabular Graphical Data

Pond Sludge Depths
Remaining Sludge Capacity Chart
Monthly/ Annual Averages for Pond Ammonia
Monthly/ Annual Averages for Pond Temperature
Monthly/ Annual Averages for Pond pH
Monthly/ Annual Averages for Pond Dissolved Oxygen
Monthly/ Annual Averages for Pond Level

EXHIBIT J: Tabular and Graphical Data

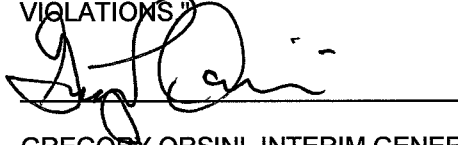
Monthly Total Aerator Hours
Monthly Total Aerator Hours versus Ammonia % Removal Chart
Monthly Total Aerator Hours versus Effluent BOD Chart
Monthly Total Aerator Hours versus BOD Percent Removal Chart

EXHIBIT K: Tabular Data

Monthly Total Electric, Cl₂, SO₂, and Rain Gage Data
TKN, Alkalinity, and Nitrate Special Testing

If you have any questions, please contact this office.

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED, IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

A handwritten signature in black ink, appearing to read 'Gregory Orsini', is written over a horizontal line.

GREGORY ORSINI, INTERIM GENERAL MANAGER

Facilities with Pretreatment

Customer	Minkler's Jewelry
Service Address	1981 Central Ave
Location ID	2094
Initial Inspection Completed	5/5/2009
Home Phone	
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	
Comment	
Drains	Sink/toilet
Comments	Plating that generates liquid waste. Waste will be accumulated and transported to Eureka Small business hazardous waste collection until permit is developed to cover small scale plating.
Waste Water Contact	
Waste Water Contact Phone	
Reccomendations	
Other drains	Sinks with plating
Potential Violations	
Pre-treatment	Zero
Sink BMPs	<input type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	U. S. COAST GUARD,
Service Address	1001 LYCOMING AVE
Location ID	3980
Initial Inspection Completed	4/1/2009 1:00:00 PM
Home Phone	(804)523-6940
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	SQG
HAZNET	
Haz materials	H
Priority	High
Comment	Airport
Drains	Sinks/toilets, kitchen, overhead door strip drains
Comments	Outside wash rack for aircraft, diverts to stormwater when not used for washing. When washing discharge to OWS and then sanitary sewer. Very well maintained facility, excellent haz mat facilities and awareness.
Waste Water Contact	Mr. Wolfe
Waste Water Contact Phone	707-839-6163
Reccomendations	
Other drains	Outside wash basin with diverter to stormwater
Potential Violations	
Pre-treatment	OWS
Sink BMPs	<input type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	McKinleyville Union Transportation District
Service Address	2275 Central Avenue
Location ID	9001
Initial Inspection Completed	3/29/2009 10:00:00 AM
Home Phone	
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	Medium
Comment	
Drains	Sinks/toilets, bus wash area outside, OWS with diverter to stormwater system
Comments	
Waste Water Contact	Scott Oilar
Waste Water Contact Phone	707-839-2584 Dist office 839-1549
Reccomendations	
Other drains	Outside bus wash
Potential Violations	
Pre-treatment	OWS
Sink BMPs	<input type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	Karen Beck, Fredrick Johnson, DDS
Service Address	1955 Central Avenue
Location ID	1554
Initial Inspection Completed	3/27/2009 2:00:00 PM
Home Phone	707-839-1100
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	
Comment	
Drains	4-toilet/sinks, 12 sinks in exam rooms, 2 sinks in sterilization lab, 2 sinks in lab, vacuum system drain
Comments	Digital photography only, sterilizer solution picked up. Amalgam picked up.
Waste Water Contact	Maurine
Waste Water Contact Phone	
Reccomendations	Sink BMPs.
Other drains	Exam sinks, Lab sinks
Potential Violations	
Pre-treatment	Dental
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	STEVE'S SEPTIC SVC LLC,
Service Address	1810 MURRAY ROAD
Location ID	6426
Initial Inspection Completed	2/27/2009 8:30:00 AM
Home Phone	(707)839-2270
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	Unknown
Comment	Question
Drains	5 residential sink/toilet connections. One connection after septage pretreatment. BOD tested on Fridays.
Comments	Recommended 1) educational letter to clients (for the good of your system). 2) Review clients against hazmat list. 3) Written SOP for load rejection.
Waste Water Contact	Wes Green, Kent Tuter
Waste Water Contact Phone	496-0175, 498-2113
Reccomendations	Pre-treatment and discharge of accumulated septage.
Other drains	Septage drain
Potential Violations	
Pre-treatment	SIU
Sink BMPs	<input type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	Davis & Johansson, DDS
Service Address	1661 Pickett
Location ID	3228
Initial Inspection Completed	2/24/2009 5:00:00 AM
Home Phone	707-839-3227
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	
Comment	
Drains	2 toilet/sink, 20 exam room sinks, 3 lab sinks, sediment traps in each exam room, screen trap in vacuum system.
Comments	Digital photography and chemical photo processing, recovery/recycling.
Waste Water Contact	
Waste Water Contact Phone	
Reccomendations	Sink BMPS, drain BMPS.
Other drains	Exam sinks, Lab sinks
Potential Violations	
Pre-treatment	Dental
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	MELLON DDS, GREGORY T
Service Address	1737 CENTRAL
Location ID	1340
Initial Inspection Completed	2/23/2009 1:00:00 AM
Home Phone	(707)839-3262
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	HAZNET
Haz materials	H
Priority	Low
Comment	
Drains	2 toilet/sinks, 8 exam room sinks, 2 lab sinks, vacuum system drain, 2 "traps" in each sink, and one additional trap before the vacuum line enters the sewer drain.
Comments	Photo processing, fixer to recycler, developer in sink (MSDS) provided. Traps remove large chunks of bone, tooth. Limited hazardous materials.
Waste Water Contact	Mary Pelletier
Waste Water Contact Phone	(707)839-3262
Reccomendations	Sink BMPs.
Other drains	Exam sinks, Lab sinks
Potential Violations	
Pre-treatment	Dental
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	LES SCHWAB TIRES,
Service Address	2210 CENTRAL
Location ID	6367
Initial Inspection Completed	2/17/2009 10:30:00 AM
Home Phone	(707)839-8986
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	HAZNET
Haz materials	H
Priority	Medium
Comment	
Drains	3 toilet/sinks, 1 shop sink, Grated floor drain in shop (tire wash), Outside truck tire wash (no cover to storm water). 1-O/W/S maintained yearly.
Comments	Hazardous materials used and generated onsite.
Waste Water Contact	Pat Sheehy
Waste Water Contact Phone	(707)839-8986
Reccomendations	Shop sink, floor drains, O/W/S. Sink BMPs, Floor drain BMPs, O/W/S maintenance schedule. Cover or plug outside wash area that is exposed to storm water and not being used.
Other drains	Shop sink, floor drains, outside wash area
Potential Violations	24.02 Prohibited stormwater
Pre-treatment	OWS
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input checked="" type="checkbox"/>

Facilities with Pretreatment

Customer	MICKEY'S QUALITY CARS,
Service Address	1901 CENTRAL
Location ID	1425
Initial Inspection Completed	2/17/2009 10:00:00 AM
Home Phone	(707)839-4324
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	Medium
Comment	
Drains	3 toilet/sinks, sink in break room, sink in detail shop, long floor drain in main shop, Outside wash area with drain (no cover). 1-O/W/S.
Comments	Oil drums placed over open floor drain in shop. Hazardous materials in area of floor drain. Paint gun near detail shop sink.
Waste Water Contact	Mike Jones
Waste Water Contact Phone	(707)839-4324
Reccomendations	Shop floor drain, shop sink, outside wash basin/drain, O/W/S. Sink BMPs, Floor drain BMPs, O/W/S maintenance schedule.
Other drains	Shop sink, floor drains, outside wash area
Potential Violations	24.02 Prohibited stormwater
Pre-treatment	OWS
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input checked="" type="checkbox"/>

Facilities with Pretreatment

Customer	EVENSON, MICHAEL The Auto Spa
Service Address	1642 HOLLY
Location ID	1427
Initial Inspection Completed	2/13/2009 11:00:00 AM
Home Phone	(707)839-4425
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	Unknown
Comment	Question
Drains	4-wash bay drains with oil/water separators, 1-toilet, 1-shop floor drain.
Comments	Oil water separators only cleaned out every 5 years. Traps are near capacity, may be petroleum bypass. Shop floor drain unprotected from soap concentrates. Limited site control, clients bring in engines and use degreasers.
Waste Water Contact	Mike Evenson
Waste Water Contact Phone	(707)839-4425
Reccomendations	Recommended petroleum booms in oil/water separators and containment for chemicals in area of shop floor drain. Sampling-Permit? Oil/Water maintenance schedule. Sink BMPs, Floor drain BMPs, O/W/S maintenance schedule.
Other drains	Wash bay drains, floor drains
Potential Violations	24.08.2 Not continuous efficient operation of OWS
Pre-treatment	SIU
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BPMs	<input checked="" type="checkbox"/>

Facilities with Pretreatment

Customer	HUMBOLDT SANITATION,
Service Address	2585 CENTRAL
Location ID	3282
Initial Inspection Completed	2/12/2009 2:00:00 AM
Home Phone	(707)839-3285
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	HAZNET
Haz materials	H
Priority	Medium
Comment	
Drains	Toilet/sink, two outside wash bays, 1-o/w separator connected to veh wash bay, porta toilets cleaned in wash bay to sewer.
Comments	Hazardous materials associates with vehicle maintenance. Outside vehicle washing and toilet washing.
Waste Water Contact	Brian
Waste Water Contact Phone	
Reccomendations	Drains "other than". 1- oil/water separator on outside veh wash bay, 1-outside wash area for empty porta-potties. Veh wash area without cover allowing storm water runoff. Permit with sampling, Oil/Water maintenance schedule. Resolve porta toilet?
Other drains	Outside washdays
Potential Violations	24.02 Prohibited stormwater
Pre-treatment	OWS
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input type="checkbox"/>

Facilities with Pretreatment

Customer	BMW OF HUMBOLDT BAY,
Service Address	1795 CENTRAL
Location ID	5050
Initial Inspection Completed	2/11/2009
Home Phone	(707)839-4269
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	SQG
HAZNET	
Haz materials	H
Priority	High
Comment	
Drains	3 toilet/sink combinations, one floor drain in shop.
Comments	Shop floor is washed daily into floor drain in shop. Shop is very clean. Hazardous materials appear to be well managed. Radiator fluid, used oils, sorbents, and waste fuels are containerized and transported for disposal offsite.
Waste Water Contact	Kevin Danbrauskas
Waste Water Contact Phone	(707)839-4269
Reccomendations	Wastewater other than toilet/sink. Shop floor drain with hazardous materials present. They do have a three chamber O/W separator. Sink BMPs, Floor drain BMPs. O/WS BMPs or seal drain.
Other drains	Floor drain
Potential Violations	
Pre-treatment	OWS
Sink BMPs	<input type="checkbox"/>
Floor drain BMPs	<input checked="" type="checkbox"/>

Facilities with Pretreatment

Customer	Six Rivers Brewery
Service Address	1300 CENTRAL
Location ID	9002
Initial Inspection Completed	
Home Phone	
Co Haz Mat	CRTK HW HW, CRTK
RCRA SQG	
HAZNET	
Haz materials	H
Priority	
Comment	
Drains	Toilets/Sinks/ floor drains
Comments	
Waste Water Contact	
Waste Water Contact Phone	
Reccomendations	Need monitoring program developed for periodic sampling.
Other drains	Floor drains in brewery
Potential Violations	
Pre-treatment	SIU
Sink BMPs	<input checked="" type="checkbox"/>
Floor drain BMPs	<input checked="" type="checkbox"/>

PHYSICAL ADDRESS:

1656 SUTTER ROAD
McKINLEYVILLE, CA 95519

MAILING ADDRESS:

P.O. BOX 2037
McKINLEYVILLE, CA 95519

**MAIN OFFICE:**

PHONE: (707) 839-3251
FAX: (707) 839-8456

PARKS & RECREATION OFFICE:

PHONE: (707) 839-9003
FAX: (707) 839-5964

Date**McKinleyville Community Services District (MCS D) Wastewater Discharge Permits**

Dear **Facility Name**:

The facility located at **Situs Address** operating as **Facility name** is an Industrial User (IU) because it is a commercial or industrial facility whose wastes enter local sewers, (*MCS D Rule 1.33*). Additionally, the facility has been designated as a Significant Industrial User (SIU) and is required to obtain a Wastewater Discharge Permit.

MCS D Rules 1.68 indicates that a SIU is an Industrial User that discharges an average of twenty-five thousand (25,000) gallons per day (gpd) or more of process wastewater to the Publicly Owned Treatment Works (POTW), contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant, or is designated as such by the MCS D on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.

MCS D Rule 26.11.01 requires that SIUs acquire an individual wastewater discharge permit or a general wastewater discharge permit. Attached is a wastewater discharge permit application form that is to be completed, signed, and returned within 30 days to the MCS Ds pretreatment coordinator James Henry.

MCS D Rule 26.11.04 requires that within (45) days of receipt of a complete permit application, including additional information requested, the MCS D General Manager will determine whether or not to issue an individual wastewater discharge permit or a general permit.

MCS D Rule 27.09 authorizes the District to adopt reasonable charges and fees for reimbursement of costs of setting up and operating the District's pretreatment program. All fees will be based on actual time and materials plus 20% for indirect costs. Charges and fees may include fees for wastewater discharge permit applications including the cost of processing such applications, fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing an Industrial User's discharge, and fees for reviewing monitoring reports submitted by the users.

MCS D Resolution 2012-30 includes specific charges for reimbursement of costs for setting up the District's pretreatment program. As specified in MCS D Resolution 2012-30, your facility will be assessed a monthly fee of \$11.91 from 2012 through 2017. Any additional services for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing an Industrial User's discharge, and reviewing monitoring reports submitted by the users will be billed to your account on a time and materials plus 20 %.

If you have any questions, please contact the Pretreatment Coordinator James Henry at (707) 839-3251.

Greg Orsini
General Manager

Attachments: MCS D Wastewater Discharge Permit Application Form

PHYSICAL ADDRESS:

1656 SUTTER ROAD
McKINLEYVILLE, CA 95519

MAILING ADDRESS:

P.O. BOX 2037
McKINLEYVILLE, CA 95519



mckinleyvillecsd.com

MAIN OFFICE:

PHONE: (707) 839-3251
FAX: (707) 839-8456

PARKS & RECREATION OFFICE:

PHONE: (707) 839-9003
FAX: (707) 839-5964

Date

McKinleyville Community Services District (MCSD) Wastewater Discharge Permits

Dear **Facility Name**:

The facility located at **Situs Address** operating as **Facility name** is an Industrial User (IU) because it is a commercial or industrial facility whose wastes enter local sewers, (*MCSD Rule 1.33*). This facility will likely be designated as a **Non-Significant Categorical Industrial User** and is required to obtain a Wastewater Discharge Permit.

MCSD Rule 1.68 allows the MCSD to determine that an Industrial User subject to categorical Pretreatment Standards is a **Non-Significant Categorical Industrial User** on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater and the following conditions are met:

- i) The Industrial User, prior to MCSD's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;
- ii) The Industrial User annually submits the certification statement required in Rule 26.10.02 (b), together with any additional information necessary to support the certification statement; and
- iii) The Industrial User never discharges any untreated concentrated wastewater.

In order to verify the classification of the facility, the discharger is required to complete the attached wastewater discharge permit application form, sign, and return to the MCSDs pretreatment coordinator James Henry within 30 days.

MCSD Rule 26.11.04 requires that within (45) days of receipt of a complete permit application, including additional information requested, the MCSD General Manager will determine whether or not to issue an individual wastewater discharge permit or a general permit.

MCSD Resolution 2012-30 includes specific charges for reimbursement of costs for setting up the District's pretreatment program. As specified in MCSD Resolution 2012-30, your facility will be assessed a monthly fee of \$3.97 from 2012 through 2017. Any additional services for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing an Industrial User's discharge, and reviewing monitoring reports submitted by the users will be billed to your account on a time and materials plus 20 %.

If you have any questions, please contact the Pretreatment Coordinator James Henry at (707) 839-3251.

Greg Orsini
General Manager

Attachments: MCSD Wastewater Discharge Permit Application Form

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McKINLEYVILLE, CA 95519

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PARKS & RECREATION OFFICE:

PHONE: (707) 839-9003
FAX: (707) 839-5964

Date

McKinleyville Community Services District (MCSD) Wastewater Discharge Permits

Dear **Facility Name**:

The facility located at **Situs Address** operating as **Facility name** is an Industrial User (IU) because it is a commercial or industrial facility whose wastes enter local sewers, (*MCSD Rule 1.33*).

The MCSD General Manager has the authority to require other Users to obtain individual wastewater discharge permits or general permits as necessary to carry out the purposes of this ordinance, (*MCSD Rule 26.11.01*).

The MCSD General Manager is requiring **Facility Name** to obtain an individual wastewater discharge permit or general permit.

Attached is a wastewater discharge permit application form that is to be completed, signed, and returned within 30 days to the MCSDs pretreatment coordinator James Henry.

MCSD Rule 26.11.04 requires that within (45) days of receipt of a complete permit application, including additional information requested, the MCSD General Manager will determine whether or not to issue an individual wastewater discharge permit or a general permit.

MCSD Rule 27.09 authorizes the District to adopt reasonable charges and fees for reimbursement of costs of setting up and operating the District's pretreatment program. All fees will be based on actual time and materials plus 20% for indirect costs. Charges and fees may include fees for wastewater discharge permit applications including the cost of processing such applications, fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing an Industrial User's discharge, and fees for reviewing monitoring reports submitted by the users.

MCSD Resolution 2012-30 includes specific charges for reimbursement of costs for setting up the District's pretreatment program. As specified in MCSD Resolution 2012-30, your facility will be assessed a monthly fee of \$3.97 from 2012 through 2017. Any additional services for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing an Industrial User's discharge, and reviewing monitoring reports submitted by the users will be billed to your account on a time and materials plus 20 %.

If you have any questions, please contact the Pretreatment Coordinator James Henry at (707) 839-3251.

Greg Orsini
General Manager

Attachments: MCSD Wastewater Discharge Permit Application Form

MCKINLEYVILLE COMMUNITY SERVICES DISTRICT TECHNICAL BASIS FOR WASTEWATER LIMITS

Prepared for:
McKinleyville Community Services District
1656 Sutter Road
McKinleyville, California 95519

January 10, 2012

Prepared by:
Orrin Plocher and Stan Thiesen

of



Freshwater Environmental Services

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1.0 INTRODUCTION

Federal water quality regulations require local governments to prevent the introduction of certain pollutants into their Publicly Owned Treatment Works (POTW), in order to prevent interference with wastewater treatment processes and pass through of pollutants, and provide for the use and disposal of municipal biosolids (sludge). This is accomplished through development and implementation of specific effluent limits (local limits) for industrial users. These limits are developed to reflect the specific needs and capabilities of individual POTWs and protect the waterbody to which the POTW discharges.

Freshwater Environmental Services (FES) has assisted McKinleyville Community Services District (MCSD or District) in the development of this report on the technical basis for wastewater local limits which outlines the steps required for local limits development/update. The approach used followed the general principles contained in the U.S. Environmental Protection Agency's (EPA's) 2004 *Local Limits Development Guidance* (EPA, 2004). The *Local Limits Development Guidance* is intended for use by a wide range of municipalities with POTWs. McKinleyville CSD provides services to a small community of predominantly residential users. This report contains the following elements:

- The Wastewater Management Facility (WWMF) and collection system is described in Section 2.0;
- The existing local limits and development approach is presented in Section 3.0;
- The pollutants of concern are presented in Section 4.0;
- The data collection and analysis is described in Section 5.0;
- The maximum allowable industrial headworks loading calculations are described in Section 6.0;
- Collection system concerns and other practical considerations are presented in Sections 7.0 and 8.0;
- A summary of the proposed local limits is presented in Section 9.0; and
- The references cited in this report are listed in Section 10.0.

2.0 WASTEWATER MANAGEMENT FACILITY DESCRIPTION

2.1 Facility, Location and Ownership

The MCSD owns and operates a WWMF located at 675 Hiller Road in McKinleyville, Humboldt County, California (Figure 1 and Figure 2). Discharges from the WWMF are regulated by National Pollution Discharge Elimination System (NPDES) permit number CA0024490.

2.2 Facility Description

Information within the NPDES permit indicates that the MCSD owns and operates a secondary treatment facility. The treatment system consists of four aerated ponds followed by treatment wetlands. During the discharge season, which extends from October 1 through May 14, wastewater is discharged from Discharge Point 001 to the Mad River, a water of the United States within the Blue Lake hydrologic area 109.10 and to percolation ponds adjacent to the Mad River Estuary when the flow in the Mad River is less than 200 cubic feet per second (cfs). During summer, a portion of the wastewater treatment plant effluent is used to irrigate the Hiller storm water treatment marsh where it provides moisture to sustain wetland vegetation through the dry season. Runoff producing rainfall events cause the Hiller storm water treatment marsh to overflow into an unnamed tributary to the Mad River estuary. Prior to the onset of the wet season and storm water overflows from the marsh, the wastewater application to the treatment marsh is ceased and the treatment marsh is allowed to dry through evaporation and evapotranspiration.

Figure 1 provides a topographic map of the region around the facility. Figure 2 is a site plan with arrows indicating the flow of wastewater through the facility. The calculated hydraulic residence time from headworks to effluent is approximately 45 days.

2.3 Collection System Description

The MCSD collection system has some unique characteristics that affect the local limits approach. The collection system is dominated by residential users. There are Food Service Establishments (FSEs) that generate Fats, Oils and Greases (FOG) that are inspected monthly by MCSD Pretreatment Staff. Beyond FSEs, industrial users are limited in numbers and potential impact. Non-FOG industrial users with the highest potential impact to the system include: one septage/FOG hauler/processor, one micro-brewery, one carwash, one drycleaner, one jeweler (zero discharge) and seven vehicle maintenance facilities with oil-water separators. Most of these non-FOG industrial users operate only during the day from the hours of 7:00 am to 7:00 pm. There are no manufacturing facilities that operate at night.

3.0 EXISTING LOCAL LIMITS AND DEVELOPMENT APPROACH

The MCSDs existing local limits are shown in Table 1. The MCSD has evaluated the existing local limits to determine if they are still protective of the POTW or need to be modified. The MCSD used the Maximum Allowable Headworks Loading (MAHL) calculation methodology generally described in EPA's 2004 *Local Limits Development Guidance* to evaluate the existing limits, and also to establish its revised local limits. The MAHL methodology includes four basic steps:

1. Determine the Pollutants of Concern (POC);
2. Collect and analyze data;
3. Calculate MAHLs for each POC; and
4. Designate and implement the local limits.

After completing the MAHL methodology, local limits were adjusted to address collection system concerns and practical considerations. This report describes the process and resulting local limits.

4.0 POLLUTANTS OF CONCERN

A Pollutant of Concern (POC) is any pollutant that may be discharged to the POTW in sufficient amounts to pass through treatment processes, interfere with treatment processes, jeopardize worker health and safety, or cause operational problems. A POC may also include pollutants in the applicable NPDES permit or biosolids quality regulations. In order to determine the POCs to be evaluated, the MCSD considered the following:

- MCSD NPDES permit requirements;
- Biosolids quality regulations;
- Treatment process inhibition;
- Water Quality Criteria;
- Known Industrial Users;
- Sampling and violation history at the WWMF;
- Current local limits; and
- EPA guidance documents.

A summary of compounds detected in effluent samples since 2008 is presented in Table 2. Based on the frequency of detection, concentrations of analytes, comparison to conservative inhibition concentrations, and water quality objectives, some of the analytes are not being considered as potential POCs. The MCSDs potential POCs, along with applicable listing criteria, are included in Table 3.

5.0 SAMPLING AND MONITORING

All sampling was conducted under normal operating conditions during dry weather. Specific sampling for local limits development was determined following an extensive review of existing data and potential non-domestic sources. The MCSD also gathered data regarding total POTW flow, domestic wastewater flow, and industrial wastewater flow. The MCSD used this data to calculate the load of each POC coming into the POTW. Wastewater samples were 12-hour, flow proportioned, composited grab samples. Composite grab samples of influent, consisting of five subsamples collected over a 12-hour period from 6:00 AM to 6:00 PM on September 21 and September 22, 2011.

The local limits sampling locations are discussed below:

Treatment Plant Sampling:

Headworks Influent – The Plant influent was sampled for two consecutive weekdays to determine the presence of pollutants of concern and to provide data for determining the treatment process removal efficiency. Removal efficiencies were used to convert biological process inhibition data into corresponding allowable headworks loadings.

Final Effluent – MCSD has an extensive dataset of effluent data collected since 2008 (summarized in Table 2) that was used for this investigation.

Collection System Sampling:

Domestic Collection System – Since the collection system is dominated by residential users the average influent concentrations were used to model the domestic contribution with the exception of copper and lead. MCSD has a historical dataset for lead and copper from various locations within the residential collection system that was averaged and used for this investigation.

Commercial Collection System – The MCSD commercial collection system is limited in size and is dominated by domestic wastewater discharges from commercial facilities. For this reason, the MCSD used the average influent concentrations as representative of commercial sewer discharges for the purpose of MAHL determination.

Significant Industrial Users – For the purpose of MAHL determination previous data collected from a septage/FOG hauler/processor was averaged and used to characterize the contribution from significant industrial users.

5.1 Treatment Plant Sampling

Influent samples were collected at a location prior to mixing with other wastewater streams. Analytical results from the samples will be used to aid in the local limits calculations.

5.2 Sample Handling

Wastewater samples were collected in laboratory provided containers labeled and immediately placed in an ice-cooled chest for delivery to an analytical laboratory certified

by the California Department of Health Services for the required analyses. All sample handling included proper chain-of-custody documentation.

5.3 Analytical Methods

All wastewater samples were analyzed utilizing the methods indicated in Table 4.

5.4 Quality Assurance/Quality Control

Following receipt of the laboratory analytical report all laboratory (Quality Control) QC batches were checked to ensure that the correct number of samples were analyzed, holding times were not exceeded, surrogate recoveries were within stated control limits, and that the Laboratory Method Blank, Matrix Spikes (MS), Matrix Spike Duplicates (MSD), Laboratory Control Samples (LCS) and Laboratory Control Sample Duplicates (LCSD) were all tested and within the acceptable limits.

6.0 CALCULATING THE MAXIMUM ALLOWABLE HEADWORKS LOADING

The Maximum Allowable Headworks Loading (MAHL) is the estimated maximum loading of a pollutant that can be received by a POTW without inhibiting treatment processes or exceeding any applicable environmental criteria. The District followed these steps to determine the MAHL for each POC:

1. Determine the removal efficiencies for each POC;
2. Calculate the Allowable Headworks Loading (AHL) for each POC, for all applicable environmental criteria, based on influent flow rates and POC removal efficiencies; and
3. Designate the MAHL as the strictest AHL.

The District used spreadsheets developed by USEPA Region 8 to facilitate calculation of AHLs, MAHLs, and the proposed local limits (Appendix A).

In cases where influent and effluent results were less than the analytical detection limit a concentration of one-half the detection limit was used in the spreadsheet.

The MCSD calculated removal efficiency for each POC by comparing average effluent concentration to average influent concentration. In cases when data did not allow calculation of removal efficiencies the District used removal efficiency values from literature. In some cases, effluent concentration exceeded influent concentration, which would suggest a net addition of the pollutant. In this case, the District either assumed zero removal efficiency or used USEPA literature values. Removal efficiencies for each POC are listed in Table 5.

The environmental criteria the District used to calculate MAHLs are shown in Table 6 and Table 7. NPDES Permit Limits means limits contained in the District's discharge permit. Acute Toxicity Criteria mean limits necessary to prevent toxic effects (usually death) to aquatic life in the Mad River resulting from short term exposure to the District's wastewater discharge. Maximum Contaminant Level (MCL) means limits necessary to protect the Mad River as a regional water supply. Chronic Toxicity Criteria mean limits necessary to prevent toxic effects (usually reproductive harm) to aquatic life in the Mad River resulting from long term effects from the District's wastewater discharge. Sludge Criteria mean limits necessary to allow beneficial reuse of the District's sludge (e.g., for land application).

The most stringent daily and monthly MAHLs for each POC are indicated in Table 8. The MAHL for each POC, based on the most stringent applicable criteria is highlighted with bold font. The MAHL and the average influent concentration in Table 9 were used to calculate the percentage of MAHL already allocated. The EPA recommends developing local limits for POCs if average influent concentrations exceed 60% of the MAHL. MCSD developed local limits for POCs only if the average influent concentrations exceeded 60% of the MAHL. Based on this, MCSD is establishing local limits for the POCs as indicated in Table 10.

7.0 ADDRESSING COLLECTION SYSTEM CONCERNS

As noted in Table 10, the Maximum Allowable Headworks Loading methodology results in local limits for Biological Oxygen Demand (BOD) and Oil and Grease that would lead to problems in the District's wastewater collection system or inhibit wastewater treatment processes. Adjustments to local limits for each of these pollutants are discussed below.

Biochemical Oxygen Demand (BOD)

BOD is a measure of the organic strength of wastewater. Excessive BOD causes anaerobic conditions in the collection system, which can cause severe odor nuisance and corrosion of the collection system due to formation of hydrogen sulfide and sulfuric acid. To prevent collection system damage, industrial wastewater BOD must be limited to a concentration closer to domestic wastewater quality. The average WWMF influent BOD is currently 295 milligrams per Liter (mg/L). Due to the District's water conservation program, they project that BOD concentrations may increase by up to 20% (i.e., if indoor water use decreases 20%, waste loading will remain the same, so the concentration of BOD will increase 20%). The District therefore recommends a local BOD limit of 354 mg/L (average influent concentration plus 20%).

Oil and Grease

Fats, oils, and greases, which are measured in wastewater as Oil and Grease, accumulate and congeal in the collection system and reduce the capacity of pipes and pumps. This increases the possibility of a plugged sewer main which could result in a sewage spill, reduces treatment efficiency, and increases operation and maintenance costs. Ideally, commercial/industrial users would discharge very little or no Oil and Grease to the District's collection system. Zero discharge of Oil and Grease is not practical however, so the local limit for Oil and Grease must be based on what is achievable with reasonable controls. According to EPA's Local Limits Development Guidance (EPA, 2004), an Oil and Grease limit of 100 mg/L is achievable with the application of best management practices or generally available pretreatment (e.g., grease interceptors). The existing MCSD local limits contain two limits for Oil and Grease, 300 mg/L (animal or vegetable) and 100 mg/L (petroleum). The District therefore recommends changing to a single limit for Oil and Grease of 100 mg/L from either source.

8.0 OTHER PRACTICAL CONSIDERATIONS

As noted in Table 10, the Maximum Allowable Headworks Loading methodology results in local limits of zero for copper, lead, molybdenum, nickel, and bis(2-ethylhexyl) phthalate. Limiting these pollutants to zero discharge is not practical because these pollutants are either a normal component of domestic wastewater, prevalent in the District's water supply, or not achievable with reasonable controls. Adjustments to local limits for each of these pollutants was made setting the limit to the average influent concentration as indicated in Table 10.

As noted in Table 10, the Maximum Allowable Headworks Loading methodology results in local limits of zero for 4,4-DDT, a banded pesticide. Based on this MCSD will implement a narrative prohibition in their sewer use ordinance that prohibits discharge of any detectable concentrations of 4,4-DDT. Adjustments to local limits for each of these pollutants was made setting the limit to the average influent concentration as indicated in Table 10.

9.0 SUMMARY OF PROPOSED LOCAL LIMITS

The District collected data throughout its wastewater collection system and treatment plant to determine the influent load, relative contributions of domestic and industrial sources, and removal efficiency of all its pollutants of concern. The District found that local limits for eight pollutants are no longer necessary (arsenic, cadmium, cyanide, mercury, silver, total chromium, total identifiable chlorinated hydrocarbons and Phenolic compounds). Based on EPA guidance for determining local limits, limits are no longer necessary for the above pollutants since current headworks loading is less than 60% of the Maximum Allowable Headworks. These pollutants will be monitored in the future and if headworks loading increases significantly in a given year or reaches 60% of the Maximum Allowable Headworks limits additional actions including the potential implementing a local limits.

Molybdenum, bis(2-ethylhexyl) phthalate, and 4,4-DDT are new pollutants of concern and require a local limits. The District determined the maximum allowable headworks loading for all pollutants of concern. After accounting for domestic sources, the District allotted this loading to industrial sources to establish uniform local limits. The District then adjusted the uniform local limits for BOD, and Oil and Grease to protect the collection system. The maximum allowable headwork loading methodology justified zero discharge for copper, lead, molybdenum, nickel, and bis(2-ethylhexyl) phthalate. However limiting these pollutants to zero discharge is not practical because these pollutants are either a normal component of domestic wastewater, prevalent in the District's water supply, or not achievable with reasonable controls. So the District adjusted local limits for each of these pollutants was made setting the limit to the average influent concentration as indicated in Table 10.

As noted in Table 10, the Maximum Allowable Headworks Loading methodology results in local limits of zero for 4,4-DDT, a banded pesticide. Based on this, MCSD will implement a narrative prohibition in their sewer use ordinance that prohibits discharge of any detectable concentrations of 4,4-DDT. Adjustments to local limits for each of these pollutants was made setting the limit to the average influent concentration as indicated in Table 10.

Based on the above analysis, the District recommends integration of the local limits in Table 10 into the District's sewer use ordinance.

10.0 REFERENCES

California Department of Water Resources. 1965. North Central Hydrographic Area, Volume 1; Southern Portion. Bulletin 142-1.

U.S. Environmental Protection Agency. 2004. Local Limits Development Guidance.

TABLES

TABLE 1
EXISTING LOCAL LIMITS

Pollutant	Local Limit in (mg/L) ppm
Arsenic	0.1
Cadmium	0.2
Copper	2.0
Cyanide	1.0
Lead	1.0
Mercury	0.01
Nickel	1.0
Silver	1.0
Total Chromium	0.5
Zinc	3.0
Oil and Grease (animal or vegetable)	300
Oil and Grease (mineral or petroleum)	100
Total Identifiable Chlorinated Hydrocarbons (which cannot be removed by treatment)	0.02
Phenolic compounds	1.0

TABLE 2
SUMMARY OF POLLUTANTS DETECTED IN EFFLUENT SAMPLES SINCE 2008

Analyte	RESULTS µg/L			Number of Detections	Comments Regarding Sources
	Maximum	Minimum	Average		
3 & 4-Methylphenol	0.6	0.6	0.6	1	Component of creosol.
4,4-DDT	0.53	0.262	0.40	2	Banned pesticide in USA.
Acetone	11.1	2.8	6.95	3	Aerosol paints, architectural coatings, automotive and machinery paints and primers, furniture polish and cleaners, household hard surface cleaners, laundry pre-soaks, pet flea and tick removers, cockroach treatments, laundry starches, lubricating greases and oils, nail enamel and polish and polish remover, particleboard, paints (including interior clear finishes, undercoats and primers), varnish, paint and varnish removers and thinners, liniments for veterinary preparations, pharmaceutical preparations, pre-moistened towelettes, shoe polish, sun tan lotions and oils, and in wood office furniture.
Antimony	0.3	0.1	0.2	2	Fire retardant compound, ceramic & glass additives, paint pigments, rubber vulcanization agents.
Arsenic	0.6	0.5	0.55	2	Agricultural pesticides.
Bis(2-ethylhexyl)phthalate (DEHP)	5	2	3.10	10	Chemical that is added to hard plastics to make them soft.
Bromodichloromethane	0.4	0.1	0.18	6	Disinfection byproduct in the trihalomethane (THM) family.
Butyl benzyl phthalate	1	0.2	0.60	2	Plasticizer for PVC.
Cadmium	0.24	0.05	0.15	2	Pigments, coatings and plating, and as stabilizers for plastics
Carbon tetrachloride	0.3	0.3	0.3	2	Solvent, cleaner persisted as a pesticide to kill insects in stored grain, but in 1970, it was banned in consumer products
Chloroform	3.4	0.8	1.61	9	Disinfection byproduct in the trihalomethane (THM) family.
Chromium	1.5	1.4	1.45	2	Plating.
Copper	24.1	16.1	19.85	4	Plumbing and auto shop brake work
Di-n-butyl phthalate	9	1	4	3	Chemical that is added to hard plastics to make them soft. The plastics that di-n-butyl phthalate is used most in are called polyvinyl chloride.
Lead	0.4	0.2	0.3	4	Electronics, batteries.
Mercury	10.9	5.9	8.4	2	Household bleach, acid and caustic chemicals (e.g., battery acid, household lye, muriatic acid (hydrochloric acid), sodium hydroxide and sulfuric acid), instrumentation containing Mercury (e.g., medical instruments, thermometers, barometers and manometers), dental amalgam (fillings), latex paint (manufactured prior to 1990), batteries, electric lighting (fluorescent lamps, incandescent wire filaments, mercury vapor lamps, ultraviolet lamps), pesticides (restricted and/or banned under FIFRA since 1995), pharmaceuticals (e.g., nasal sprays, cosmetics, contact lens products), household detergents and cleaners, laboratory chemicals, inks and paper coatings, lubrication oils, wiring devices and switches, and imported textiles (Mercury is used as a preservative and is released through laundering).
Methyl tert-Butyl Ether (MTBE)	0.3	0.3	0.3	1	Gasoline additive.
Nickel	2.6	2.4	2.5	2	Electroplating.
Selenium	0.8	0.4	0.6	2	Naturally occurring
Toluene	10.2	0.9	4.10	7	Gasoline component, paint solvent.
Zinc	21.2	13.8	17.5	2	Plating and plumbing

TABLE 3
POLLUTANTS OF CONCERN AND DRIVING FACTORS FOR INCLUSION

Potential Pollutant of Concern	Treatment process inhibition (Nitrification)	Treatment process inhibition (Anaerobic)	Biosolids quality regulations	Revised NPDES permit effluent water quality limit	Water Quality Objectives	Potential industrial user discharge
Conventional Pollutants						
Biochemical Oxygen Demand (BOD)				X	X	X
Nitrate as Nitrogen				X	X	X
Oil and Grease				X	X	X
Settleable Matter				X	X	X
Total Suspended Solid (TSS)				X	X	X
Priority Pollutants Metals & Cyanide						
Arsenic	X	X	X		X	X
Cadmium	X	X	X		X	X
Total Chromium	X	X			X	X
Copper	X	X	X		X	X
Cyanide	X	X			X	
Lead	X	X	X		X	X
Molybdenum			X		X	X
Mercury			X		X	X
Nickel	X	X	X		X	X
Selenium			X		X	X
Silver		X			X	X
Zinc	X	X	X		X	X
Organic Pollutants						
bis(2-ethylhexyl phthalate)				X	X	X
Phenolic Compounds	X				X	X
Carbon Tetrachloride		X		X	X	X
Toluene					X	X
Di-n-butyl phthalate					X	
Pesticides						
α-BHC					X	X
4,4-DDT				X	X	

TABLE 4
PROPOSED ANALYTICAL METHODS FOR POLLUTANTS OF CONCERN

Potential Pollutant of Concern	Analytical Method	Container	Preservative	Holding Time to Extraction	Sample Type
Conventional					
Biochemical Oxygen Demand (BOD)	SM 5210	1L Poly	4 degrees	48 hours	4-12 Grab samples composited over 12 hours.
Nitrate as Nitrogen	EPA 353.2	250ml Poly	4 degrees	48 hours	4-12 Grab samples composited over 12 hours.
Oil and Grease	EPA 1664A	1L Amber Glass x 2	H2SO4	28 days	4-12 Grab samples composited over 12 hours.
Settleable Matter	SM 2540 F	1L Poly	4 degrees	48 hours	4-12 Grab samples composited over 12 hours.
Total Suspended Solid (TSS)	SM 2540 D	1L Poly	4 degrees	7 days	4-12 Grab samples composited over 12 hours.
Priority Pollutants Metals & Cyanide					
Arsenic	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Cadmium	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Total Chromium	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Copper	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Cyanide	SM 4500CN E	500ml Poly	NAOH	14 days	4-12 Grab samples composited over 12 hours.
Lead	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Molybdenum	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Mercury	EPA 1631E	250ml Glass DB	HN03	28 days	4-12 Grab samples composited over 12 hours.
Nickel	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Selenium	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Silver	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Zinc	EPA 200.8	500ml QCP	HN03	6 months	4-12 Grab samples composited over 12 hours.
Organics					
bis(2-ethylhexyl phthalate)	EPA Method 625	1L Amber Glass x 2	4 degrees	14 days	4-12 Grab samples composited over 12 hours.
Di-n-butyl phthalate	EPA Method 626	1L Amber Glass x 3	4 degrees	15 days	4-12 Grab samples composited over 12 hours.
Total Phenolic Compounds	EPA Method 625	500 ml amber	4 degrees	14 days	4-12 Grab samples composited over 12 hours.
Bromodichloromethane	EPA Method 624	40 ml VOAs x 3	HCL, 4 degrees	14 days	4-12 Grab samples composited over 12 hours.
Carbon Tetrachloride	EPA Method 624	40 ml VOAs x 3	HCL, 4 degrees	14 days	4-12 Grab samples composited over 12 hours.
Chloroform	EPA Method 624	41 ml VOAs x 3	HCL, 4 degrees	14 days	4-12 Grab samples composited over 12 hours.
Toluene	EPA Method 624	40 ml VOAs x 3	HCL, 4 degrees	14 days	4-12 Grab samples composited over 12 hours.
Pesticides					
α-BHC	EPA Method 608	1L Amber Glass x 2	4 degrees	7 days	4-12 Grab samples composited over 12 hours.
4,4-DDT	EPA Method 608	1L Amber Glass x 2	4 degrees	7 days	4-12 Grab samples composited over 12 hours.

TABLE 5
REMOVAL EFFECIENCIES FOR POCs

FINAL POTW REMOVAL PERCENT	POLLUTANT
49	Arsenic
64	Cadmium
21	Chromium - total
86	Copper
95	Lead
95	Mercury
75	Molybdenum
55	Nickel
77	Selenium
67	Silver
89	Zinc
59	Cyanide
90	bis(2-ethylhexyl) phthalate
100	Phenol
80	Carbon Tetrachloride
71	Toluene
94	Di-n-butyl phthalate
0	Alpha BHC
0	4,4-DDT
90	BOD
0	Nitrate as Nitrogen
98	Oil & Grease
100	Settleable Matter
89	TSS

TABLE 6
DAILY CRITERIA AND STANDARDS

POLLUTANT	Daily Max/7 Day NPDES PERMIT LIMITS mg/L	STATE ACUTE WQ STDS mg/L	EPA ACUTE H2O QUAL CRITERIA mg/L	FINAL ACUTE CRITERIA mg/L	MCLs mg/L
Arsenic		0.34	0.34	0.3400	0.01
Cadmium		0.002254378	0.0011	0.0023	0.005
Chromium - total		0.02		0.0200	0.05
Copper		0.0078	0.0078	0.0078	1.30
Lead		0.0373	0.0373	0.0373	0.015
Mercury			0.0014	0.00140	0.002
Molybdenum					
Nickel		0.2786	0.2786	0.2786	0.1
Selenium		0.02	0.02	0.0200	0.05
Silver			0.0013	0.0013	0.1
Zinc		0.09	0.0711	0.0900	5
Cyanide		0.022		0.0220	0.15
bis(2-ethylhexyl) phthalate	0.003				0.004
Phenol		0.3	10.2000	0.3000	
Carbon Tetrachloride		0.0005	352.0000	0.0005	0.0005
Toluene			17.5	17.5000	0.15
Di-n-butyl phthalate			0.94	0.9400	0.7
Alpha BHC					0.000015
4,4-DDT	0.0000027	0.0011		0.00110000	
BOD	65				
Chlorine Residual	0.02		0.019	0.0190	4
Nitrate as Nitrogen		10		10.0000	10
Oil & Grease		75		75.0000	
pH		6.5		6.5000	6.5
Settleable Matter	0.2				
TSS		3		3.0000	

TABLE 7
MONTHLY CRITERIA AND STANDARDS

POLLUTANT	Monthly NPDES PERMIT LIMITS mg/L	STATE CHRONIC WQ STDS mg/L	EPA CHRONIC H2O QUAL CRITERIA mg/L	FINAL CHRONIC CRITERIA mg/L	STATE HUMAN HEALTH CRITERIA mg/L	EPA HUMAN HEALTH CRITERIA mg/L	Final HUMAN HEALTH CRITERIA mg/L	STATE CHRONIC AGRICULTURE mg/L
Arsenic		0.15	0.15	0.1500				0.1
Cadmium		0.001517631	0.0002	0.0015				0.01
Chromium - total		0.002		0.0020				
Copper		0.0055	0.0055	0.0055	1.3	1.3	1.3	0.2
Lead		0.0015	0.0015	0.0015				5
Mercury			0.00077	0.00077				
Molybdenum								0.01
Nickel		0.1621	0.0310	0.1621	0.61		0.61	0.2
Selenium		0.0046	0.005	0.0046		0.17	0.17	0.02
Silver								
Zinc		0.071084278	0.0711	0.0711		7.2	7.2	2
Cyanide		0.0052		0.0052		0.14	0.14	0.17
bis(2-ethylhexyl) phthalate	0.0018							
Phenol			2.5600	2.5600	4.2		4.2	
Carbon Tetrachloride		0.00025			0.0001	0.0005	0.0001	
Toluene						0.04	0.04	
Di-n-butyl phthalate			0.003	0.0030				
Alpha BHC								
4,4-DDT	0.00000059	0.000001		0.00000100	0.0001	0.0035	0.0001	
BOD	45							
Nitrate as Nitrogen	10							
Oil & Grease		25		25.0000				
Settleable Matter	0.1							
TSS	83							

TABLE 8
MOST STRINGENT DAILY AND MONTHLY MAHLS

POLLUTANT	MOST STRINGENT DAILY CRITERIA LBS/DAY	NAME OF MAHL FOR DAILY MAX LIMITS	MOST STRINGENT MONTHLY CRITERIA LBS/DAY	NAME OF MAHL FOR MONTHLY LIMITS
Arsenic	21.30	MCL	0.004	Biosolids
Cadmium	6.80	WQ-ACUTE	0.003	Biosolids
Chromium - total	27.51	WQ-ACUTE	0.200	Biosolids
Copper	59.56	WQ-ACUTE	0.090	Biosolids
Lead	320.13	MCL	0.016	Biosolids
Mercury	30.42	WQ-ACUTE	0.001	Biosolids
Molybdenum	No Criteria	No Criteria	0.005	Biosolids
Nickel	242.13	MCL	0.039	Biosolids
Selenium	94.48	WQ-ACUTE	0.007	Biosolids
Silver	4.27	WQ-ACUTE	0.009	Biosolids
Zinc	860.93	WQ-ACUTE	0.162	Biosolids
Cyanide	58.30	WQ-ACUTE	13.780	WQ-CHRONIC
bis(2-ethylhexyl) phthalate	0.32	NPDES Daily	0.193	NPDES Monthly
Phenol	6844961.59	WQ-ACUTE	58410338.918	WQ-CHRONIC
Carbon Tetrachloride	2.66	WQ-ACUTE	0.531	HH
Toluene	552.46	MCL	147.322	HH
Di-n-butyl phthalate	11915.30	MCL	51.066	WQ-CHRONIC
Alpha BHC	0.02	MCL	No Criteria	No Criteria
4,4-DDT	0.000029	NPDES Daily	0.000006	NPDES Monthly
BOD	6614.60	NPDES Daily	4579.339	NPDES Monthly
Nitrate as Nitrogen	10865.0184	WQ-ACUTE	106.418	NPDES Monthly
Oil & Grease	3789175.17	WQ-ACUTE	1263058.389	WQ-CHRONIC
Settleable Matter	425673602.59	NPDES Daily	212836801.294	NPDES Monthly
TSS	30353.20	WQ-ACUTE	8225.222	NPDES Monthly

Bold indicates the Maximum Allowable Headworks Loading.

TABLE 9
PERCENT MAHL

POLLUTANT	FINAL MAHL FOR LOCAL LIMITS LBS/DAY	POTW AVERAGE INFLUENT LBS/DAY	PERCENTAGE OF MAHL
Arsenic	0.0043	0.0005	12%
Cadmium	0.0031	0.0005	17%
Chromium - total	0.2003	0.0122	6%
Copper	0.0897	1.3769	1534%
Lead	0.0162	0.0583	359%
Mercury	0.0009	0.0002	25%
Molybdenum	0.0051	0.0498	971%
Nickel	0.0391	0.0551	141%
Selenium	0.0067	0.0014	21%
Silver	0.0093	0.0016	17%
Zinc	0.1620	1.4299	883%
Cyanide	13.7800	0.0001	0.0004%
bis(2-ethylhexyl) phthalate	0.1929	0.2489	129%
Phenol	6844961.5920	0.2595	0.000004%
Bromodichloromethane	246.2738	0.0169	0.007%
Carbon Tetrachloride	0.531	0.0233	4%
Chloroform	1.1346	0.0175	2%
Toluene	147.3223	0.1324	0%
Di-n-butyl phthalate	51.0656	0.2489	0%
Alpha BHC	0.0163	0.0001	1%
4,4-DDT	0.0000063	0.0002	2783%
BOD	4579.3390	3124.5810	68%
Nitrate as Nitrogen	106.4000	0.0001	0.0001%
Oil & Grease	1263058.3890	492.5187	0.04%
Settleable Matter	212836801.2935	211.8360	0.0001%
TSS	8225.2223	3071.6220	37%

Bold indicated percent MAHL over 60%.

TABLE 10
PROPOSED LOCAL LIMITS

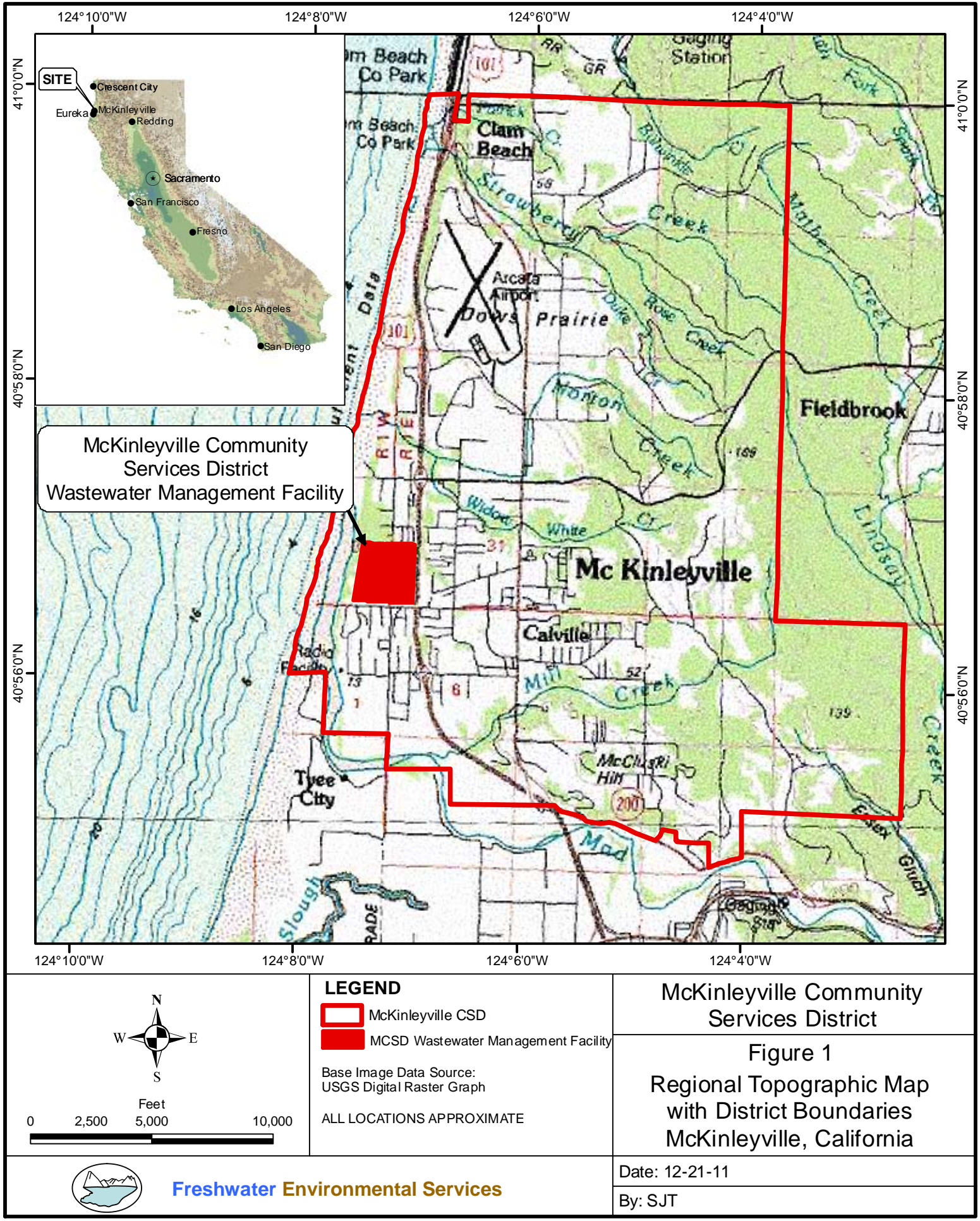
POLLUTANT	UNIFORM CONCENTRATION (mg/L)	PROPOSED DAILY MAXIMUM LIMIT (mg/L)
Copper	0 Discharge	0.13 ¹
Lead	0 Discharge	0.0055 ¹
Molybdenum	0 Discharge	0.0047 ¹
Nickel	0 Discharge	0.0052 ¹
Zinc	0 Discharge	0.135 ¹
bis(2-ethylhexyl) phthalate	0 Discharge	0.0235 ¹
4,4-DDT	0 Discharge	ND
Oil and Grease	28553.0658	100 ³
BOD	4845.0376	354 ²

1- Proposed limits based on average influent concentrations.

2- Proposed limits based on average influent concentration plus 20 %.

3- Proposed local limit based on According to EPA's Local Limits Development Guidance (EPA, 2004).

FIGURES





0 100 200 400 600 800
Feet

LEGEND

➔ Flow Direction

□ MCSD Ponds

Base Image Data Source:
Obtained from the Humboldt Bay
Harbor, Recreation and Conservation
District. Image date June, 2009.

ALL LOCATIONS APPROXIMATE

McKinleyville Community
Services District

Figure 2
MCSD Wastewater
Management Facility
Site Plan

Date: 12-21-11

By: SJT



Freshwater Environmental Services

APPENDIX A

Region 8 EPA Spreadsheets

TABLE 1 - GENERAL DATA ENTRY	
POTW NAME:	McKinleyville Community Services District
POTW HIGHEST MONTHLY AVERAGE FLOW (MGD):	1.276
DOMESTIC FLOW (MGD):	1.185116809
SIU FLOW (MGD): (Steve Septic Data)	0.005089459
COMMERCIAL FLOW (MGD):	0.090883191
TRUCKED AND HAULED WASTE FLOW (MGD):	0
COMMERCIAL FLOW AS A % OF ALL NON-DOMESTIC	95
TOTAL COMMERCIAL FLOW AS A % OF TOTAL POTW FLOW	7
TOTAL NON-DOMESTIC FLOW AS A % OF TOTAL POTW FLOW	8
SPECIFIC GRAVITY OF SLUDGE TO DISPOSAL (kg/l)	1
SLUDGE FLOW TO DISPOSAL (MGD):	0.000205
% SOLIDS TO DISPOSAL (%)	3
BIOSOLIDS TABLE (1,3 OR "O" THER) BASED ON DISPOSAL OPTION:	3
ARE YOU USING TABLE 2 FOR BIOSOLIDS (Y/N)?:	N
SITE AREA (ACRES):	100
SITE LIFE (YEARS):	100
CHRONIC RECEIVING WATER FLOW (MGD):	129
ACUTE RECEIVING WATER FLOW (MGD):	129
HARDNESS FOR METALS CALCULATIONS (MG/L):	54
IS YOUR RECEIVING WATER A DRINKING WATER SUPPLY (Y/N)?:	Y
APPLICABLE STANDARDS (ACUTE, CHRONIC, BOTH):	B

1 Highest monthly average in 2010 (February)

B	C	D	E	F	G	H
	MOST STRINGENT OF DAILY AND MONTHLY					
TABLE 11: Daily LOCAL LIMIT SUMMARY	DAILY AVERAGE LOCAL LIMIT INFORMATION					
	MAIL	UNIFORM	MACL	PROPOSED	PROPOSED	
	FOR SIUs	CONCENTRATION	FOR COMMERCIAL	DAILY MAXIMUM	MACL FOR	
POLLUTANT	LBS/DAY	FOR SIUs (MG/L)	USERS (LBS/DAY)	LIMIT (MG/L)	COMMERCIAL USERS	POLLUTANT
ARSENIC	0.000189	0.0045	0.0032	NA		ARSENIC
CADMIUM	0.000130	0.0031	0.0022	NA		CADMIUM
CHROMIUM - TOTAL	0.009458	0.2235	0.1594	NA		CHROMIUM - TOTAL
COPPER	0 Discharge	0 Discharge	0 Discharge	0.13 ¹		COPPER
LEAD	0 Discharge	0 Discharge	0 Discharge	0.0055 ¹		LEAD
MERCURY	0.0000341	0.0008	0.0006	NA		MERCURY
MOLYBDENUM	0 Discharge	0 Discharge	0 Discharge	0.0047 ¹		MOLYBDENUM
NICKEL	0 Discharge	0 Discharge	0 Discharge	0.0052 ¹		NICKEL
SELENIUM	0.000261	0.0062	0.0044	NA		SELENIUM
SILVER	0.000386	0.0091	0.0065	NA		SILVER
ZINC	0 Discharge	0 Discharge	0 Discharge	0.135 ¹		ZINC
Cyanide	0.6945	16.4094	11.7075	NA		Cyanide
bis(2-ethylhexyl) phthalate	0 Discharge	0 Discharge	0 Discharge	0.0235 ¹		bis(2-ethylhexyl) phthalate
Phenol	344986.0507	8151085.7263	5815479.1400	NA		Phenol
Bromodichloromethane	12.4113	293.2457	209.2192	NA		Bromodichloromethane
Carbon Tetrachloride	0.0256	0.6038	0.4308	NA		Carbon Tetrachloride
Chloroform	0.0563	1.3296	0.9486	NA		Chloroform
Toluene	7.4181	175.2702	125.0484	NA		Toluene
Di-n-butyl phthalate	2.5607	60.5024	43.1661	NA		Di-n-butyl phthalate
Alpha BHC	0.0008	0.0194	0.0139	NA		Alpha BHC
4,4-DDT	0 Discharge	0 Discharge	0 Discharge	ND		4,4-DDT
BOD	205.0611	4845.0376	3456.7438	354 ²		BOD
Chlorine Residual	#VALUE!	#VALUE!	#VALUE!	NA		Chlorine Residual
Nitrate as Nitrogen	0 Discharge	0 Discharge	0 Discharge	NA		Nitrate as Nitrogen
Oil & Grease	63497.6287	1500276.9354	1070388.5979	100 ³		Oil & Grease
pH	401.3925	9483.8163	6766.3300	NA		pH
Settleable Matter	10726974.7852	253449352.1897	180826146.3790	NA		Settleable Matter
TSS	414.5512	9794.7218	6988.1488	NA		TSS

NA Local limit not applicable. Current headworks loading is less than 60 % of Maximum Allowable Headworks Loading.

¹ Proposed limits based on average influent concentrations.

² Proposed limits based on average influent concentration plus 20 %.

³ Proposed limits based EPA Guidance.

B	C	D	E	F	G	H	I	
Daily								
TABLE 2: CRITERIA AND STANDARDS					OTHER CRITERIA			
	Daily Max/7 Day	STATE	EPA ACUTE	FINAL				STATE
	NPDES PERMIT	ACUTE	H2O QUAL	ACUTE				ACUTE
	LIMITS	WQ STDS	CRITERIA	CRITERIA	MCLs			WQ STDS
POLLUTANT	MG/L	MG/L	MG/L	MG/L	MG/L		POLLUTANT	Source of Acute WQ Goals
ARSENIC		0.34	0.34	0.3400	0.01		ARSENIC	CA Inland Surface Waters, CA Toxic Rules, (max 1 hour average.)
CADMIUM		0.0022544	0.0011	0.0023	0.005		CADMIUM	Agricultural Water Quality Goals, (Food & Ag. Org. of United Nations)
CHROMIUM - TOTAL		0.02		0.0200	0.05		CHROMIUM - TOTAL	CA Ocean Plan, Marine Aquatic Life Protection
COPPER		0.0078	0.0078	0.0078	1.30		COPPER	Saltwater Aquatic Life Protection, Maximum Concentration (1-hour Average)
LEAD		0.0373	0.0373	0.0373	0.015		LEAD	CA Toxics Rule (CTR) Criteria, Saltwater Aquatic Life Protection, Maximum Concentration (1-hour Ave.)
MERCURY			0.0014	0.00140	0.002		MERCURY	CA Ocean Plan, Marine Aquatic Life Protection, Instantaneous Maximum
MOLYBDENUM							MOLYBDENUM	
NICKEL		0.2786	0.2786	0.2786	0.1		NICKEL	CA Toxics Rule (CTR) Criteria, Saltwater Aquatic Life Protection, Maximum Concentration (1-hour Ave.) pH dependent.
SELENIUM		0.02	0.02	0.0200	0.05		SELENIUM	CA Toxics Rule (CTR) Criteria, Freshwater Aquatic Life Protection, Maximum Concentration (1-hour Ave.)
SILVER			0.0013	0.0013	0.1		SILVER	Natl. Recommended Water Quality Criteria, Saltwater Aquatic Life Protection, Maximum (Instantaneous)
ZINC		0.09	0.0711	0.0900	5		ZINC	Natl. Recommended Water Quality Criteria, Saltwater Aquatic Life Protection, Maximum Concentration (1-hour Ave.)
Cyanide		0.022		0.0220	0.15		Cyanide	CA Toxics Rule (CTR) Criteria, Freshwater Aquatic Life Protection, Maximum Concentration (1-hour Ave.)
bis(2-ethylhexyl) phthalate	0.003				0.004		bis(2-ethylhexyl) phthalate	CA Toxics Rule (CTR) Criteria, Inland Surface Water, Human Health Protection (30 day Ave.)
Phenol		0.3	10.2000	0.3000			Phenol	CA Ocean Plan, Marine Aquatic Life Protection, Instantaneous Maximum
Bromodichloromethane		0.017	11.0000	0.0170	0.08		Bromodichloromethane	Natl. Recommended Water Quality Criteria, 1 in million cancer, fish consumption only.
Carbon Tetrachloride		0.0005	352.0000	0.0005	0.0005		Carbon Tetrachloride	Natl. Recommended Water Quality Criteria, Human Health, 1 in million cancer, fish consumption only.
Chloroform			28.9000	28.9000	0.08		Chloroform	Natl. Recommended Water Quality Criteria, Human Health, 1 in million cancer, fish consumption only.
Toluene			17.5	17.5000	0.15		Toluene	Natl. Recommended Water Quality Criteria, Human Health, 1 in million cancer, fish consumption only.
Di-n-butyl phthalate			0.94	0.9400	0.7		Di-n-butyl phthalate	Natl. Recommended Water Quality Criteria, Freshwater Aquatic Life Protection, Acute
Alpha BHC					1.5E-05		Alpha BHC	Natl. Recommended Water Quality Criteria, Human Health, 1 in million cancer, fish consumption only.
4,4-DDT	0.0000027	0.0011		0.00110000			4,4-DDT	Natl. Recommended Water Quality Criteria, Human Health, 1 in million cancer, fish consumption only.
BOD	65						BOD	
Chlorine Residual	0.02		0.019	0.0190	4		Chlorine Residual	Natl. Recommended Water Quality Criteria, Freshwater Aquatic Life Protection, Acute
Nitrate as Nitrogen		10		10.0000	10		Nitrate as Nitrogen	Natl. Recommended Water Quality Criteria, Human Health, water and fish consumption.
Oil & Grease		75		75.0000			Oil & Grease	CA Ocean Plan, Marine Aquatic Life Protection, Instantaneous Maximum
pH		6.5		6.5000	6.5		pH	Natl. Recommended Water Quality Criteria, Freshwater Aquatic Life Protection, Maximum (Instantaneous).
Settleable Matter	0.2						Settleable Matter	CA Ocean Plan, Marine Aquatic Life Protection, Instantaneous Maximum
TSS		3		3.0000			TSS	CA Ocean Plan, Marine Aquatic Life Protection, Instantaneous Maximum

Monthly										
TABLE 3: CRITERIA AND STANDARDS									OTHER CRITERIA	
	Monthly	STATE	EPA CHRONIC	FINAL		STATE	EPA	Final		
	NPDES PERMIT	CHRONIC	H2O QUAL	CHRONIC		HUMAN HEALTH	HUMAN HEALTH	HUMAN HEALTH	State	
	LIMITS	WQ STDS	CRITERIA	CRITERIA		CRITERIA	CRITERIA	CRITERIA	Chronic Agriculture	
POLLUTANT	MG/L	MG/L	MG/L	MG/L	POLLUTANT	MG/L	MG/L	MG/L	mg/l	POLLUTANT
ARSENIC		0.15	0.15	0.1500	ARSENIC				0.1	ARSENIC
CADMIUM		0.001517631	0.000171	0.0015	CADMIUM				0.01	CADMIUM
CHROMIUM - TOTAL		0.002		0.0020	CHROMIUM - TOTAL					CHROMIUM - TOTAL
COPPER		0.005510123	0.0055	0.0055	COPPER	1.3	1.3	1.3	0.2	COPPER
LEAD		0.00145205	0.0015	0.0015	LEAD				5	LEAD
MERCURY			0.000770	0.00077	MERCURY					MERCURY
MOLYBDENUM					MOLYBDENUM				0.01	MOLYBDENUM
NICKEL		0.1621	0.0310	0.1621	NICKEL	0.61		0.61	0.2	NICKEL
SELENIUM		0.0046	0.005	0.0046	SELENIUM		0.17	0.17	0.02	SELENIUM
SILVER					SILVER					SILVER
ZINC		0.0711	0.0711	0.0711	ZINC		7.2	7.2	2	ZINC
Cyanide		0.0052		0.0052	Cyanide		0.14	0.14	0.17	Cyanide
bis(2-ethylhexyl) phthalate	0.0018				bis(2-ethylhexyl) phthalate					bis(2-ethylhexyl) phthalate
Phenol			2.56	2.5600	Phenol	4.2		4.2		Phenol
Bromodichloromethane					Bromodichloromethane					Bromodichloromethane
Carbon Tetrachloride		0.00025		0.0003	Carbon Tetrachloride	0.0001	0.0005	0.0001		Carbon Tetrachloride
Chloroform			1.24	1.2400	Chloroform	0.001	0.0011	0.001		Chloroform
Toluene					Toluene		0.04	0.04		Toluene
Di-n-butyl phthalate			0.003	0.0030	Di-n-butyl phthalate					Di-n-butyl phthalate
Alpha BHC					Alpha BHC					Alpha BHC
4,4-DDT	0.00000059	0.000001		0.000001	4,4-DDT	0.0001	0.0035	0.0001		4,4-DDT
BOD	45				BOD					BOD
Chlorine Residual	0.01		0.011	0.0110	Chlorine Residual		0.7	0.7		Chlorine Residual
Nitrate as Nitrogen	10				Nitrate as Nitrogen					Nitrate as Nitrogen
Oil & Grease		25		25.0000	Oil & Grease					Oil & Grease
pH					pH					pH
Settleable Matter	0.1				Settleable Matter					Settleable Matter
TSS	83				TSS					TSS

TABLE 4: INFLUENT AND EFFLUENT DATA									
	AVERAGE	POTW			AVERAGE	POTW			
	POTW	FLOW	COMMENT	POTW	POTW	FLOW	COMMENT	POTW	
	INFLUENT		AND	INFLUENT	EFFLUENT		AND	EFFLUENT	
POLLUTANT	MG/L	MGD	NOTES	LBS/DAY	MG/L	MGD	NOTES	LBS/DAY	POLLUTANT
ARSENIC	0.00005	1.27	ND 1/2 MDL	0.00052959	0.000466667	1.27	2008-2011 Data, Ave. of all analysis.	0.00494284	ARSENIC
CADMIUM	0.00005	1.27	ND 1/2 MDL	0.00052959	9.66667E-05	1.27	2008-2011 Data, Ave. of all analysis.	0.00102387	CADMIUM
CHROMIUM - TOTAL	0.00115	1.27	Ave. Influent data	0.01218057	0.001333333	1.27		0.0141224	CHROMIUM - TOTAL
COPPER	0.13	1.27	Ave. Influent data	1.376934	0.01854	1.27		0.19637197	COPPER
LEAD	0.0055	1.27	Ave. Influent data	0.0582549	0.00028	1.27		0.0029657	LEAD
MERCURY	0.000022	1.27	ND 1/2 MDL	0.00023302	0.007486667	1.27		0.07929728	MERCURY
MOLYBDENUM	0.0047	1.27	Ave. Influent data	0.04978146		1.27			MOLYBDENUM
NICKEL	0.0052	1.27	Ave. Influent data	0.05507736	0.002333333	1.27		0.0247142	NICKEL
SELENIUM	0.000135	1.27	ND 1/2 MDL	0.001429893	0.000533333	1.27		0.00564896	SELENIUM
SILVER	0.00015	1.27	ND 1/2 MDL	0.00158877	0.00005	1.27	NDs for 3 samples, 1/2 DL used.	0.00052959	SILVER
ZINC	0.135	1.27	Ave. Influent data	1.429893	0.015333333	1.27		0.1624076	ZINC
Cyanide	0.000005	1.27	ND 1/2 MDL	0.000052959	1.53333E-05	1.27	NDs for 3 samples, 1/2 DL used.	0.00016241	Cyanide
bis(2-ethylhexyl) phthalate	0.0235	1.27	ND 1/2 MDL	0.2489073	0.002333333	1.27		0.0247142	bis(2-ethylhexyl) phthalate
Phenol	0.0245	1.27	Ave. Influent data	0.2594991	1.16667E-06	1.27	NDs for 4 samples, 1/2 DL used.	1.2357E-05	Phenol
Bromodichloromethane	0.0016	1.27	ND 1/2 MDL	0.01694688	0.00012	1.27		0.00127102	Bromodichloromethane
Carbon Tetrachloride	0.0022	1.27	ND 1/2 MDL	0.02330196	0.00045	1.27		0.00476631	Carbon Tetrachloride
Chloroform	0.00165	1.27	ND 1/2 MDL	0.01747647	0.00158	1.27		0.01673504	Chloroform
Toluene	0.0125	1.27	Ave. Influent data	0.1323975	0.0036875	1.27		0.03905726	Toluene
Di-n-butyl phthalate	0.0235	1.27	ND 1/2 MDL	0.2489073	0.0015	1.27		0.0158877	Di-n-butyl phthalate
Alpha BHC	0.0000135	1.27	ND 1/2 MDL	0.000142989	2.62222E-05	1.27		0.00027774	Alpha BHC
4,4-DDT	0.0000165	1.27	ND 1/2 MDL	0.000174765	0.000044	1.27		0.00046604	4,4-DDT
BOD	295	1.27	2009-2010 Data	3124.581	30.84952381	1.27	2009-2010 Data	326.751986	BOD
Chlorine Residual		1.27			2.807718121	1.27	2009-2010 Data	29.7387888	Chlorine Residual
Nitrate as Nitrogen	0.00001	1.27	ND 1/2 MDL	0.000105918	0.00001	1.27		0.00010592	Nitrate as Nitrogen
Oil & Grease	46.5	1.27	Ave. Influent data	492.5187	1	1.27	Estimate of Effluent	10.5918	Oil & Grease
pH	7.678324226	1.27	Average historical data	81.32727454	6.808816029	1.27		72.1176176	pH
Settleable Matter	20	1.27	Average historical data	211.836	0.0000001	1.27	NDs on Eff, used value to avoid failure.	1.0592E-06	Settleable Matter
TSS	290	1.27	Average historical data	3071.622	31.14190476	1.27		329.848827	TSS

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R			
TABLE 5: POLLUTANT LOADING AND RECEIVING WATER				USER ENTERED		FINAL				USER ENTERED				USER ENTERED					
	TOTAL CURRENT		DOMESTIC	DOMESTIC		CALCULATED			COMMERCIAL	COMMERCIAL		CALCULATED	TOTAL DOMESTIC	TRUCKED AND	UPSTREAM			UPSTREAM	
	SIU LOADING		CONTRIBUTION	LOADING		DOMESTIC			USER DISCHARGE	LOADING		COMMERCIAL	PLUS COMMERCIAL	HAULED WASTE	RECEIVING			RECEIVING	
	TO POTW ³		TO POTW ¹	TO POTW		CONTRIBUTION			TO POTW ²	TO POTW		CONTRIBUTION	LOADING	LOADING TO POTW	WATER			WATER	
POLLUTANT	LBS/D		MG/L	LBS/DAY		LBS/DAY	POLLUTANT		MG/L	LBS/DAY		LBS/DAY	LBS/D	LBS/DAY	MG/L	POLLUTANT		MG/L	POLLUTANT
ARSENIC	0.14595		0.00005			0.000494194	ARSENIC		0.00005			3.78983E-05	0.000532092			ARSENIC		0	ARSENIC
CADMIUM			0.00005			0.000494194	CADMIUM		0.00005			3.78983E-05	0.000532092			CADMIUM		0	CADMIUM
CHROMIUM - TOTAL	0.06255		0.00115			0.011366455	CHROMIUM - TOTAL		0.00115			0.000871661	0.012238116			CHROMIUM - TOTAL		0.0008	CHROMIUM - TOTAL
COPPER	0.2502		0.13			1.284903644	COPPER		0.13			0.098535556	1.3834392			COPPER		0.0009	COPPER
LEAD	3.1275		0.0055			0.054361308	LEAD		0.0055			0.004168812	0.05853012			LEAD		0.00005	LEAD
MERCURY	0.000417		0.000022			0.000217445	MERCURY		0.000022			1.66752E-05	0.00023412			MERCURY		0.00161	MERCURY
MOLYBDENUM			0.0047			0.046454209	MOLYBDENUM		0.0047			0.003562439	0.050016648			MOLYBDENUM			MOLYBDENUM
NICKEL	0.39615		0.0052			0.051396146	NICKEL		0.0052			0.003941422	0.055337568			NICKEL		0.0016	NICKEL
SELENIUM	0.0417		0.000135			0.001334323	SELENIUM		0.000135			0.000102325	0.001436648			SELENIUM		0	SELENIUM
SILVER			0.00015			0.001482581	SILVER		0.00015			0.000113695	0.001596276			SILVER		0	SILVER
ZINC	2.2518		0.135			1.334323015	ZINC		0.135			0.102325385	1.4366484			ZINC		0.00125	ZINC
Cyanide	0.1251		0.000005			4.94194E-05	Cyanide		0.000005			3.78983E-06	5.32092E-05			Cyanide		0	Cyanide
bis(2-ethylhexyl) phthalate	0.10425		0.0235			0.232271043	bis(2-ethylhexyl) phthalate		0.0235			0.017812197	0.25008324			bis(2-ethylhexyl) phthalate		0	bis(2-ethylhexyl) phthalate
Phenol	2.3352		0.0245			0.242154918	Phenol		0.0245			0.018570162	0.26072508			Phenol		0	Phenol
Bromodichloromethane			0.0016			0.015814199	Bromodichloromethane		0.0016			0.001212745	0.017026944			Bromodichloromethane		0	Bromodichloromethane
Carbon Tetrachloride			0.0022			0.021744523	Carbon Tetrachloride		0.0022			0.001667525	0.023412048			Carbon Tetrachloride		0	Carbon Tetrachloride
Chloroform	0.0417		0.00165			0.016308392	Chloroform		0.00165			0.001250644	0.017559036			Chloroform		0	Chloroform
Toluene	37.57		0.0125			0.123548427	Toluene		0.0125			0.009474573	0.133023			Toluene		0.0001	Toluene
Di-n-butyl phthalate	1.0425		0.0235			0.232271043	Di-n-butyl phthalate		0.0235			0.017812197	0.25008324			Di-n-butyl phthalate		0.00095	Di-n-butyl phthalate
Alpha BHC			0.0000135			0.000133432	Alpha BHC		0.0000135			1.02325E-05	0.000143665			Alpha BHC		0	Alpha BHC
4,4-DDT			0.0000165			0.000163084	4,4-DDT		0.0000165			1.25064E-05	0.00017559			4,4-DDT		0	4,4-DDT
BOD			295			2915.742885	BOD		295			223.5999145	3139.3428			BOD			BOD
Chlorine Residual			0			Need Domestic Data	Chlorine Residual		0				Dom or Comm Data Missing			Chlorine Residual			Chlorine Residual
Nitrate as Nitrogen			0.00001			9.88387E-05	Nitrate as Nitrogen		0.00001			7.57966E-06	0.000106418			Nitrate as Nitrogen			Nitrate as Nitrogen
Oil & Grease			46.5			459.6001497	Oil & Grease		46.5			35.24541026	494.84556			Oil & Grease			Oil & Grease
pH			7.678324226			75.89159062	pH		7.678324226			5.819907256	81.71149788			pH			pH
Settleable Matter			20			197.6774838	Settleable Matter		20			15.15931624	212.8368			Settleable Matter			Settleable Matter
TSS			290			2866.323515	TSS		290			219.8100855	3086.1336			TSS			TSS

1 Domestic contribution assumed the influent concentrations. Copper and lead data is average of domestic sampling..

2 Steve septic average results used for hauled waste.

3 SIU contribution from Steve's Septic data.
SIU Lead based on average domestic concentration .

B	C	D	E	F	G	H	I	J
TABLE 6: BIOSOLIDS	POTW	TABLE 1 MAXIMUM	TABLE 3 "CLEAN"	TABLE 2 (CAR)	TABLE 2 CALC.	ENTER DEFAULT		
	BIOSOLIDS TO	LAND APP	LAND APP	CUMULATIVE	SLUDGE	BIOSOLIDS	SLUDGE	
	DISPOSAL	SLUDGE	SLUDGE	APPLICATION	DISPOSAL	DISPOSAL	CRITERIA	
	MG/KG	CRITERIA	CRITERIA	RATE	CRITERIA	CRITERIA		
POLLUTANT	DRY WT.	MG/KG	MG/KG	LBS/ACRE	MG/KG	MG/KG	MG/KG	POLLUTANT
ARSENIC	25		41				41.00	ARSENIC
CADMIUM	3.85		39				39.00	CADMIUM
CHROMIUM - TOTAL	48					820	820.00	CHROMIUM - TOTAL
COPPER	443		1500				1500.00	COPPER
LEAD	60.5		300				300.00	LEAD
MERCURY	1.484		17				17.00	MERCURY
MOLYBDENUM			75				75.00	MOLYBDENUM
NICKEL	44		420				420.00	NICKEL
SELENIUM	0		100				100.00	SELENIUM
SILVER	11.5					121	121.00	SILVER
ZINC	733		2800				2800.00	ZINC
Cyanide							No Criteria	Cyanide
bis(2-ethylhexyl) phthalate							No Criteria	bis(2-ethylhexyl) phthalate
Phenol							No Criteria	Phenol
Bromodichloromethane							No Criteria	Bromodichloromethane
Carbon Tetrachloride							No Criteria	Carbon Tetrachloride
Chloroform							No Criteria	Chloroform
Toluene							No Criteria	Toluene
Di-n-butyl phthalate							No Criteria	Di-n-butyl phthalate
Alpha BHC							No Criteria	Alpha BHC
4,4-DDT							No Criteria	4,4-DDT
BOD							No Criteria	BOD
Chlorine Residual							No Criteria	Chlorine Residual
Nitrate as Nitrogen							No Criteria	Nitrate as Nitrogen
Oil & Grease							No Criteria	Oil & Grease
pH							No Criteria	pH
Settleable Matter							No Criteria	Settleable Matter
TSS							No Criteria	TSS

Arsenic is ND reported as 1/2 DL

B	C	D	E	F	G	H	I	J	K	L	M	N	O
							ENTER THE NAME		USER				
TABLE 7: REMOVAL EFFICIENCY CALCULATIONS	INFEFF	ADRE	MRE	DECILE	LIT		OF THE REMOVAL		ENTERED	USE			
	Influent/Effluent Method	ADRE METHOD	MRE METHOD	DECILE METHOD	LITERATURE	SOURCE OF	EFFICIENCY TO BE		SLUDGE	SLUDGE		FINAL	
Removal Efficiencies must be 1-99%	Removal	REMOVAL	REMOVAL	REMOVAL	REMOVAL	LITERATURE	USED: INFEFF, ADRE, MRE,		REMOVAL	REMOVAL		POTW	
	Efficiency	EFFICIENCY	EFFICIENCY	EFFICIENCY	EFFICIENCY	REMOVAL EFFICIENCY	DECILE, OR LIT		EFFICIENCY	EFFICIENCY?		REMOVAL	
POLLUTANT	%	%	%	%	%	DATA			%	Y/N		%	POLLUTANT
ARSENIC	-833				49	EPA	Lit			N		49	ARSENIC
CADMIUM	-93				64	EPA	Lit			N		64	CADMIUM
CHROMIUM - TOTAL	-16				21	Appendix K of guidance	Lit			N		21	CHROMIUM - TOTAL
COPPER	86				65	Appendix K of guidance	INFEFF			N		86	COPPER
LEAD	95				91	Appendix K of guidance	INFEFF			N		95	LEAD
MERCURY	-33930				95	Appendix K of guidance	Lit			N		95	MERCURY
MOLYBDENUM	Influent-Effluent Data Prevents Reff Calc				75	Appendix K of guidance	Lit			N		75	MOLYBDENUM
NICKEL	55				42	Appendix K of guidance	INFEFF			N		55	NICKEL
SELENIUM	-295				77	Appendix K of guidance	Lit			N		77	SELENIUM
SILVER	67				76	Appendix K of guidance	INFEFF			N		67	SILVER
ZINC	89						INFEFF			N		89	ZINC
Cyanide	-206.6666667				59.0	Appendix K of guidance	Lit			N		59	Cyanide
bis(2-ethylhexyl) phthalate	90.07092199				76.0	Appendix K of guidance	INFEFF			N		90	bis(2-ethylhexyl) phthalate
Phenol	99.9952381				61.0	Appendix K of guidance	INFEFF			N		100	Phenol
Bromodichloromethane	92.5						INFEFF			N		93	Bromodichloromethane
Carbon Tetrachloride	79.54545455						INFEFF			N		80	Carbon Tetrachloride
Chloroform	4.242424242						INFEFF			N		4	Chloroform
Toluene	70.5						INFEFF			N		71	Toluene
Di-n-butyl phthalate	93.61702128				50.0	Appendix K of guidance	INFEFF			N		94	Di-n-butyl phthalate
Alpha BHC	-94.23868313				1.0	Conservative estimate	Lit			N		1	Alpha BHC
4,4-DDT	-166.6666667				1.0	Conservative estimate	Lit			N		1	4,4-DDT
BOD	89.5425343						INFEFF			N		90	BOD
Chlorine Residual	Influent-Effluent Data Prevents Reff Calc						INFEFF			N		Influent-Effluent Data Prevents Reff Calc	Chlorine Residual
Nitrate as Nitrogen	0						INFEFF			N		0	Nitrate as Nitrogen
Oil & Grease	97.84946237						INFEFF			N		98	Oil & Grease
pH	11.32419225						INFEFF			N		11	pH
Settleable Matter	99.9999995						INFEFF			N		100	Settleable Matter
TSS	89.26141215						INFEFF			N		89	TSS

B	C	D	E	F	G	H	I
DAILY				OTHER CRITERIA			
TABLE 8: MAHL CALCULATIONS				FROM Daily Criteria&Stds		NAME OF	
	Daily/7 day			COLUMN H	MOST	MAHL	
	NPDES	ACUTE	LOADING		STRINGENT	FOR DAILY MAX	
	LOADING	LOADING	FOR MCL		CRITERIA	LIMITS	
POLLUTANT	LBS/DAY	LBS/DAY	LBS/DAY		LBS/DAY		POLLUTANT
ARSENIC	999999	724.33456	21.30395765	999999	21.30395765	MCL	ARSENIC
CADMIUM	999999	6.803848897	15.09030333	999999	6.803848897	WQ-ACUTE	CADMIUM
CHROMIUM - TOTAL	999999	27.5063757	68.76593924	999999	27.5063757	WQ-ACUTE	CHROMIUM - TOTAL
COPPER	999999	59.56021831	9903.927236	999999	59.56021831	WQ-ACUTE	COPPER
LEAD	999999	795.2477279	320.1300064	999999	320.1300064	MCL	LEAD
MERCURY	999999	30.42205152	43.4600736	999999	30.42205152	WQ-ACUTE	MERCURY
MOLYBDENUM	999999	999999	999999	999999	No Criteria	No Criteria	MOLYBDENUM
NICKEL	999999	674.5221288	242.1346958	999999	242.1346958	MCL	NICKEL
SELENIUM	999999	94.47842087	236.1960522	999999	94.47842087	WQ-ACUTE	SELENIUM
SILVER	999999	4.274332984	325.950552	999999	4.274332984	WQ-ACUTE	SILVER
ZINC	999999	860.9346102	47829.70057	999999	860.9346102	WQ-ACUTE	ZINC
Cyanide	999999	58.30009873	397.5006732	999999	58.30009873	WQ-ACUTE	Cyanide
bis(2-ethylhexyl) phthalate	0.321535594	999999	43.7705027	999999	0.321535594	NPDES Daily	bis(2-ethylhexyl) phthalate
Phenol	999999	6844961.592	999999	999999	6844961.592	WQ-ACUTE	Phenol
Bromodichloromethane	999999	246.2737504	1158.935296	999999	246.2737504	WQ-ACUTE	Bromodichloromethane
Carbon Tetrachloride	999999	2.655893387	2.655893387	999999	2.655893387	WQ-ACUTE	Carbon Tetrachloride
Chloroform	999999	32791.03813	90.7710398	999999	90.7710398	MCL	Chloroform
Toluene	999999	64453.49898	552.4585627	999999	552.4585627	MCL	Toluene
Di-n-butyl phthalate	999999	16000.55043	11915.30351	999999	11915.30351	MCL	Di-n-butyl phthalate
Alpha BHC	999999	999999	0.016462149	999999	0.016462149	MCL	Alpha BHC
4,4-DDT	2.90232E-05	1.207224267	999999	999999	2.90232E-05	NPDES Daily	4,4-DDT
BOD	6614.600707	999999	999999	999999	6614.600707	NPDES Daily	BOD
Chlorine Residual	#VALUE!	#VALUE!	#VALUE!	999999	#VALUE!	#VALUE!	Chlorine Residual
Nitrate as Nitrogen	999999	10865.0184	10865.0184	999999	10865.0184	WQ-ACUTE	Nitrate as Nitrogen
Oil & Grease	999999	3789175.167	999999	999999	3789175.167	WQ-ACUTE	Oil & Grease
pH	999999	7964.136036	7964.136036	999999	7964.136036	WQ-ACUTE	pH
Settleable Matter	425673602.6	999999	999999	999999	425673602.6	NPDES Daily	Settleable Matter
TSS	999999	30353.20441	999999	999999	30353.20441	WQ-ACUTE	TSS

B	C	D	E	F	G	H	I	J
MONTHLY				OTHER CRITERIA				
TABLE 9: MAHL CALCULATIONS				FROM Mo Criteria&Stds	TABLE 1, 2, 3 OR		NAME OF	
	Monthly	CHRONIC	LOADING	Column K	OTHER	MOST	MAHL	
	NPDES	Toxicity	FOR HUMAN	State	SLUDGE	STRINGENT	For	
	LOADING	Loading	HEALTH	Chronic Agriculture	LOADING	CRITERIA	Monthly	
POLLUTANT	LBS/DAY	LBS/DAY	LBS/DAY	mg/l	LBS/DAY	LBS/DAY	Limits	POLLUTANT
ARSENIC	999999	319.5593647	999999	213.0395765	0.004291696	0.004291696	Biosolids	ARSENIC
CADMIUM	999999	4.580301085	999999	30.18060667	0.003125545	0.003125545	Biosolids	CADMIUM
CHROMIUM - TOTAL	999999	2.75063757	999999	999999	0.200279143	0.200279143	Biosolids	CHROMIUM - TOTAL
COPPER	999999	41.97834845	9903.927236	1523.681113	0.08973394	0.08973394	Biosolids	COPPER
LEAD	999999	30.98966227	999999	106710.0021	0.016212672	0.016212672	Biosolids	LEAD
MERCURY	999999	16.73212834	999999	999999	0.000917839	0.000917839	Biosolids	MERCURY
MOLYBDENUM	999999	999999	999999	43.4600736	0.0051291	0.0051291	Biosolids	MOLYBDENUM
NICKEL	999999	392.5003418	1477.021644	484.2693915	0.039076585	0.039076585	Biosolids	NICKEL
SELENIUM	999999	21.7300368	803.0665774	94.47842087	0.006661169	0.006661169	Biosolids	SELENIUM
SILVER	999999	999999	999999	999999	0.009309317	0.009309317	Biosolids	SILVER
ZINC	999999	679.9879432	68874.76881	19131.88023	0.162016696	0.162016696	Biosolids	ZINC
Cyanide	999999	13.78002334	371.0006283	450.5007629	999999	13.78002334	WQ-CHRONIC	Cyanide
bis(2-ethylhexyl) phthalate	0.192921357	999999	999999	999999	999999	0.192921357	NPDES Monthly	bis(2-ethylhexyl) phthalate
Phenol	999999	58410338.92	95829462.29	999999	999999	58410338.92	WQ-CHRONIC	Phenol
Bromodichloromethane	999999	999999	999999	999999	999999	No Criteria	No Criteria	Bromodichloromethane
Carbon Tetrachloride	999999	1.327946693	0.531178677	999999	999999	0.531178677	HH	Carbon Tetrachloride
Chloroform	999999	1406.951117	1.134637997	999999	999999	1.134637997	HH	Chloroform
Toluene	999999	999999	147.3222834	999999	999999	147.3222834	HH	Toluene
Di-n-butyl phthalate	999999	51.06558648	999999	999999	999999	51.06558648	WQ-CHRONIC	Di-n-butyl phthalate
Alpha BHC	999999	999999	999999	999999	999999	No Criteria	No Criteria	Alpha BHC
4,4-DDT	6.34211E-06	0.001097477	0.109747661	999999	999999	6.34211E-06	NPDES Monthly	4,4-DDT
BOD	4579.338951	999999	999999	999999	999999	4579.338951	NPDES Monthly	BOD
Chlorine Residual	#VALUE!	#VALUE!	#VALUE!	999999	999999	#VALUE!	#VALUE!	Chlorine Residual
Nitrate as Nitrogen	106.4184	999999	999999	999999	999999	106.4184	NPDES Monthly	Nitrate as Nitrogen
Oil & Grease	999999	1263058.389	999999	999999	999999	1263058.389	WQ-CHRONIC	Oil & Grease
pH	999999	999999	999999	999999	999999	No Criteria	No Criteria	pH
Settleable Matter	212836801.3	999999	999999	999999	999999	212836801.3	NPDES Monthly	Settleable Matter
TSS	8225.222277	999999	999999	999999	999999	8225.222277	NPDES Monthly	TSS

TABLE 10: DAILY LOCAL LIMITS				SAFETY/	MAHL WITH	ENTER "Y" FOR							If you are adopting	If setting	Percentage	MACL	MAIL		
		FINAL		EXPANSION	SAFETY -	for a SIU and a	MAHL minus	Maximum		MASS			a Commercial Limit,	SIU and Commercial limits	of MAL that			CALCULATED	
	Most	MAHL FOR		FACTOR %	EXPANSION	Commercial Limit	DOM + COM	Allowable Load		RESERVED	MAL		then these are the	Enter % of MAL to	will be	Calculated	Calculated	UNIFORM	
	Stringent	Daily	Name	FOR DAILY	FACTOR	ENTER A "N" FOR	LOADING	MAL		FOR HAULED	MINUS THE HAULED WASTE		loadings from	allocate to SIUs	allocated to	ALLOCATION	ALLOCATION	LOCAL LIMITS	
POLLUTANT	MAHL	LOCAL LIMITS LBS/DAY	FOR MAHL	MAX LIMITS	LBS/DAY	SIU Limit Only	LBS/DAY	LBS/DAY	MAL is for	WASTE lbs/d	LBS/DAY	POLLUTANT	Table 5	Enter 100% if no Commercial Limit	Commercial Users	FOR COMMERCIAL	FOR SIUs	FOR SIUs	
													lbs/day	%	%	LBS/DAY	LBS/DAY	MG/L	POLLUTANT
ARSENIC	0.0042917	0.004291696	Biosolids	10	0.003862526	y	0.00336833	0.003368333	Commercial + SIUs	0.000	0.003368333	ARSENIC	3.78983E-05	5.6	94.4	0.003179706	0.00018863	0.0045	ARSENIC
CADMIUM	0.00312555	0.003125545	Biosolids	10	0.002812991	y	0.0023188	0.002318797	Commercial + SIUs	0.000	0.002318797	CADMIUM	3.78983E-05	5.6	94.4	0.002188944	0.00012985	0.0031	CADMIUM
CHROMIUM - TOTAL	0.20027914	0.200279143	Biosolids	10	0.180251229	y	0.16888477	0.168884773	Commercial + SIUs	0.000	0.168884773	CHROMIUM - TOTAL	0.000871661	5.6	94.4	0.159427226	0.00945755	0.2235	CHROMIUM - TOTAL
COPPER	0.08973394	0.08973394	Biosolids	10	0.080760546	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	COPPER	0.098535556	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	COPPER
LEAD	0.01621267	0.016212672	Biosolids	10	0.014591405	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	LEAD	0.004168812	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	LEAD
MERCURY	0.00091784	0.000917839	Biosolids	10	0.000826055	y	0.00060861	0.00060861	Commercial + SIUs	0.000	0.00060861	MERCURY	1.66752E-05	5.6	94.4	0.000574528	3.4082E-05	0.001	MERCURY
MOLYBDENUM	0.0051291	0.0051291	Biosolids	10	0.00461619	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	MOLYBDENUM	0.003562439	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	MOLYBDENUM
NICKEL	0.03907659	0.039076585	Biosolids	10	0.035168927	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	NICKEL	0.003941422	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	NICKEL
SELENIUM	0.00666117	0.006661169	Biosolids	10	0.005995052	y	0.00466073	0.004660729	Commercial + SIUs	0.000	0.004660729	SELENIUM	0.000102325	5.6	94.4	0.004399728	0.000261	0.006	SELENIUM
SILVER	0.00930932	0.009309317	Biosolids	10	0.008378385	y	0.0068958	0.006895804	Commercial + SIUs	0.000	0.006895804	SILVER	0.000113695	5.6	94.4	0.006509639	0.00038617	0.009	SILVER
ZINC	0.1620167	0.162016696	Biosolids	10	0.145815027	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	ZINC	0.102325385	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	ZINC
Cyanide	13.7800233	13.78002334	WQ-CHRONIC	10	12.402021	y	12.4019716	12.40197158	Commercial + SIUs	0.000	12.40197158	Cyanide	3.78983E-06	5.6	94.4	11.70746117	0.69451041	16.409	Cyanide
bis(2-ethylhexyl) phthalate	0.19292136	0.192921357	NPDES Monthly	10	0.173629221	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	s(2-ethylhexyl) phthalate	0.017812197	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	bis(2-ethylhexyl) phthalate
Phenol	6844961.59	6844961.592	WQ-ACUTE	10	6160465.433	y	6160465.19	6160465.191	Commercial + SIUs	0.000	6160465.191	Phenol	0.018570162	5.6	94.4	5815479.14	344986.051	8151085.726	Phenol
Bromodichloromethane	246.27375	246.2737504	WQ-ACUTE	10	221.6463754	y	221.630561	221.6305612	Commercial + SIUs	0.000	221.6305612	Bromodichloromethane	0.001212745	5.6	94.4	209.2192497	12.4113114	293.246	Bromodichloromethane
Carbon Tetrachloride	0.53117868	0.531178677	HH	10	0.47806081	y	0.45631629	0.456316286	Commercial + SIUs	0.000	0.456316286	Carbon Tetrachloride	0.001667525	5.6	94.4	0.430762574	0.02555371	0.604	Carbon Tetrachloride
Chloroform	1.134638	1.134637997	HH	10	1.021174198	y	1.00486581	1.004865805	Commercial + SIUs	0.000	1.004865805	Chloroform	0.001250644	5.6	94.4	0.94859332	0.05627249	1.330	Chloroform
Toluene	147.322283	147.3222834	HH	10	132.5900551	y	132.466507	132.4665066	Commercial + SIUs	0.000	132.4665066	Toluene	0.009474573	5.6	94.4	125.0483823	7.41812437	175.270	Toluene
Di-n-butyl phthalate	51.0655865	51.06558648	WQ-CHRONIC	10	45.95902783	y	45.7267568	45.72675679	Commercial + SIUs	0.000	45.72675679	Di-n-butyl phthalate	0.017812197	5.6	94.4	43.16805841	2.56069838	60.502	Di-n-butyl phthalate
Alpha BHC	0.01646215	0.016462149	MCL	10	0.014815934	y	0.0146825	0.014682502	Commercial + SIUs	0.000	0.014682502	Alpha BHC	1.02325E-05	5.6	94.4	0.013860282	0.00082222	0.0194268	Alpha BHC
4,4-DDT	6.3421E-06	6.34211E-06	NPDES Monthly	10	5.7079E-06	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	4,4-DDT	7.57966E-06	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	4,4-DDT
BOD	4579.33895	4579.338951	NPDES Monthly	10	4121.405056	y	3661.80491	3661.804906	Commercial + SIUs	0.000	3661.804906	BOD	35.24541026	5.6	94.4	3456.743831	205.061075	4845.038	BOD
Chlorine Residual	#VALUE!	#VALUE!	#VALUE!	10	#VALUE!	y	#VALUE!	#VALUE!	Commercial + SIUs	0.000	#VALUE!	Chlorine Residual	5.819907256	5.6	94.4	#VALUE!	#VALUE!	#VALUE!	Chlorine Residual
Nitrate as Nitrogen	106.4184	106.4184	NPDES Monthly	10	95.77656	y	0 Discharge	0 Discharge	Commercial + SIUs	0.000	0 Discharge	Nitrate as Nitrogen	15.15931624	5.6	94.4	0 Discharge	0 Discharge	0 Discharge	Nitrate as Nitrogen
Oil & Grease	1263058.39	1263058.389	WQ-CHRONIC	10	1136752.55	y	1133886.23	1133886.227	Commercial + SIUs	0.000	1133886.227	Oil & Grease	219.8100855	5.6	94.4	1070388.598	63497.6287	1500276.935	Oil & Grease
pH	7964.13604	7964.136036	WQ-ACUTE	10	7167.722432	y	7167.72243	7167.722432	Commercial + SIUs	0.000	7167.722432	pH	0	5.6	94.4	6766.329976	401.392456	9483.816	pH
Settleable Matter	212836801	212836801.3	NPDES Monthly	10	191553121.2	y	191553121	191553121.2	Commercial + SIUs	0.000	191553121.2	Settleable Matter	0	5.6	94.4	180826146.4	10726974.8	253449352	Settleable Matter
TSS	8225.22228	8225.222277	NPDES Monthly	10	7402.700049	y	7402.70005	7402.700049	Commercial + SIUs	0.000	7402.700049	TSS	0	5.6	94.4	6988.148847	414.551203	9794.722	TSS

REGULATION 24. - USE OF THE PUBLIC SEWERS

Rule 24.01. PROHIBITIONS ON DISCHARGES. No User shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes Pass Through or Interference. This general prohibition applies to all Users of the POTW whether or not they are subject to categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements.

No person shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater containing:

- (a) pollutants which cause a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140 degrees F (60 degrees C) using the test methods specified in 40 CFR 261.21;
- (b) solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference or injury to the treatment works;
- (c) pollutants which cause a danger to life or safety of personnel;
- (d) pollutants which cause a strong offensive odor or prevention of the effective maintenance or operation of the treatment works;
- (e) pollutants which cause air pollution by the release of toxic or malodorous gases or malodorous gas-producing substances;
- (f) Pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause Interference with the POTW;
- (g) pollutants which cause a the District's effluent or any other product of the treatment process, residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation or treatment process;
- (h) pollutants which cause a detrimental environmental impact or a nuisance in the Waters of the State or a condition unacceptable to any public agency having regulatory jurisdiction over the District;
- (i) any wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent thereby violating the MCDS's NPDES permit;
- (j) pollutants which cause conditions at or near the District's POTW which violate any statute or any rule, regulation, or ordinance of any public agency or State or Federal regulatory body;
- (k) pollutants which cause the District's POTW to be overloaded or cause excessive collection or treatment costs, or may use a disproportionate share of the facilities;
- (l) pollutants which cause a pass through of any pollutant;
- (m) wastewater having a pH less than 6.5 or more than 8.5, or otherwise causing corrosive structural damage to the POTW or equipment;
- (n) wastewater having a temperature greater than 140 degrees F (65 degrees C), or which will inhibit biological activity in the treatment plant resulting in Interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees F (40 degrees C);
- (o) more than 100 mg/l of oil or grease of animal or vegetable origin;

- (p) more than 25 mg/L Total Petroleum Hydrocarbons (TPH) as diesel, motor oil, hydraulic oil or gasoline;
- (q) petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
- (r) identifiable chlorinated hydrocarbons;
- (s) trucked or hauled pollutants, except at discharge points designated by the General Manager in accordance with Rule 24.15 of this ordinance;
- (t) substances which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261;
- (u) medical wastes, except as specifically authorized by the General Manager in an individual wastewater discharge permit, or a general permit.
- (w) any detectable concentration of 4,4-DDT.

Rule 24.02. PROHIBITIONS ON STORM DRAINAGE AND GROUND WATER. Storm water, ground water, rain water, street drainage, subsurface drainage or yard drainage shall not be discharged through direct or indirect connections to a community sewer.

Rule 24.03. PROHIBITIONS ON UNPOLLUTED WATER. Unpolluted water, including, but not limited to cooling water, process water or blow-down from cooling towers or evaporative coolers shall not be discharged through direct or indirect connection to a community sewer.

Rule 24.04. LIMITATIONS ON RADIOACTIVE WASTES. No person shall discharge or cause to be discharged, any radioactive waste into a community sewer except;

- (a) when the person is authorized to use radioactive materials by the State Department of Health or other governmental agency empowered to regulate the use of radioactive materials, and
- (b) when the waste is discharged in strict conformity with current California Radiation Control Regulations (California Administrative Code, Title 17) and the Nuclear Regulatory Commission regulations and recommendations for safe disposal, and
- (c) when the person is in compliance with all rules and regulations of all other applicable regulatory agencies.

Rule 24.05. LIMITATIONS ON THE USE OF GARBAGE GRINDERS. Waste from garbage grinders shall not be discharged by any nondomestic users into the community sewer.

Rule 24.06. LIMITATIONS ON POINT OF DISCHARGE. No person shall discharge any substances directly into a manhole or other opening in a community sewer other than through an approved building sewer, unless he has been issued a permit by the District. If a permit is issued for such direct discharge, the user shall pay the applicable charges and fees and shall meet such other conditions as required by the District.

Rule 24.07. HOLDING TANK WASTE. No person shall discharge any holding tank waste into a community sewer unless he has been issued a permit by the District. Unless otherwise allowed under the terms and conditions of the permit, a separate permit must be secured for each separate discharge. This permit will state the specific location of discharge, the time of day the discharge is to occur, the volume of the discharge and the wastewater constituents and characteristics. If a permit is granted for discharge of such waste into a community sewer, the user shall pay the applicable charges and fees and shall meet such other conditions as required by the District. An exception to the above is that no permit will be required for discharge of domestic wastes from recreational vehicles holding tanks provided that such discharges are made into a District approved facility designed to receive such wastes.

Rule 24.08. NATIONAL CATEGORICAL PRETREATMENT STANDARDS. Users must comply with the categorical Pretreatment Standards found at 40 CFR Chapter I, Subchapter N, Parts 405-471.

(a) When wastewater subject to a categorical Pretreatment Standard is mixed with wastewater not regulated by the same Standard, the General Manager may impose an alternate limit in accordance with 40 CFR 403.6(e).

(b) A CIU may obtain a net/gross adjustment to a categorical Pretreatment Standard in accordance with the following paragraphs of this Section.

[Note: See 40 CFR 403.15]

(i) Categorical Pretreatment Standards may be adjusted to reflect the presence of pollutants in the Industrial User's intake water in accordance with this Section. Any Industrial User wishing to obtain credit for intake pollutants must make application to the MCSD. Upon request of the Industrial User, the applicable Standard will be calculated on a "net" basis (i.e., adjusted to reflect credit for pollutants in the intake water) if the requirements of paragraphs a) through d) of this Section are met.

a) Criteria.

1) Either 1- The applicable categorical Pretreatment Standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis; or 2- The Industrial User demonstrates that the control system it proposes or uses to meet applicable categorical Pretreatment Standards would, if properly installed and operated, meet the Standards in the absence of pollutants in the intake waters.

2) Credit for generic pollutants such as biochemical oxygen demand (BOD), total suspended solids (TSS), and oil and grease should not be granted unless the Industrial User demonstrates that the constituents of the generic measure in the User's effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.

3) Credit shall be granted only to the extent necessary to meet the applicable categorical Pretreatment Standard(s), up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with Standard(s) adjusted under this Section.

4) Credit shall be granted only if the User demonstrates that the intake water is drawn from the same body of water as that into which the POTW discharges. The MCSD may waive this requirement if it finds that no environmental degradation will result.

Rule 24.09. LIMITATIONS ON WASTEWATER STRENGTH (LOCAL LIMITS).

Rule 24.09.01. The General Manager is authorized to establish Local Limits pursuant to 40 CFR 403.5(c). The following pollutant limits are established to protect against Pass Through and Interference. No person shall discharge wastewater containing in excess of the following concentrations:

POLLUTANT	PROPOSED DAILY MAXIMUM LIMIT (mg/L)
Copper	0.1300
Lead	0.0055
Molybdenum	0.0047
Nickel	0.0052
Zinc	0.135
bis(2-ethylhexyl) phthalate	0.0235
Oil and Grease (petroleum and vegetable)	100
BOD	354

(a) The above limits apply at the point where the wastewater is discharged to the POTW and apply to instantaneous maximum concentrations. All concentrations for metallic substances are for total metal unless indicated otherwise. The General Manager may impose mass limitations in addition to the concentration-based limitations above.

(b) **Analytical Requirements.** All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, unless otherwise specified in an applicable categorical Pretreatment Standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the EPA determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the General Manager or other parties approved by EPA.

(c) **BMPs.** The General Manager may develop Best Management Practices (BMPs), by ordinance or in individual wastewater discharge permits, or general permits, to implement Local Limits and the requirements of Rule 24.

(d) **Right of Revision.** The MCSD reserves the right to establish, by ordinance or in individual wastewater discharge permits or in general permits, more stringent Standards or Requirements on discharges to the POTW consistent with the purpose of this ordinance.

(e) **Dilution.** No User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. The General Manager may impose mass limitations on Users who are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases when the imposition of mass limitations is appropriate.

Rule 24.09.02 The General Manager shall cause to be prepared from time to time a list of the maximum permissible quantities or concentrations of certain constituents in industrial or wastewater flows and otherwise issue detailed directions for meeting the requirements of this section.

Limitations on wastewater strength in Rule 24 of this Ordinance may be supplemented with more stringent limitations provided:

(a) If the District determines that the limitations in Rule 24 may not be sufficient to protect the operation of the District's treatment works, or
(b) If the Authority determines that the limitations in Rule 24 may not be sufficient to enable the District's POTW to comply with water quality standards or effluent limitations specified in the District's National Pollutant Discharge Elimination System (NPDES) permit.

Rule 24.10. DISPOSAL OF UNACCEPTABLE WASTE. Waste not permitted to be discharged into the community sewer must be transported to a State approved disposal site. The required "Waste Haulers Report" must be completed and a copy furnished within 30 days to the District by the discharger.

Rule 24.11. INTERCEPTORS REQUIRED. Grease, oil and sand interceptors shall be provided when, in the opinion of the Manager, they are necessary for the proper handling of liquid wastes, containing grease in excessive amounts, or any flammable wastes, sand and other harmful ingredients; except that such interceptors shall not be required for buildings used for residential purposes. All interceptors shall be of a type and capacity approved by the Manager and shall be so located as to be readily and easily accessible for cleaning and inspection. All such grease, oil and sand interceptors shall be maintained by the Owner, at their expense, in continuous efficient operation at all times.

Rule 24.11.01. GREASE INTERCEPTORS/TRAPS. Establishments serving food, manufacturing food products, Slaughter Houses, Packing Establishments, Car Washes, Auto Wash Racks, etc. are grouped into the following major categories: **INDUSTRIAL**-commercial facilities as defined in sections 709 and 710 of the Uniform Plumbing Code, and those facilities designated by the General Manager. **HIGH VOLUME**-full menu types establishments operating over 16 hours per day and/or serving 500 or more meals per day. **MEDIUM VOLUME**-full menu or specialty menu type establishments serving full meals 8 to 16 hours per day, and/or 100 to 400 meals per day. **SMALL VOLUME**-fast foot, take out or specialty type food establishments with limited menus, a minimum of dish washing, and/or minimal seating capacity.

Rule 24.11.02. GREASE INTERCEPTORS. Industrial facilities, High Volume and Medium Volume food establishments as defined in Section 709 are required to install a grease interceptor. The size, type and location of each grease interceptor shall be approved by the General Manager or his designated representative. Waste in excess of 140°F (60°C) shall not be discharged into a grease interceptor. Grease interceptors shall have a minimum 750-gallon capacity.

Any type of business or establishment such as, but not limited to restaurants, bakeries, donut shops, take-out, drive-in eating establishments, ice cream or milk drive-in stations, hospitals, hotels, markets, recreation or reception halls, etc., where any grease or other objectionable materials may be discharged into a public or private sewage main or disposal system shall have a grease interceptor.

Interceptors shall be constructed and installed at the expense of the owner, in accordance with the design previously approved by the General Manager.

Each grease interceptor shall be so installed and connected that it shall be at all times easily accessible for inspection, cleaning, and removal of the intercepted grease. A grease interceptor may not be installed in any part of a building where food is handled. Proper location of the grease interceptor shall meet the Uniform Plumbing Code Requirements and the approval of the General Manager.

Each commercial facility or business establishment for which a grease interceptor is required shall have an interceptor which shall serve only that business establishment.

Buildings remodeled for use requiring interceptors shall be subject to these regulations.

For the purpose of this section the term 'fixture' shall mean and include each plumbing fixture, appliance, apparatus or other equipment required to be connected to or discharged into a grease interceptor by any provision of this section.

Waste discharge from fixtures and equipment in the above-mentioned types of establishments which may contain grease or other objectionable materials, including, but not limited to, scullery sinks, pot and pan sinks, dishwashers, food waste disposal, soup kettles, etc., and floor drains located in areas where such objectionable materials may exist, may be drained into the sanitary waste through the interceptor when approved by the General Manager. Exception: Toilets, urinals, and other fixtures containing fecal material may not flow through the interceptor.

The interceptors shall be maintained in efficient operating condition by periodic removal and proper disposal of the accumulated grease. No such collected grease shall be introduced into any drainage piping or public or private sewer.

Abandoned grease interceptors shall be emptied and filled in the same manner as required for abandoned septic tanks as described in Section 1119 of the Uniform Plumbing Code.

The cover for grease interceptors shall be one-half inch (1/2") steel plate reinforced as required by the General Manager, said reinforcing to depend upon the load to be imposed on the plate. Except as otherwise provided, the cover shall be gas-tight on all interceptors and the waste shall enter the interceptor through the inlet pipe only. Interceptors shall be so designed that they will not become air bound if closed covers are used. Each interceptor shall be properly vented, Sec 708(d) UPC.

Interceptors shall be installed in such a manner that drainage from areas outside the area intended to be served may not enter. Interceptors shall be tested in a manner approved by the District and shall be witnessed by a District Inspector. Grade rings may be used to establish final grade and shall be installed using Ram-Nek and Ram-Nek primer, and inspected by the District.

Rule 24.11.03. GREASE TRAPS. Any type of business or establishment such as, but not limited to restaurants, bakeries, donut shops, take-out, drive-in eating establishments, ice cream or milk drive-in stations, hospitals, hotels markets, recreation or reception halls, etc., where any grease or other objectionable materials may be discharged into a public or private sewage main or disposal system which is deemed by the General Manager or his designated representative to be a Small Volume food establishment as described in Section 24.11.01 may choose to install a grease trap in place of a grease interceptor.

The size, type and location of each grease trap shall be approved by the General Manager or his designated representative. Wastes in excess of 140° F (60°C) shall not be discharged into a grease trap.

For the purpose of this section, the term "fixture" shall mean and include each plumbing fixture, appliance, apparatus or other equipment required to be connected to or discharged into a grease trap by any provision of this section.

Waste discharge from fixtures and equipment in the above-mentioned types of establishments which may contain grease or other objectionable materials, including, but not limited to, scullery sinks, pot and pan sinks, dishwashers, food waste disposal, soup kettles, etc., and floor drains located in areas where such objectionable materials may exist, may be drained into the sanitary waste through the grease trap when approved by the General Manager. Exception:

Toilets, urinals, and other fixtures containing fecal material may not flow through the grease trap.

No grease trap shall be installed which has an approval rate of flow of more than fifty-five (55) gallons per minute, nor less than twenty (20) gallons per minute, except with prior written approval of the General Manager.

Each plumbing fixture or piece of equipment connected to a grease trap shall be provided with an approved type flow control or restricting device installed in a readily accessible and visible location in the tailpiece or drain outlet of each such fixture. Flow control devices shall be so designed that the flow through such device or devices shall at no time be greater than the rated capacity of the grease trap. No flow control device having adjustable or removable parts shall be approved.

Each grease trap required by this section shall have an approved rate of flow, expressed in gallons per minutes, which is not less than forty (40) percent of the total capacity in gallons of fixtures discharging into said trap. The grease retention capacity of the trap, expressed in pounds of grease, shall not be less than two times the approved rate of flow in gallons per minute.

Any grease trap installed with the inlet more than four (4) feet lower in elevation than the outlet of any fixture discharging into such grease trap shall have an approved rate of flow which is not less than fifty (50) percent greater than that given in the preceding paragraph. Not more than four (4) separate fixtures shall be connected to or discharged into any one (1) grease trap.

Each fixture discharging into grease trap shall be individually trapped and vented in an approved manner. An approved type grease trap may be used as a fixture trap for a single fixture when the horizontal distance between the fixture outlet and the grease trap does not exceed four (4) feet and the vertical tailpipe or drain does not exceed two and one-half (2 ½) feet.

No water-jacketed grease trap or grease interceptor shall be approved or installed. No mechanical grease trap shall be allowed.

Each grease trap shall have an approved water seal of not less than two (2) inches in depth or the diameter of its outlet, whichever is greater.

Rule 24.11.04. TIME OF COMPLIANCE. All commercial facilities and food establishments described in Division VII shall be required to install a sand and/or grease interceptor or grease trap within the sixty (60) day period after the first occurrence of any of the following events:

- (a) Transfer of any ownership or interest in the commercial facility;
- (b) The issuance by the County of any building permit for the construction, reconstruction or related work to be performed on the premises costing more than \$5,000;
- (c) The backup or discharge of raw sewage on or from the premises due to grease build up in their service lateral;
- (d) Or ninety (90) days after receiving written notice from the General Manager of the necessity for installation of such facilities.

Rule 24.11.05. MONITORING AND REPORTING. All establishments having a grease trap or interceptor shall maintain and clean this unit as recommended by the manufacturer. Each grease trap or interceptor shall be regularly maintained by the proprietor or property owner and records kept at the site for inspection by the District. Maintenance will vary depending upon the size of the unit and grease loading. The property owner or proprietor shall send a copy of the maintenance records to the District annually from the time of installation or some other agreed upon date by the District. At no time shall the unit be allowed to become clogged with grease so as to create damage to the District collection or treatment facilities. The Proprietor must develop a cleaning schedule sufficient to keep the unit functioning properly. Records of grease

disposal to a collection agent must be made available to District personnel upon request.

Rule 24.12. PRELIMINARY TREATMENT OF WASTES. Users shall provide wastewater treatment as necessary to comply with this ordinance and shall achieve compliance with all categorical Pretreatment Standards, Local Limits, and the prohibitions set out in Rule 24 of this ordinance within the time limitations specified by EPA, the State, or the General Manager, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the General Manager for review, and shall be acceptable to the General Manager before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the User from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to District under the provisions of this ordinance.

Rule 24.13. MAINTENANCE OF PRETREATMENT FACILITIES. Users shall provide wastewater treatment as necessary to comply with this ordinance and shall achieve compliance with all categorical Pretreatment Standards, Local Limits, and the prohibitions set out in Rule 24 of this ordinance within the time limitations specified by EPA, the State, or the General Manager, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the General Manager for review, and shall be acceptable to the General Manager before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the User from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the MCSD under the provisions of this ordinance.

Rule 24.14. AVAILABILITY OF DISTRICT FACILITIES. If sewerage capacity is not available, the District may require the discharger to restrict their discharge until sufficient capacity can be made available. When requested, the District will advise persons desiring to locate new facilities as to the areas where wastewater of their proposed quantity and quality can be received by available sewerage facilities. The District may refuse service to persons locating facilities in areas where their proposed quantity or quality of wastewater is unacceptable in the available collection facility.

Rule 24.15. HAULED WASTEWATER

(a) Septic tank waste may be introduced into the POTW only at locations designated by the General Manager, and at such times as are established by the General Manager. Such waste shall not violate Rule 24 of this ordinance or any other requirements established by the MCSD. The General Manager may require septic tank waste haulers to obtain individual wastewater discharge permits or general permits.

(b) The General Manager may require haulers of industrial waste to obtain individual wastewater discharge permits or general permits. The General Manager may require generators of hauled industrial waste to obtain individual wastewater discharge permits or general permits. The General Manager also may prohibit the disposal of hauled industrial waste. The discharge of hauled industrial waste is subject to all other requirements of this ordinance.

(c) Industrial waste haulers may discharge loads only at locations designated by the General Manager. No load may be discharged without prior consent of the General Manager. The General Manager may collect samples of each hauled load to ensure compliance with applicable

Standards. The General Manager may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.

(d) Industrial waste haulers must provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste. The form shall identify the type of industry, known or suspected waste constituents, and whether any wastes are RCRA hazardous wastes.

Rule 24.16. ADDITIONAL PRETREATMENT MEASURES

(a) Grease, oil, and sand interceptors shall be provided when, in the opinion of the General Manager, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential users. All interception units shall be of a type and capacity approved by the General Manager, shall comply with the MCSD's Oil and Grease Management ordinance Rule 24.11 and shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired in accordance with the MCSD's Oil and Grease Management ordinance Rule 24.11 by the User at their expense.

Rule 24.17. ACCIDENTAL DISCHARGE/SLUG CONTROL PLANS The General Manager may require any industrial user to develop and implement an accidental discharge/slug control plan. At least once every two years the General Manager shall evaluate whether each significant industrial user needs such a plan. Any industrial user required to develop and implement an accidental discharge/slug control plan shall submit a plan which provides, at a minimum, the following:

(a) Description of discharge practices, including nonroutine batch discharges;

(b) Description of stored chemicals;

(c) Procedures for immediately notifying the General Manager of any accidental or Slug

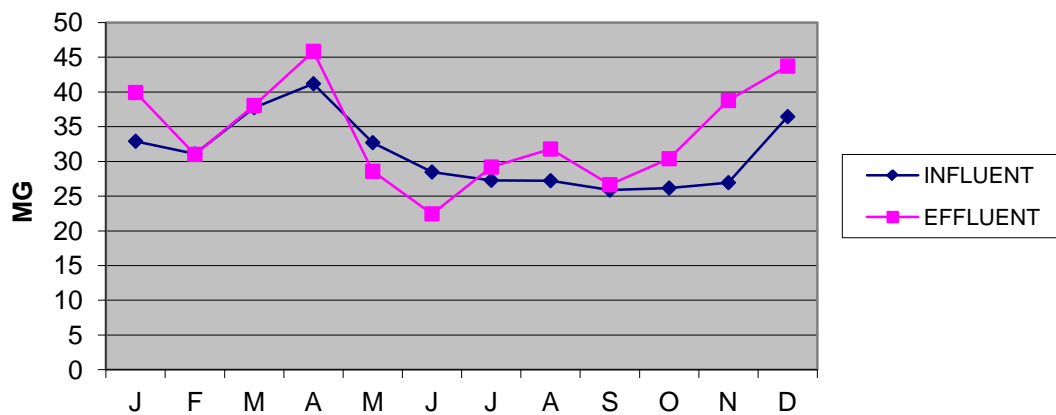
Discharge, as required by Rule 26.07 of this ordinance; and

(d) Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

McKinleyville Community Services District
Wastewater Management Facility
Influent and Effluent Flows in MGD 2012

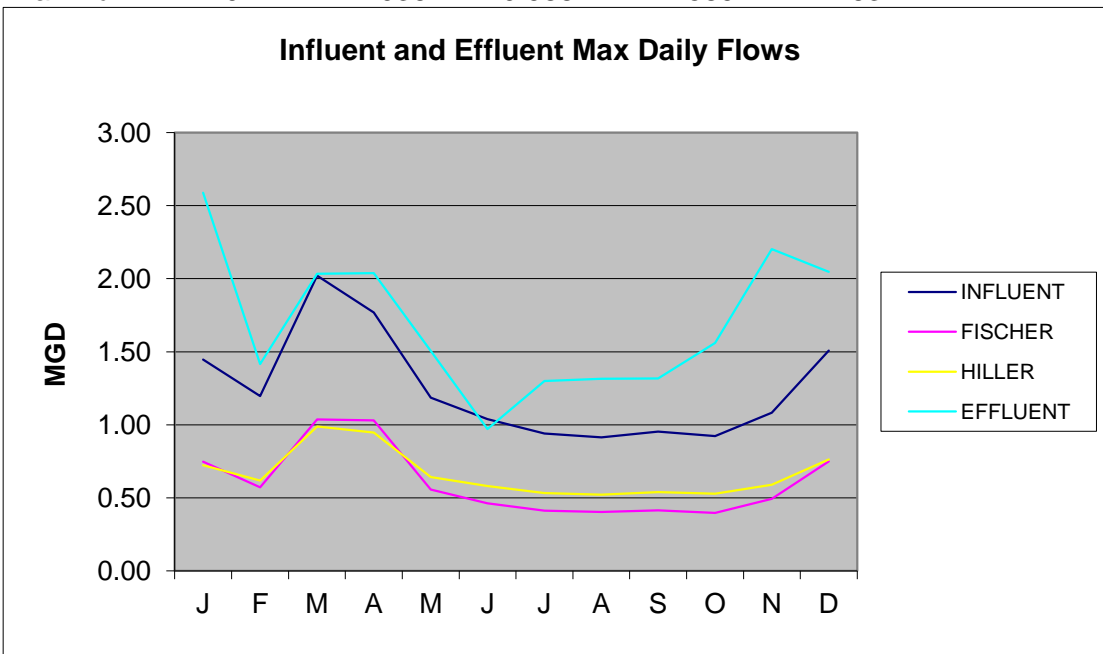
DATE	INFLUENT	FISCHER	HILLER	EFFLUENT	AVERAGE GPM
J	32.906	15.395	17.433	39.923	1141
F	31.079	14.922	16.217	31.011	676
M	37.744	17.583	19.241	38.053	896
A	41.192	20.480	21.496	45.844	1121
M	32.707	14.978	17.962	28.579	786
J	28.477	12.581	15.905	22.446	728
J	27.279	12.090	15.212	29.184	942
A	27.230	11.811	15.455	31.785	941
S	25.867	10.993	14.810	26.645	837
O	26.171	11.288	14.971	30.392	939
N	26.948	11.671	15.065	38.775	1062
D	36.449	17.309	18.997	43.725	1120
Total	374.049	171.101	202.764	406.362	
Average	31.171	14.258	16.897	33.864	932
Maximum	41.192	20.480	21.496	45.844	1141
Minimum	25.867	10.993	14.810	22.446	676

Influent and Effluent Totals 2012



McKinleyville Community Services District
Wastewater Management Facility
Influent and Effluent Max Daily Flows in MGD
2012

DATE	INFLUENT	FISCHER	HILLER	EFFLUENT	MAX GPM
J	1.446	0.747	0.723	2.589	2637
F	1.196	0.572	0.617	1.415	860
M	2.021	1.036	0.988	2.034	1424
A	1.768	1.029	0.946	2.039	1462
M	1.186	0.556	0.642	1.506	1110
J	1.038	0.463	0.580	0.970	1162
J	0.941	0.411	0.533	1.299	1716
A	0.914	0.404	0.522	1.315	1237
S	0.953	0.414	0.539	1.318	1322
O	0.922	0.396	0.528	1.561	1420
N	1.082	0.492	0.590	2.202	1550
D	1.508	0.750	0.763	2.046	1444
Maximum	2.021	1.036	0.988	2.589	2637



DATE	INFLUENT MGD	EFFLUENT MGD	EFFLUENT MAXIMUM GPM	PERK PONDS MGD	IRRIGATE MGD	RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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DAYS WITH NO DISCHARGE TO THE MAD RIVER = 18

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY

RIVER CFS - EFFLUENT FLOWS -

M-004

RIVER DILUTION

M-005

FEBRUARY 2012

M-006

DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	EFFLUENT MAXIMUM GPM	M-003 PERK PONDS MGD	M-007 IRRIGATE MGD	M-002 RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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1	1.196	1.415	598			1.415	1171	7002	1560	11670
2	1.144	1.22	572			1.220	1154	6598	1470	10997
3	1.098	1.090	549			1.090	1014	5566	1240	9276
4	1.152	1.251	576			1.251	873	5027	1120	8379
5	1.196	1.313	598			1.313	766	4578	1020	7631
6	1.102	1.255	551			1.255	766	4219	940	7032
7	1.092	1.255	546			1.255	720	3932	876	6553
8	1.106	1.232	553			1.232	735	4062	905	6770
9	1.094	1.062	547			1.062	687	3757	837	6262
10	1.016	1.041	784			1.041	458	3591	800	5985
11	1.078	1.105	814			1.105	483	3932	876	6553
12	1.137	1.089	770			1.089	511	3932	876	6553
13	1.178	1.061	747			1.061	1839	13735	3060	22892
14	1.091	1.127	853			1.127	1079	9202	2050	15336
15	1.091	1.223	860			1.223	799	6868	1530	11446
16	1.064	1.220	855			1.220	735	6284	1400	10473
17	1.018	1.190	850			1.190	665	5656	1260	9426
18	1.069	1.018	734			1.018	795	5835	1300	9725
19	1.061	0.970	685			0.970	760	5207	1160	8678
20	1.055	0.961	680			0.961	700	4758	1060	7930
21	0.994	0.952	679			0.952	688	4668	1040	7780
22	0.993	0.935	687			0.935	660	4533	1010	7556
23	0.953	0.683	636			0.683	681	4331	965	7219
24	0.961	0.865	612			0.865	649	3972	885	6621
25	0.998	0.886	625			0.886	663	4143	923	6905
26	1.068	0.878	618			0.878	676	4179	931	6965
27	1.008	0.873	615			0.873	625	3842	856	6404
28	1.011	0.903	706			0.903	503	3550	791	5917
29	1.055	0.938	715			0.938	1067	7631	1700	12718

TOTAL	31.079	31.011		0.000	0.000	31.011				
AVERAGE	1.072	1.069	676	0.000	0.000	1.069	790	5331	1188	8885
MAXIMUM	1.196	1.415	860	0.000	0.000	1.415	1839	13735	3060	22892
MINIMUM	0.953	0.683	546	0.000	0.000	0.683	458	3550	791	5917
DAYS	29	29		0	0	29				

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY

RIVER CFS - EFFLUENT FLOWS -

M-004

RIVER DILUTION

M-005

MARCH 2012

M-006

DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	EFFLUENT MAXIMUM GPM	M-003 PERK PONDS MGD	M-007 IRRIGATE MGD	M-002 RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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1	1.086	0.914	676			0.914	1720	11625	2590	19376
2	1.033	0.932	738			0.932	1399	10324	2300	17206
3	1.052	1.060	742			1.060	1010	7496	1670	12493
4	1.106	1.056	741			1.056	1030	7631	1700	12718
5	1.028	1.068	822			1.068	988	8124	1810	13541
6	1.022	1.079	810			0.000	970	7855	1750	13092
7	1.006	1.073	755			1.073	898	6778	1510	11296
8	0.981	0.954	776			0.954	694	5386	1200	8977
9	0.965	0.825	579			0.825	845	4893	1090	8154
10	0.997	0.827	581			0.827	811	4713	1050	7855
11	1.074	0.826	582			0.826	818	4758	1060	7930
12	0.946	0.899	815			0.899	688	5611	1250	9351
13	1.136	1.141	808			1.141	1689	13645	3040	22742
14	1.073	1.146	803			1.146	1968	15800	3520	26333
15	1.142	1.141	800			1.141	1526	12209	2720	20348
16	1.396	1.088	784			1.088	5783	45335	10100	75558
17	1.356	1.085	766			1.085	6915	52965	11800	88276
18	1.314	1.109	782			1.109	4316	33754	7520	56257
19	1.206	1.129	789			1.129	3032	23924	5330	39874
20	1.170	1.128	791			1.128	2111	16698	3720	27829
21	1.266	1.384	1131			1.384	2258	25540	5690	42567
22	1.351	1.501	1140			1.501	2445	27874	6210	46457
23	1.242	1.420	995			1.420	2093	20827	4640	34712
24	1.274	1.418	995			1.418	1656	16473	3670	27455
25	1.291	1.415	992			1.415	1611	15979	3560	26632
26	1.214	1.432	1017			1.432	1355	13780	3070	22967
27	1.261	1.605	1253			1.605	1050	13152	2930	21919
28	1.292	1.756	1228			1.756	4203	51619	11500	86032
29	1.468	1.755	1234			1.755	2848	35146	7830	58576
30	2.021	1.853	1413			1.853	4288	60596	13500	100994
31	1.975	2.034	1424			2.034	4634	65982	14700	109971

TOTAL	37.744	38.053		0.000	0.000	36.974				
AVERAGE	1.218	1.228	896	0.000	0.000	1.193	2182	20855	4646	34758
MAXIMUM	2.021	2.034	1424	0.000	0.000	2.034	6915	65982	14700	109971
MINIMUM	0.946	0.825	579	0.000	0.000	0.000	688	4713	1050	7855
DAYS	31	31								

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY

RIVER CFS - EFFLUENT FLOWS -

M-004

RIVER DILUTION

M-005

M-006

APRIL 2012

DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	EFFLUENT MAXIMUM GPM	M-003 PERK PONDS MGD	M-007 IRRIGATE MGD	M-002 RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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1	1.768	2.039	1424			2.039	4634	65982	14700	109971
2	1.668	2.032	1427			2.032	3120	44527	9920	74212
3	1.583	2.022	1412			2.022	2295	32408	7220	54013
4	1.624	2.021	1418			2.021	2200	31196	6950	51993
5	1.496	1.772	1417			1.772	1939	27470	6120	45784
6	1.410	1.642	1462			0.000	1483	21680	4830	36133
7	1.390	1.978	1449			1.978	1230	17820	3970	29700
8	1.359	1.999	1436			1.999	1097	15755	3510	26258
9	1.332	1.954	1379			1.954	1016	14004	3120	23341
10	1.299	1.887	1329			1.887	983	13062	2910	21770
11	1.349	1.864	1310			1.864	1062	13915	3100	23191
12	1.497	1.290	1310			1.290	1220	15979	3560	26632
13	1.491	0.997	759			0.997	4081	30971	6900	51619
14	1.407	1.156	856			1.156	3047	26079	5810	43465
15	1.397	1.267	917			1.267	2281	20917	4660	34861
16	1.343	1.303	922			1.303	1967	18134	4040	30223
17	1.311	1.348	1003			1.348	1624	16294	3630	27156
18	1.335	1.445	1016			1.445	1467	14902	3320	24837
19	1.367	1.443	1014			1.443	1877	19032	4240	31719
20	1.308	1.441	1011			1.441	1780	17999	4010	29999
21	1.311	1.447	1017			1.447	1518	15441	3440	25735
22	1.335	1.398	1005			1.398	1385	13915	3100	23191
23	1.266	1.202	898			1.202	1410	12658	2820	21096
24	1.194	1.086	798			1.086	1401	11177	2490	18628
25	1.187	1.115	793			1.115	1234	9785	2180	16309
26	1.280	1.119	791			1.119	1197	9471	2110	15785
27	1.230	1.313	1006			1.313	924	9291	2070	15486
28	1.211	1.430	1007			1.430	762	7676	1710	12793
29	1.253	1.413	994			1.413	695	6912	1540	11521
30	1.191	1.421	1044			1.421	598	6239	1390	10399

TOTAL	41.192	45.844		0.000	0.000	44.202				
AVERAGE	1.373	1.528	1121	0.000	0.000	1.473	1717	19356	4312	32261
MAXIMUM	1.768	2.039	1462	0.000	0.000	2.039	4634	65982	14700	109971
MINIMUM	1.187	0.997	759	0.000	0.000	0.000	598	6239	1390	10399
DAYS	30	30		0	0	30				

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY

RIVER CFS - EFFLUENT FLOWS -

M-004

RIVER DILUTION

M-005

M-006

MAY 2012

DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	EFFLUENT MAXIMUM GPM	M-003 PERK PONDS MGD	M-007 IRRIGATE MGD	M-002 RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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1	1.154	1.428	1004			1.428	581	5835	1300	9725
2	1.153	1.435	1018			1.435	578	5880	1310	9800
3	1.166	1.243	1007			1.243	490	4937	1100	8229
4	1.137	1.266	1062			1.266	554	5880	1310	9800
5	1.157	1.506	1066			1.506	505	5386	1200	8977
6	1.186	1.499	1067			1.499	454	4848	1080	8079
7	1.146	1.485	1060			1.485	418	4426	986	7376
8	1.122	1.475	1072			1.475	336	3600	802	6000
9	1.093	1.455	1027			1.455	276	2832	631	4721
10	1.090	0.828	1028			0.828	253	2599	579	4331
11	1.061	0.709	559			0.709	437	2442	544	4070
12	1.084	0.833	595			0.833	392	2334	520	3890
13	1.110	0.806	568			0.806	529	3007	670	5012
14	1.068	0.456	577			0.456	475	2738	610	4563
15	1.038	0.000	0			0.000	0	0		0
16	1.037	0.444	1110		0.444	0.000	0	0		0
17	1.026	0.837	752		0.837	0.000	0	0		0
18	0.989	0.730	693	0.420	0.310	0.000	0	0		0
19	0.999	0.790	560	0.790		0.000	0	0		0
20	1.041	0.773	547	0.773		0.000	0	0		0
21	1.021	0.603	700	0.295	0.308	0.000	0	0		0
22	0.995	0.744	748		0.744	0.000	0	0		0
23	0.994	0.892	863		0.892	0.000	0	0		0
24	1.004	0.985	799		0.985	0.000	0	0		0
25	0.971	0.732	806	0.356	0.376	0.000	0	0		0
26	0.954	0.640	456	0.640		0.000	0	0		0
27	0.953	0.627	451	0.627		0.000	0	0		0
28	1.040	0.621	446	0.621		0.000	0	0		0
29	1.001	0.746	853	0.241	0.505	0.000	0	0		0
30	0.959	0.975	868		0.975	0.000	0	0		0
31	0.958	1.016	992		1.016	0.000	0	0		0

TOTAL	32.707	28.579		4.763	7.392	16.424				
AVERAGE	1.055	0.922	786	0.529	0.672	0.530	202	1830	903	3051
MAXIMUM	1.186	1.506	1110	0.790	1.016	1.506	581	5880	1310	9800
MINIMUM	0.953	0.000	0	0.241	0.308	0.000	0	0	520	0
DAYS	31	30		9	11	14				

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 17

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY

RIVER CFS - EFFLUENT FLOWS -

M-004

RIVER DILUTION

M-005

NOVEMBER 2012

M-006

DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	EFFLUENT MAXIMUM GPM	M-003 PERK PONDS MGD	M-007 IRRIGATE MGD	M-002 RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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1	0.844	1.515	1282		1.515	0.000	0	0		0
2	0.822	1.284	1311	0.377	0.907	0.000	0	0		0
3	0.886	0.746	523	0.746		0.000	0	0		0
4	0.933	0.748	525	0.748		0.000	0	0		0
5	0.860	1.300	1269	0.315	0.985	0.000	0	0		0
6	0.835	1.721	1275		1.721	0.000	0	0		0
7	0.833	1.648	1157		1.648	0.000	0	0		0
8	0.876	1.433	1157		1.433	0.000	0	0		0
9	0.892	0.840	1050	0.177	0.663	0.000	0	0		0
10	0.881	0.299	227	0.299		0.000	0	0		0
11	0.886	0.310	231	0.310		0.000	0	0		0
12	0.925	0.300	214	0.300		0.000	0	0		0
13	0.845	1.095	1224	0.116	0.979	0.000	0	0		0
14	0.846	1.728	1227		1.728	0.000	0	0		0
15	0.837	1.715	1327		1.715	0.000	0	0		0
16	0.840	1.276	1198	0.463	0.813	0.000	0	0		0
17	0.942	0.853	605	0.853		0.000	0	0		0
18	0.927	0.862	606	0.862		0.000	0	0		0
19	0.883	1.389	1254	0.318	1.071	0.000	0	0		0
20	0.979	1.592	1365		0.571	1.021	139	1899	423	3164
21	0.968	1.386	985			1.386	1116	10997	2450	18328
22	0.948	1.895	1535			1.895	485	7451	1660	12418
23	0.865	2.202	1550			2.202	238	3685	821	6142
24	0.884	2.197	1550			2.197	137	2128	474	3546
25	0.953	1.595	1518			1.595	89	1356	302	2259
26	0.887	1.200	1280		1.200	0.000	84	1073	239	1788
27	0.866	1.690	1282		1.690	0.000	69	889	198	1481
28	0.893	1.391	972		1.391	0.000	88	853	190	1421
29	1.082	1.296	967		0.432	0.864	428	4138	922	6897
30	1.030	1.269	1181			1.269	3580	42283	9420	70471

TOTAL	26.948	38.775		5.884	20.462	12.429				
AVERAGE	0.898	1.293	1062	0.453	1.204	0.414	215	2558	1554	4264
MAXIMUM	1.082	2.202	1550	0.862	1.728	2.202	3580	42283	9420	70471
MINIMUM	0.822	0.299	214	0.116	0.432	0.000	0	0	190	0
DAYS	30	30		13	17					

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 22

DECEMBER 2012

M-006

RIVER DILUTION

	M-INF	M-001		M-003	M-007	M-002				
DATE	INFLUENT	EFFLUENT	EFFLUENT	PERK	IRRIGATE	RIVER	RIVER	MAXIMUM	RIVER	RIVER
	MGD	MGD	MAXIMUM	PONDS	MGD	MGD	DILUTION	G.P.M.	FLOW IN	FLOW IN
			GPM	MGD			100:1	DISCHARGE	CFS	GPS
								FOR 100:1		

1	1.189	1.737	1389			1.737	1642	22802	5080	38003
2	1.508	1.884	1384			1.884	29870	413400	92100	689000
3	1.153	1.712	1357			1.712	3043	41295	9200	68825
4	1.125	1.660	1444			1.660	1657	23924	5330	39874
5	1.180	2.046	1431			2.046	3294	47130	10500	78551
6	1.094	1.739	1426			1.739	2329	33216	7400	55359
7	1.056	1.421	1042			1.421	1943	20244	4510	33739
8	1.052	1.803	1414			1.803	1041	14723	3280	24538
9	1.094	1.980	1402			1.980	784	10997	2450	18328
10	1.034	1.571	1352			1.571	644	8708	1940	14513
11	1.022	1.128	973			1.128	747	7272	1620	12119
12	1.028	1.111	786			1.111	1114	8753	1950	14588
13	1.002	1.126	799			1.126	910	7272	1620	12119
14	0.966	0.893	800			0.893	769	6149	1370	10249
15	1.019	0.761	761			0.761	702	5341	1190	8902
16	1.075	1.084	765			1.084	692	5297	1180	8828
17	1.080	1.064	749			1.064	2763	20692	4610	34487
18	1.056	1.076	766			1.076	2608	19974	4450	33290
19	1.030	1.089	763			1.089	1924	14678	3270	24463
20	1.196	1.077	759			1.077	1478	11222	2500	18703
21	1.366	1.054	739			1.054	3918	28951	6450	48252
22	1.508	1.393	1227			1.393	4353	53414	11900	89024
23	1.385	1.773	1245			1.773	3065	38153	8500	63589
24	1.295	1.795	1262			1.795	2568	32408	7220	54013
25	1.266	1.798	1256			1.798	1855	23296	5190	38826
26	1.433	0.839	1294			0.839	2355	30478	6790	50796
27	1.341	0.779	1421			0.779	1759	25002	5570	41669
28	1.261	0.976	700			0.976	2629	18403	4100	30672
29	1.234	1.547	1327			1.547	1089	14453	3220	24089
30	1.228	1.904	1338			1.904	872	11670	2600	19451
31	1.173	1.905	1337			1.905	729	9740	2170	16234

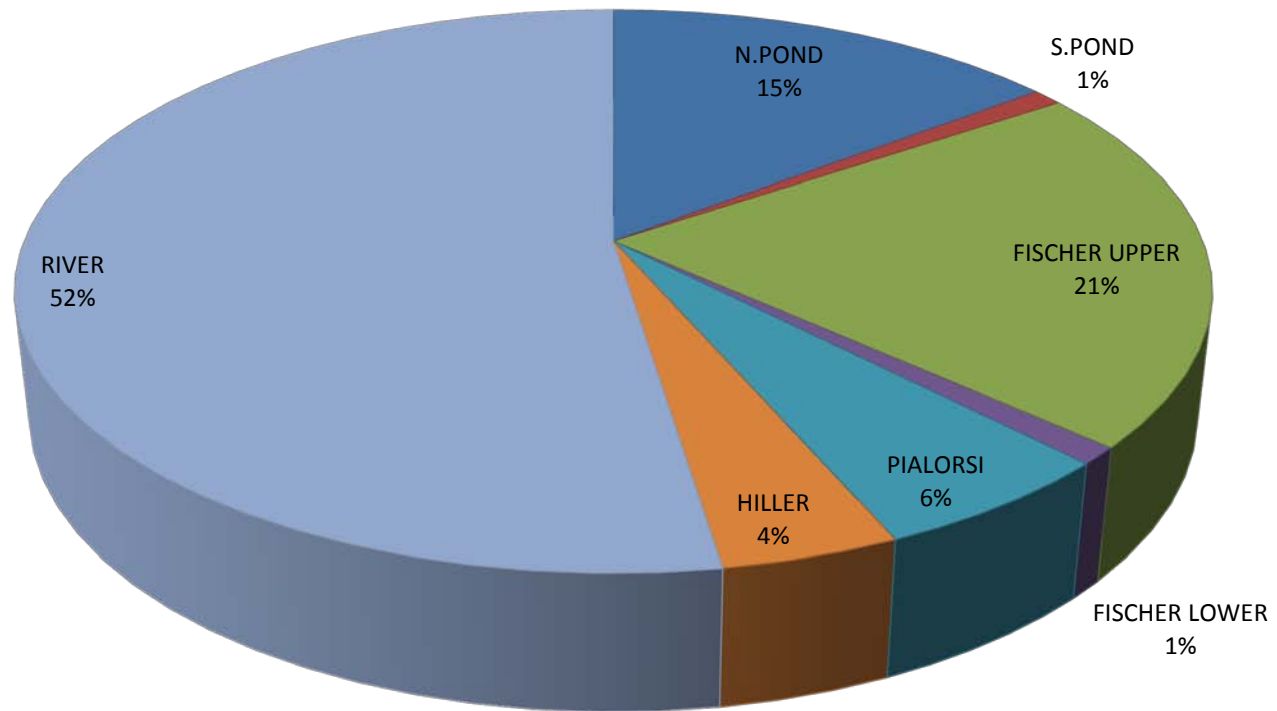
TOTAL	36.449	43.725		0.000	0.000	43.725				
AVERAGE	1.176	1.410	1120	0.000	0.000	1.410	2747	33195	7395	55326
MAXMUM	1.508	2.046	1444	0.000	0.000	2.046	29870	413400	92100	689000
M N MUM	0.966	0.761	700	0.000	0.000	0.761	644	5297	1180	8828
DAYS	31	31	0	0	0	31				

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
EFFLUENT DISCHARGE DISPOSAL TOTALS 2012

Discharge Monitoring DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	002 M-003 N.POND MGD	002 M-003 S.POND MGD	004 M-005 FISCHER MGD UPPER	003 M-004 FISCHER MGD LOWER	006 M-007 PIALORSI MGD	005 M-006 HILLER MGD	IRRGATE TOTAL MGD	001 M-002 RIVER MGD
JANUARY	32.9	39.9	0.0	3.9	9.0	0.0	0.0	1.4	10.4	25.6
FEBRUARY	31.1	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
MARCH	37.7	38.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1
APRIL	41.2	45.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.8
MAY	32.7	28.6	4.8	0.0	4.9	0.0	1.4	1.1	7.4	16.4
JUNE	28.5	22.4	8.2	0.0	7.7	0.8	3.4	2.4	14.2	0.0
JULY	27.3	29.2	11.8	0.0	10.7	1.1	3.5	2.2	17.4	0.0
AUGUST	27.2	31.8	9.0	0.0	14.1	0.8	4.9	3.0	22.8	0.0
SEPTEMBER	25.9	26.6	10.7	0.0	9.4	1.0	3.4	2.2	16.0	0.0
OCTOBER	26.2	30.4	9.2	0.0	13.8	0.3	4.4	2.7	21.2	0.0
NOVEMBER	26.9	38.8	5.9	0.0	16.0	0.1	2.6	1.7	20.5	12.4
DECEMBER	36.4	43.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.7
Totals	374.0	406.4	59.5	3.9	85.6	4.1	23.5	16.7	129.9	213.1

Effluent Distribution



McKINLEYVILLE COMMUNITY SERVICES DISTRICT WASTEWATER MANAGEMENT FACILITY EFFLUENT DISCHARGE DISPOSAL

JANUARY 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002	
	DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	0.966	0.458	322		0.458					0.000	0.000	
2	1.003	0.461	323		0.461					0.000	0.000	
3	0.914	0.481	901		0.189	0.256			0.036	0.292	0.000	
4	0.910	0.079	2637			0.079				0.079	0.000	
5	0.902	0.743	875			0.651			0.092	0.743	0.000	
6	0.875	0.933	886		0.307	0.547			0.079	0.626	0.000	
7	0.925	0.552	393		0.552					0.000	0.000	
8	0.971	0.547	391		0.547					0.000	0.000	
9	0.910	0.942	862		0.205	0.636			0.101	0.737	0.000	
10	0.879	1.319	1740			1.161			0.158	1.319	0.000	
11	0.901	1.267	908			1.095			0.172	1.267	0.000	
12	0.893	1.234	883			1.068			0.166	1.234	0.000	
13	0.848	0.809	883		0.225	0.508			0.076	0.584	0.000	
14	0.895	0.407	288		0.407					0.000	0.000	
15	0.935	0.414	295		0.414					0.000	0.000	
16	0.952	0.915	862		0.159	0.657			0.099	0.756	0.000	
17	0.891	1.218	854			1.048			0.170	1.218	0.000	
18	0.995	1.120	855			0.953			0.167	1.120	0.000	
19	1.346	1.016	1059			0.356			0.066	0.422	0.594	
20	1.406	1.780	1461							0.000	1.780	
21	1.446	2.237	1832							0.000	2.237	
22	1.319	2.589	1837							0.000	2.589	
23	1.185	2.491	1748							0.000	2.491	
24	1.112	2.301	1713							0.000	2.301	
25	1.288	1.909	1574							0.000	1.909	
26	1.318	1.818	1289							0.000	1.818	
27	1.210	2.115	1675							0.000	2.115	
28	1.231	2.198	1654							0.000	2.198	
29	1.248	2.026	1537							0.000	2.026	
30	1.137	2.012	1407							0.000	2.012	
31	1.095	1.532	1413							0.000	1.532	
TOTAL	32.906	39.923		0.000	3.924	9.015	0.000	0.000	1.382	10.397	25.602	
AVERAGE	1.061	1.288	1141	0.000	0.000	0.000	0.000	0.000	0.000	0.335	0.826	
MAXIMUM	1.446	2.589	2637	0.000	0.552	1.161	0.000	0.000	0.172	1.319	2.589	
MINIMUM	0.848	0.079	288	0.000	0.159	0.079	0.000	0.000	0.036	0.000	0.000	
DAYS	31	31		0	11	13	0	0	12	13	13	

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
EFFLUENT DISCHARGE DISPOSAL**

MARCH 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002
DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	1.086	0.914	676							0.000	0.914
2	1.033	0.932	738							0.000	0.932
3	1.052	1.060	742							0.000	1.060
4	1.106	1.056	741							0.000	1.056
5	1.028	1.068	822							0.000	1.068
6	1.022	1.079	810							0.000	1.079
7	1.006	1.073	755							0.000	1.073
8	0.981	0.954	776							0.000	0.954
9	0.965	0.825	579							0.000	0.825
10	0.997	0.827	581							0.000	0.827
11	1.074	0.826	582							0.000	0.826
12	0.946	0.899	815							0.000	0.899
13	1.136	1.141	808							0.000	1.141
14	1.073	1.146	803							0.000	1.146
15	1.142	1.141	800							0.000	1.141
16	1.396	1.088	784							0.000	1.088
17	1.356	1.085	766							0.000	1.085
18	1.314	1.109	782							0.000	1.109
19	1.206	1.129	789							0.000	1.129
20	1.170	1.128	791							0.000	1.128
21	1.266	1.384	1131							0.000	1.384
22	1.351	1.501	1140							0.000	1.501
23	1.242	1.420	995							0.000	1.420
24	1.274	1.418	995							0.000	1.418
25	1.291	1.415	992							0.000	1.415
26	1.214	1.432	1017							0.000	1.432
27	1.261	1.605	1253							0.000	1.605
28	1.292	1.756	1228							0.000	1.756
29	1.468	1.755	1234							0.000	1.755
30	2.021	1.853	1413							0.000	1.853
31	1.975	2.034	1424							0.000	2.034
TOTAL	37.744	38.053		0.000	0.000	0.000	0.000	0.000	0.000	0.000	38.053
AVERAGE	1.218	1.228	896	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.228
MAXIMUM	2.021	2.034	1424	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.034
MINIMUM	0.946	0.825	579	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.825
DAYS	31	31		0	0	0	0	0	0	0	31

DAYS WITH NO DISCHARGE = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT WASTEWATER MANAGEMENT FACILITY EFFLUENT DISCHARGE DISPOSAL

APRIL 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002	
	DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	1.768	2.039	1424							0.000	2.039	
2	1.668	2.032	1427							0.000	2.032	
3	1.583	2.022	1412							0.000	2.022	
4	1.624	2.021	1418							0.000	2.021	
5	1.496	1.772	1417							0.000	1.772	
6	1.410	1.642	1462							0.000	1.642	
7	1.390	1.978	1449							0.000	1.978	
8	1.359	1.999	1436							0.000	1.999	
9	1.332	1.954	1379							0.000	1.954	
10	1.299	1.887	1329							0.000	1.887	
11	1.349	1.864	1310							0.000	1.864	
12	1.497	1.290	1310							0.000	1.290	
13	1.491	0.997	759							0.000	0.997	
14	1.407	1.156	856							0.000	1.156	
15	1.397	1.267	917							0.000	1.267	
16	1.343	1.303	922							0.000	1.303	
17	1.311	1.348	1003							0.000	1.348	
18	1.335	1.445	1016							0.000	1.445	
19	1.367	1.443	1014							0.000	1.443	
20	1.308	1.441	1011							0.000	1.441	
21	1.311	1.447	1017							0.000	1.447	
22	1.335	1.398	1005							0.000	1.398	
23	1.266	1.202	898							0.000	1.202	
24	1.194	1.086	798							0.000	1.086	
25	1.187	1.115	793							0.000	1.115	
26	1.280	1.119	791							0.000	1.119	
27	1.230	1.313	1006							0.000	1.313	
28	1.211	1.430	1007							0.000	1.430	
29	1.253	1.413	994							0.000	1.413	
30	1.191	1.421	1044							0.000	1.421	
TOTAL	41.192	45.844		0.000	0.000	0.000	0.000	0.000	0.000	0.000	45.844	
AVERAGE	1.373	1.528	1121	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.528	
MAXIMUM	1.768	2.039	1462	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.039	
MINIMUM	1.187	0.997	759	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.997	
DAYS	30	30		0	0	0	0	0	0	0	30	
DAYS WITH NO DISCHARGE = 0												

McKINLEYVILLE COMMUNITY SERVICES DISTRICT WASTEWATER MANAGEMENT FACILITY EFFLUENT DISCHARGE DISPOSAL

MAY 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002	
	DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	1.154	1.428	1004							0.000	1.428	
2	1.153	1.435	1018							0.000	1.435	
3	1.166	1.243	1007							0.000	1.243	
4	1.137	1.266	1062							0.000	1.266	
5	1.157	1.506	1066							0.000	1.506	
6	1.186	1.499	1067							0.000	1.499	
7	1.146	1.485	1060							0.000	1.485	
8	1.122	1.475	1072							0.000	1.475	
9	1.093	1.455	1027							0.000	1.455	
10	1.090	0.828	1028							0.000	0.828	
11	1.061	0.709	559							0.000	0.709	
12	1.084	0.833	595							0.000	0.833	
13	1.110	0.806	568							0.000	0.806	
14	1.068	0.456	577							0.000	0.456	
15	1.038	0.000	0							0.000	0.000	
16	1.037	0.444	1110			0.375			0.069	0.444	0.000	
17	1.026	0.837	752			0.700			0.137	0.837	0.000	
18	0.989	0.730	693	0.420		0.227			0.083	0.310	0.000	
19	0.999	0.790	560	0.790						0.000	0.000	
20	1.041	0.773	547	0.773						0.000	0.000	
21	1.021	0.603	700	0.295		0.261		0.030	0.017	0.308	0.000	
22	0.995	0.744	748			0.500		0.150	0.094	0.744	0.000	
23	0.994	0.892	863			0.530		0.222	0.140	0.892	0.000	
24	1.004	0.985	799			0.614		0.228	0.143	0.985	0.000	
25	0.971	0.732	806	0.356		0.176		0.119	0.081	0.376	0.000	
26	0.954	0.640	456	0.640						0.000	0.000	
27	0.953	0.627	451	0.627						0.000	0.000	
28	1.040	0.621	446	0.621						0.000	0.000	
29	1.001	0.746	853	0.241		0.293		0.132	0.080	0.505	0.000	
30	0.959	0.975	868			0.605		0.231	0.139	0.975	0.000	
31	0.958	1.016	992			0.618		0.246	0.152	1.016	0.000	
TOTAL	32.707	28.579		4.763	0.000	4.899	0.000	1.358	1.135	7.392	16.424	
AVERAGE	1.055	0.922	786	0.529	0.000	0.445	0.000	0.170	0.103	0.238	0.530	
MAXIMUM	1.186	1.506	1110	0.790	0.000	0.700	0.000	0.246	0.152	1.016	1.506	
MINIMUM	0.953	0.000	0	0.241	0.000	0.176	0.000	0.030	0.017	0.000	0.000	
DAYS	31	30		9	0	11	0	8	11	11	14	

DAYS WITH NO DISCHARGE = 1

McKINLEYVILLE COMMUNITY SERVICES DISTRICT WASTEWATER MANAGEMENT FACILITY EFFLUENT DISCHARGE DISPOSAL

JUNE 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002	
	DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
	1	0.947	0.868	1162	0.389		0.262		0.138	0.079	0.479	0.000
	2	0.962	0.734	519	0.734						0.000	0.000
	3	1.038	0.719	516	0.719						0.000	0.000
	4	1.030	0.579	775	0.263		0.258		0.036	0.022	0.316	0.000
	5	1.017	0.638	776			0.525		0.032	0.081	0.638	0.000
	6	0.983	0.910	796			0.532		0.234	0.144	0.910	0.000
	7	0.993	0.945	811			0.572		0.228	0.145	0.945	0.000
	8	0.964	0.833	814	0.297		0.317		0.137	0.082	0.536	0.000
	9	0.956	0.559	396	0.559						0.000	0.000
	10	0.965	0.551	390	0.551						0.000	0.000
	11	0.958	0.670	788	0.211		0.261		0.126	0.072	0.459	0.000
	12	0.966	0.866	764			0.492		0.232	0.142	0.866	0.000
	13	0.954	0.884	819			0.504		0.239	0.141	0.884	0.000
	14	0.953	0.970	842			0.584		0.246	0.140	0.970	0.000
	15	0.945	0.874	846	0.310		0.348		0.137	0.079	0.564	0.000
	16	0.953	0.559	397	0.559						0.000	0.000
	17	0.975	0.548	392	0.548						0.000	0.000
	18	0.954	0.733	850	0.200		0.308		0.145	0.080	0.533	0.000
	19	0.915	0.921	856			0.523		0.252	0.146	0.921	0.000
	20	0.914	0.792	686			0.393		0.254	0.145	0.792	0.000
	21	0.899	0.836	1146			0.423		0.268	0.145	0.836	0.000
	22	0.929	0.697	1089	0.278		0.214		0.132	0.073	0.419	0.000
	23	0.951	0.502	357	0.502						0.000	0.000
	24	0.941	0.495	350	0.495						0.000	0.000
	25	0.929	0.535	710	0.183		0.102		0.149	0.101	0.352	0.000
	26	0.904	0.711	821			0.293		0.264	0.154	0.711	0.000
	27	0.899	0.963	830			0.805			0.158	0.963	0.000
	28	0.895	0.875	997				0.600	0.120	0.155	0.875	0.000
	29	0.887	0.807	742	0.543			0.183		0.081	0.264	0.000
	30	0.901	0.872	610	0.872						0.000	0.000
TOTAL		28.477	22.446		8.213	0.000	7.716	0.783	3.369	2.365	14.233	0.000
AVERAGE		0.949	0.748	728	0.456	0.000	0.406	0.392	0.177	0.113	0.474	0.000
MAXIMUM		1.038	0.970	1162	0.872	0.000	0.805	0.600	0.268	0.158	0.970	0.000
MINIMUM		0.887	0.495	350	0.183	0.000	0.102	0.183	0.032	0.022	0.000	0.000
DAYS		30	30		18	0	19	2	19	21	21	

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
EFFLUENT DISCHARGE DISPOSAL**

JULY 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002
DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	0.928	0.856	602	0.856						0.000	0.000
2	0.901	1.007	1290	0.433		0.204	0.192	0.096	0.082	0.574	0.000
3	0.878	1.233	1293	0.451		0.496	0.022	0.145	0.119	0.782	0.000
4	0.878	0.817	579	0.817						0.000	0.000
5	0.882	1.011	1104	0.313		0.403	0.050	0.129	0.116	0.698	0.000
6	0.897	0.936	1100	0.419		0.263	0.036	0.132	0.086	0.517	0.000
7	0.879	0.727	537	0.727						0.000	0.000
8	0.879	0.724	507	0.724						0.000	0.000
9	0.901	0.966	1142	0.259		0.375	0.107	0.139	0.086	0.707	0.000
10	0.878	1.211	1110			0.708	0.112	0.237	0.154	1.211	0.000
11	0.877	1.197	1209			0.766	0.045	0.234	0.152	1.197	0.000
12	0.865	1.148	988			0.753		0.246	0.149	1.148	0.000
13	0.856	1.087	1162	0.402		0.443	0.030	0.133	0.079	0.685	0.000
14	0.854	0.738	516	0.738						0.000	0.000
15	0.893	0.738	512	0.738						0.000	0.000
16	0.885	0.490	1140	0.276		0.126	0.038	0.030	0.020	0.214	0.000
17	0.877	0.000	0							0.000	0.000
18	0.879	0.707	1716			0.504		0.123	0.080	0.707	0.000
19	0.865	1.196	1149			0.784	0.037	0.240	0.135	1.196	0.000
20	0.845	1.126	1139	0.463		0.446	0.012	0.132	0.073	0.663	0.000
21	0.834	0.840	594	0.840						0.000	0.000
22	0.903	0.811	577	0.811						0.000	0.000
23	0.889	0.990	1147	0.312		0.385	0.086	0.129	0.078	0.678	0.000
24	0.865	1.253	1195			0.772	0.095	0.243	0.143	1.253	0.000
25	0.879	1.226	1200			0.779	0.039	0.252	0.156	1.226	0.000
26	0.876	1.195	1138			0.744	0.030	0.267	0.154	1.195	0.000
27	0.855	1.109	1137	0.404		0.436	0.027	0.152	0.090	0.705	0.000
28	0.864	0.768	539	0.768						0.000	0.000
29	0.941	0.776	544	0.776						0.000	0.000
30	0.898	1.002	1142	0.286		0.418	0.076	0.149	0.073	0.716	0.000
31	0.878	1.299	1191			0.858	0.035	0.258	0.148	1.299	0.000
TOTAL	27.279	29.184		11.813	0.000	10.663	1.069	3.466	2.173	17.371	0.000
AVERAGE	0.880	0.941	942	0.563	0.000	0.533	0.059	0.173	0.109	0.560	0.000
MAXIMUM	0.941	1.299	1716	0.856	0.000	0.858	0.192	0.267	0.156	1.299	0.000
MINIMUM	0.834	0.000	0	0.259	0.000	0.126	0.012	0.030	0.020	0.000	0.000
DAYS	31	30		21	0	20	18	20	20	20	31

DAYS WITH NO DISCHARGE = 0

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
EFFLUENT DISCHARGE DISPOSAL**

AUGUST 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002
DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	0.870	1.312	1232			0.888	0.033	0.249	0.142	1.312	0.000
2	0.861	1.315	1237			0.874	0.038	0.255	0.148	1.315	0.000
3	0.857	1.155	1227	0.411		0.487	0.030	0.148	0.079	0.744	0.000
4	0.867	0.753	527	0.753						0.000	0.000
5	0.894	0.750	526	0.750						0.000	0.000
6	0.885	0.973	1158	0.316		0.378	0.070	0.133	0.076	0.657	0.000
7	0.875	1.270	1159			0.788	0.074	0.261	0.147	1.270	0.000
8	0.901	1.181	953			0.703	0.035	0.273	0.170	1.181	0.000
9	0.870	1.161	1073			0.644	0.029	0.275	0.213	1.161	0.000
10	0.858	1.031	960	0.391		0.290	0.079	0.149	0.122	0.640	0.000
11	0.861	0.757	532	0.757						0.000	0.000
12	0.902	0.766	541	0.766						0.000	0.000
13	0.896	0.907	996	0.276		0.350	0.048	0.148	0.085	0.631	0.000
14	0.893	1.266	1144			0.728	0.074	0.274	0.190	1.266	0.000
15	0.906	1.291	1144			0.833		0.271	0.187	1.291	0.000
16	0.885	1.263	1106			0.773		0.277	0.213	1.263	0.000
17	0.875	1.101	1067	0.402		0.462		0.149	0.088	0.699	0.000
18	0.879	0.751	526	0.751						0.000	0.000
19	0.914	0.751	526	0.751						0.000	0.000
20	0.889	0.949	1092	0.300		0.373	0.049	0.145	0.082	0.649	0.000
21	0.877	1.255	1092			0.772	0.055	0.278	0.150	1.255	0.000
22	0.878	1.230	1049			0.820		0.274	0.136	1.230	0.000
23	0.866	1.247	1049			0.829		0.276	0.142	1.247	0.000
24	0.862	1.070	1050	0.362		0.473		0.152	0.083	0.708	0.000
25	0.871	0.663	464	0.663						0.000	0.000
26	0.912	0.665	465	0.665						0.000	0.000
27	0.894	0.899	1137	0.272		0.365	0.055	0.138	0.069	0.627	0.000
28	0.855	1.281	1226			0.820	0.086	0.227	0.148	1.281	0.000
29	0.867	1.023	1113			0.583	0.032	0.263	0.145	1.023	0.000
30	0.868	0.885	827			0.573	0.029	0.140	0.143	0.885	0.000
31	0.842	0.864	960	0.367		0.251	0.022	0.145	0.079	0.497	0.000
TOTAL	27.230	31.785		8.953	0.000	14.057	0.838	4.900	3.037	22.832	0.000
AVERAGE	0.878	1.025	941	0.527	0.000	0.611	0.049	0.213	0.132	0.737	0.000
MAXIMUM	0.914	1.315	1237	0.766	0.000	0.888	0.086	0.278	0.213	1.315	0.000
MINIMUM	0.842	0.663	464	0.272	0.000	0.251	0.022	0.133	0.069	0.000	0.000
DAYS	31	31		17		23	17	23	23	23	0

DAYS WITH NO DISCHARGE = 0

SEPTEMBER 2012

DAYS WITH NO DISCHARGE = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT WASTEWATER MANAGEMENT FACILITY EFFLUENT DISCHARGE DISPOSAL

OCTOBER 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002	
	DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
	1	0.833	1.009	1195	0.272		0.440	0.073	0.145	0.079	0.737	0.000
	2	0.819	1.314	1230			0.912		0.252	0.150	1.314	0.000
	3	0.817	1.138	1131			0.710	0.030	0.250	0.148	1.138	0.000
	4	0.811	1.090	1122			0.675	0.029	0.247	0.139	1.090	0.000
	5	0.788	0.895	1110	0.284		0.351	0.032	0.152	0.076	0.611	0.000
	6	0.835	0.538	379	0.538						0.000	0.000
	7	0.902	0.548	386	0.548						0.000	0.000
	8	0.848	0.553	387	0.553						0.000	0.000
	9	0.815	0.644	1005	0.209		0.210		0.145	0.080	0.435	0.000
	10	0.838	0.798	755			0.354		0.264	0.180	0.798	0.000
	11	0.821	0.838	758			0.424		0.260	0.154	0.838	0.000
	12	0.796	0.846	667	0.480		0.173		0.125	0.068	0.366	0.000
	13	0.850	0.797	559	0.797						0.000	0.000
	14	0.889	0.794	556	0.794						0.000	0.000
	15	0.844	0.888	1025	0.300		0.368		0.142	0.078	0.588	0.000
	16	0.884	1.165	1172			0.713	0.031	0.270	0.151	1.165	0.000
	17	0.845	1.125	1420			0.675	0.029	0.269	0.152	1.125	0.000
	18	0.816	1.078	1066			0.641	0.028	0.263	0.146	1.078	0.000
	19	0.796	0.993	1020	0.410		0.335	0.022	0.145	0.081	0.583	0.000
	20	0.860	0.745	526	0.745						0.000	0.000
	21	0.903	0.753	537	0.753						0.000	0.000
	22	0.922	0.706	851	0.290		0.333			0.083	0.416	0.000
	23	0.865	1.132	1310			0.837		0.149	0.146	1.132	0.000
	24	0.863	1.561	1350			1.118	0.027	0.264	0.152	1.561	0.000
	25	0.836	1.532	1300			1.090	0.022	0.271	0.149	1.532	0.000
	26	0.824	1.305	1305	0.413		0.672		0.145	0.075	0.892	0.000
	27	0.864	0.754	530	0.754						0.000	0.000
	28	0.907	0.751	527	0.751						0.000	0.000
	29	0.847	1.035	1286	0.292		0.532		0.142	0.069	0.743	0.000
	30	0.815	1.539	1323			1.089	0.025	0.272	0.153	1.539	0.000
	31	0.818	1.528	1321			1.100		0.274	0.154	1.528	0.000
TOTAL	26.171	30.392		9.183	0.000	13.752	0.348	4.446	2.663	21.209	0.000	
AVERAGE	0.844	0.980	939	0.510	0.000	0.625	0.032	0.212	0.121	0.684	0.000	
MAXIMUM	0.922	1.561	1420	0.797	0.000	1.118	0.073	0.274	0.180	1.561	0.000	
MINIMUM	0.788	0.538	379	0.209	0.000	0.173	0.022	0.125	0.068	0.000	0.000	
DAYS	31	31		18	0	22	11	21	22	22		

DAYS WITH NO DISCHARGE = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT WASTEWATER MANAGEMENT FACILITY EFFLUENT DISCHARGE DISPOSAL

NOVEMBER 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002	
	DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
	1	0.844	1.515	1282			1.095		0.264	0.156	1.515	0.000
	2	0.822	1.284	1311	0.377		0.667		0.155	0.085	0.907	0.000
	3	0.886	0.746	523	0.746						0.000	0.000
	4	0.933	0.748	525	0.748						0.000	0.000
	5	0.860	1.300	1269	0.315		0.653	0.048	0.185	0.099	0.985	0.000
	6	0.835	1.721	1275			1.201	0.050	0.304	0.166	1.721	0.000
	7	0.833	1.648	1157			1.187		0.301	0.160	1.648	0.000
	8	0.876	1.433	1157			0.973		0.297	0.163	1.433	0.000
	9	0.892	0.840	1050	0.177		0.445		0.145	0.073	0.663	0.000
	10	0.881	0.299	227	0.299						0.000	0.000
	11	0.886	0.310	231	0.310						0.000	0.000
	12	0.925	0.300	214	0.300						0.000	0.000
	13	0.845	1.095	1224	0.116		0.668		0.203	0.108	0.979	0.000
	14	0.846	1.728	1227			1.260		0.303	0.165	1.728	0.000
	15	0.837	1.715	1327			1.242		0.306	0.167	1.715	0.000
	16	0.840	1.276	1198	0.463		0.625		0.119	0.069	0.813	0.000
	17	0.942	0.853	605	0.853						0.000	0.000
	18	0.927	0.862	606	0.862						0.000	0.000
	19	0.883	1.389	1254	0.318		0.963			0.108	1.071	0.000
	20	0.979	1.592	1365			0.510			0.061	0.571	1.021
	21	0.968	1.386	985							0.000	1.386
	22	0.948	1.895	1535							0.000	1.895
	23	0.865	2.202	1550							0.000	2.202
	24	0.884	2.197	1550							0.000	2.197
	25	0.953	1.595	1518							0.000	1.595
	26	0.887	1.200	1280			1.200				1.200	0.000
	27	0.866	1.690	1282			1.532			0.158	1.690	0.000
	28	0.893	1.391	972			1.391				1.391	0.000
	29	1.082	1.296	967			0.432				0.432	0.864
	30	1.030	1.269	1181							0.000	1.269
TOTAL		26.948	38.775		5.884	0.000	16.044	0.098	2.582	1.738	20.462	12.429
AVERAGE		0.898	1.293	1062	0.453	0.000	0.944	0.049	0.235	0.124	0.682	0.414
MAXIMUM		1.082	2.202	1550	0.862	0.000	1.532	0.050	0.306	0.167	1.728	2.202
MINIMUM		0.822	0.299	214	0.116	0.000	0.432	0.048	0.119	0.061	0.000	0.000
DAYS		30	30		13	0	17	2	11	14	17	8

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
EFFLUENT DISCHARGE DISPOSAL**

DECEMBER 2012

Discharge Monitoring	M-INF	M-001		002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006		001 M-002
DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	1.189	1.737	1389							0.000	1.737
2	1.508	1.884	1384							0.000	1.884
3	1.153	1.712	1357							0.000	1.712
4	1.125	1.660	1444							0.000	1.660
5	1.180	2.046	1431							0.000	2.046
6	1.094	1.739	1426							0.000	1.739
7	1.056	1.421	1042							0.000	1.421
8	1.052	1.803	1414							0.000	1.803
9	1.094	1.980	1402							0.000	1.980
10	1.034	1.571	1352							0.000	1.571
11	1.022	1.128	973							0.000	1.128
12	1.028	1.111	786							0.000	1.111
13	1.002	1.126	799							0.000	1.126
14	0.966	0.893	800							0.000	0.893
15	1.019	0.761	761							0.000	0.761
16	1.075	1.084	765							0.000	1.084
17	1.080	1.064	749							0.000	1.064
18	1.056	1.076	766							0.000	1.076
19	1.030	1.089	763							0.000	1.089
20	1.196	1.077	759							0.000	1.077
21	1.366	1.054	739							0.000	1.054
22	1.508	1.393	1227							0.000	1.393
23	1.385	1.773	1245							0.000	1.773
24	1.295	1.795	1262							0.000	1.795
25	1.266	1.798	1256							0.000	1.798
26	1.433	0.839	1294							0.000	0.839
27	1.341	0.779	1421							0.000	0.779
28	1.261	0.976	700							0.000	0.976
29	1.234	1.547	1327							0.000	1.547
30	1.228	1.904	1338							0.000	1.904
31	1.173	1.905	1337							0.000	1.905
TOTAL	36.449	43.725		0.000	0.000	0.000	0.000	0.000	0.000	0.000	43.725
AVERAGE	1.176	1.410	1120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.410
MAXIMUM	1.508	2.046	1444	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.046
MINIMUM	0.966	0.761	700	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.761
DAYS	31	31		0	0	0	0	0	0	0	31

DAYS WITH NO DISCHARGE = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: JANUARY

YEAR: 2012

DATE	INFLUENT FLOW	EFFLUENT FLOW	EFFLUENT MAXIMUM	RIVER	INFLUENT MONITORING		(C°)		B.O.D.	NFR	EFFLUENT MONITORING			RIVER	SETTLABLE	3X5
	M.G.D.	M.G.D.	GPM	CFS	B.O.D.	N.F.R.	pH	TEMP	mg/L	mg/L	AMMONIA	CL ₂ RES.	CL ₂ RES.	CL ₂ RES.	SOLIDS	TOTAL COLIFORM
1	0.966	0.458	322													
2	1.003	0.461	323													
3	0.914	0.481	901				7.0	10.4			28	2.1				<1.8
4	0.910	0.079	2637				7.0	9.7			28	1.7				
5	0.902	0.743	875				7.1	10.8			32	0.2				
6	0.875	0.933	886		260	220	7	10.2	16	35	32	1			<0.1	
7	0.925	0.552	393													
8	0.971	0.547	391													
9	0.910	0.942	862				7.0	8.6			30	4.0				<1.8
10	0.879	1.319	1740				7.0	8.4			32	1.2				
11	0.901	1.267	908				7.0	8.1			30	2.3				
12	0.893	1.234	883				6.9	8.9			28	2.2				
13	0.848	0.809	883		240	220	7	8.3	31	42	30	2			<0.1	
14	0.895	0.407	288													
15	0.935	0.414	295													
16	0.952	0.915	862				7.0	7.8			28	3.5				<1.8
17	0.891	1.218	854				7.1	8.6			32	2.5				
18	0.995	1.120	855				6.9	8.8			26	3.3				
19	1.346	1.016	1059	948			7	11.2			28	4.4	0.00			
20	1.406	1.780	1461	7610	150	140	7.1	10.2	25	50	32	1.2	0.00		<0.1	
21	1.446	2.237	1832	19200			7.1	9.7				0.1	0.00			
22	1.319	2.589	1837	6650			7.1	9.7				0.4	0.00			
23	1.185	2.491	1748	6420			7.2	10.0			28	1.4	0.00			<1.8
24	1.112	2.301	1713	3440			7.1	10.1			32	0.2	0.00			
25	1.288	1.909	1574	4220			7.1	10.9			30	1.3	0.00			
26	1.318	1.818	1289	8050			6.9	11.9			28	1.3	0.00			
27	1.210	2.115	1675	5450	180	150	6.9	10.4	60	69	32	0.1	0.00		<0.1	
28	1.231	2.198	1654	2970			7.0	11.1				2.3	0.00			
29	1.248	2.026	1537	2120			7.0	10.6				0.8	0.00			
30	1.137	2.012	1407	1780			7.0	11.2			28	1.1	0.00			<1.8
31	1.095	1.532	1413	1540			7.1	11.1			28	2.3	0.00			

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
1/12/2012	270	25.0	ND	240

Semi-Annual Tests	Value in ug/l
Bis phthalate	DNQ
alph-BHC	ND
4,4' -DDT	ND
carbon tetrachloride	DNQ

Quarterly Tests	Value in ug/l
Dichlorobromomethane	ND
Bromoform	ND
Chlorodibromomethane	ND
Chloroform	1.5

SPILLS:

None to report

30 DAY AVERAGE	BOD	BOD	BOD	NFR	NFR	NFR
	mg/L	LBS/DAY	% Removal	mg/L	LBS/DAY	% Removal
	33	441	83	49	629	71

ACUTE TOXICITY

DATE	% Survival
1/10/2012	100%
1/23/2012	95%
Median	98%

Rainbow Trout
C. dubia

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	2
C. Dubia	1
Algae	1.333
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

SIGNATURE: _____

REMARKS:

Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: FEBRUARY

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING			RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.				
1	1.196	1.415	598	1560			7.2	12.1			28	2.6	0.00			
2	1.144	1.220	572	1470			7.2	11.4			28	0.2	0.00			
3	1.098	1.090	549	1240	290	290	7.3	10.4	25	35	34	6.3	0.00	<0.1		
4	1.152	1.251	576	1120			7.3	10.8				1.2	0.00			
5	1.196	1.313	598	1020			7.4	11.5				0.5	0.00			
6	1.102	1.255	551	940			6.9	12			30	6.7	0.00			<1.8
7	1.092	1.255	546	876			6.9	12.2				1.5	0.00			
8	1.106	1.232	553	905			7.4	11.5			28	2.7	0.00			
9	1.094	1.062	547	837			7.1	12.0			24	2.0	0.00			
10	1.016	1.041	784	800	270	250	7.3	12.1	48	47	28	0.1	0.00	<0.1		
11	1.078	1.105	814	876			7.1	11.9				0.1	0.00			
12	1.137	1.089	770	876			7	11.9				0.2	0.00			
13	1.178	1.061	747	3060			7.1	11.4			28	2.7	0.00			<1.8
14	1.091	1.127	853	2050			6.8	10.8			32	1.0	0.00			
15	1.091	1.223	860	1530			7.2	9.8			24	1.0	0.00			
16	1.064	1.220	855	1400			6.7	9.4			28	1.8	0.00			
17	1.018	1.190	850	1260	280	300	7.1	10.9	47	44	28	1.4	0.00	<0.1		
18	1.069	1.018	734	1300			6.8	10.4				2.9	0.00			
19	1.061	0.970	685	1160			6.8	9.8				3.2	0.00			
20	1.055	0.961	680	1060			7.1	10.8				1.8	0.00			
21	0.994	0.952	679	1040			7.4	11.5			26	1.1	0.00			
22	0.993	0.935	687	1010			7.0	12.2			30	1.6	0.00			<1.8
23	0.953	0.683	636	965			7.1	11.6			20	2.1	0.00			
24	0.961	0.865	612	885	260	220	7.0	11.8	28	31	26	2.8	0.00	<0.1		
25	0.998	0.886	625	923			6.8	10.5			36	3.0	0.00			
26	1.068	0.878	618	931			6.8	9.5			36	2.7	0.00			
27	1.008	0.873	615	856			7	9.5			34	3.4	0.00			<1.8
28	1.011	0.903	706	791			6.8	10.2			32	1.9	0.00			
29	1.055	0.938	715	1700			6.8	9.6			32	5.2	0.00			

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
2/14/2012	260	18.0	ND	200

Semi-Annual Tests	Value in ug/l
Bis phthalate	DNQ
alph-BHC	ND
4,4' -DDT	ND
carbon tetrachloride	DNQ

Quarterly Tests	Value in ug/l
Dichlorobromomethane	N/A
Bromoform	N/A
Chlorodibromomethane	N/A
Chloroform	N/A

SPILLS:

None to report

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	37	328	87	39	347	85

ACUTE TOXICITY

DATE	% Survival
Rainbow Trout 2/7/2012	100%
C. dubia 2/7/2012	80%
Median	90%

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	1
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

SIGNATURE: _____

REMARKS:

 Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: MARCH

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D.	NFR	EFFLUENT MONITORING			RIVER	SETTLEABLE	3X5
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP	mg/L	mg/L	AMMONIA	CL ₂ RES.	CL ₂ RES.	CL ₂ RES	SOLIDS	TOTAL COLIFORM
1	1.086	0.914	676	2590			6.7	9.8			26	3.9	0.00			
2	1.033	0.932	738	2300	230	190	7.4	9.2	17	30	28	1.7	0.00		<0.1	
3	1.052	1.060	742	1670			7.3	9.6				0.2	0.00			
4	1.106	1.056	741	1700			7.3	9.8				0.1	0.00			
5	1.028	1.068	822	1810			6.8	10.9			34	0.3	0.00			<1.8
6	1.022	1.079	810	1750			6.7	10			30	2.1	0.00			
7	1.006	1.073	755	1510			6.7	9.9			32	2.5	0.00			
8	0.981	0.954	776	1200			6.7	10.6			30	2.8	0.00			
9	0.965	0.825	579	1090	230	190	6.7	10.3	18	30	34	1.5	0.00		<0.1	
10	0.997	0.827	581	1050			7.4	11.3				1.0	0.00			
11	1.074	0.826	582	1060			7.6	11.8				3.0	0.00			
12	0.946	0.899	815	1250			6.8	10.8			32	1.3	0.00			<1.8
13	1.136	1.141	808	3040			6.7	10.1			32	0.7	0.00			
14	1.073	1.146	803	3520			6.8	10.6			34	0.3	0.00			
15	1.142	1.141	800	2720			6.8	11.8			32	0.1	0.00			
16	1.396	1.088	784	10100	210	160	6.7	12.1	17	23	34	4.0	0.00		<0.1	
17	1.356	1.085	766	11800			6.9	10.6				2.8	0.00			
18	1.314	1.109	782	7520			6.8	12.3				2.3	0.00			
19	1.206	1.129	789	5330			6.7	10.6			30	1.6	0.00			<1.8
20	1.170	1.128	791	3720			6.8	10.7			34	2.1	0.00			
21	1.266	1.384	1131	5690			6.8	12.5			30	1.8	0.00			
22	1.351	1.501	1140	6210			6.9	12.0			30	0.1	0.00			
23	1.242	1.420	995	4640	180	180	6.8	10.9	20	31	24	0.1	0.00		<0.1	
24	1.274	1.418	995	3670			6.7	11.5				0.2	0.00			
25	1.291	1.415	992	3560			6.8	11.5				0.3	0.00			
26	1.214	1.432	1017	3070			6.7	11.5			32	0.4	0.00			<1.8
27	1.261	1.605	1253	2930			6.8	11.2			32	3	0.00			
28	1.292	1.756	1228	11500			6.8	11.2			30	0.3	0.00			
29	1.468	1.755	1234	7830			6.9	12.4			32	0.5	0.00			
30	2.021	1.853	1413	13500	200	210	6.7	12.4	20	24	20	8.9	0.00		<0.1	
31	1.975	2.034	1424	14700			6.8	12.3				3.8	0.00			

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
3/14/2012	240	23.0	ND	220

Semi-Annual Tests	Value in ug/l
Bis phthalate	-
alph-BHC	-
4,4' -DDT	-
carbon tetrachloride	-

Quarterly Tests	Value in ug/l
Dichlorobromomethane	-
Bromoform	-
Chlorodibromomethane	-
Chloroform	-

SIGNATURE: _____

REMARKS:

SPILLS:

None to report

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	18	191	91	28	277	85

ACUTE TOXICITY

DATE	% Survival
3/13/2012	100%
3/13/2012	100%
-	-

Rainbow Trout
C. dubia

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	-
C. Dubia	-
Algae	-
TUc	

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: APRIL

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING			RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.				
1	1.768	2.039	1424	14700			6.9	11.6				0.7	0.00			
2	1.668	2.032	1427	9920			6.9	11.5			26	1.5	0.00			<1.8
3	1.583	2.022	1412	7220			6.8	12.7			28	0.5	0.00			
4	1.624	2.021	1418	6950			6.8	11.4			26	1.7	0.00			
5	1.496	1.772	1417	6120			7	11.4			28	1.7	0.00			
6	1.410	1.642	1462	4830	180	140	7	11	27	31	24	3.3	0.00	<0.1		
7	1.390	1.978	1449	3970			6.7	12.5				1.0	0.00			
8	1.359	1.999	1436	3510			7.2	13.4				0.2	0.00			
9	1.332	1.954	1379	3120			6.7	12.5			32	2.1	0.00			<1.8
10	1.299	1.887	1329	2910			6.7	12.9			32	1.8	0.00			
11	1.349	1.864	1310	3100			6.7	12.9			28	5.8	0.00			
12	1.497	1.290	1310	3560			6.8	12.6			32	4.8	0.00			
13	1.491	0.997	759	6900	180	180	6.9	10.4	17	19	28	4.7	0.00	<0.1		
14	1.407	1.156	856	5810			6.9	12.0				0.1	0.00			
15	1.397	1.267	917	4660			6.8	12.6				0.1	0.00			
16	1.343	1.303	922	4040			6.9	13.7			30	0.4	0.00			2
17	1.311	1.348	1003	3630			6.8	13.7			32	2.0	0.00			
18	1.335	1.445	1016	3320			6.7	14.0			28	1.2	0.00			
19	1.367	1.443	1014	4240			6.8	14.5			28	1.4	0.00			
20	1.308	1.441	1011	4010	160	110	6.7	14.3	20	14	30	1.3	0.00	<0.1		
21	1.311	1.447	1017	3440			7.1	14.6				1.0	0.00			
22	1.335	1.398	1005	3100			7.0	14.8				1.8	0.00			
23	1.266	1.202	898	2820			6.8	14.8			28	4.1	0.00			<1.8
24	1.194	1.086	798	2490			6.7	15.6			30	4.1	0.00			
25	1.187	1.115	793	2180			6.8	15.8			28	2.3	0.00			
26	1.280	1.119	791	2110			6.8	15.3			32	4.2	0.00			
27	1.230	1.313	1006	2070	280	330	6.7	14.8	20	17	30	2.3	0.00	<0.1		
28	1.211	1.430	1007	1710			6.8	14.9				0.4	0.00			
29	1.253	1.413	994	1540			6.8	15.6				0.3	0.00			
30	1.191	1.421	1044	1390			6.7	15.8			30	1.5	0.00			<1.8

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
4/11/2012	230	15.0	ND	140

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4' -DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	DNQ
Bromoform	ND
Chlorodibromomethane	DNQ
Chloroform	0.8

SPILLS:						
None to report						
30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	21	243	89	20	234	87

ACUTE TOXICITY	
DATE	% Survival
4/10/2012	100%
4/10/2012	100%
Median	100%

Rainbow Trout
C. dubia

CHRONIC TOXICITY	
TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
2

SIGNATURE: _____

REMARKS:

 Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: MAY

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING			RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.				
1	1.154	1.428	1004	1300			6.8	15.6			30	2.8	0.00			
2	1.153	1.435	1018	1310			6.7	15.0			28	2.0	0.00			
3	1.166	1.243	1007	1100			6.6	15.2			28	2.0	0.00			
4	1.137	1.266	1062	1310	240	250	6.5	14.7	14	12	30	1.6	0.00	<0.1		
5	1.157	1.506	1066	1200			6.7	14.7				2.8	0.00			
6	1.186	1.499	1067	1080			6.9	15.3				2.2	0.00			
7	1.146	1.485	1060	986			6.7	15.5			28	3.0	0.00			<1.8
8	1.122	1.475	1072	802			6.9	16.4			26	4.1	0.00			
9	1.093	1.455	1027	631			6.8	16.3			28	3.7	0.00			
10	1.090	0.828	1028	579			7.2	15.8			22	5.2	0.00			
11	1.061	0.709	559	544	200	150	6.7	14.3	20	16	24	2.7	0.00	<0.1		
12	1.084	0.833	595	520			6.8	14.9				3.5	0.00			
13	1.110	0.806	568	670			6.9	15.2				2.9	0.00			
14	1.068	0.456	577	610			6.7	15.9			28	2.6	0.00			<1.8
15	1.038	0.000	0													
16	1.037	0.444	1110				7.0	14.9			28	0.4				
17	1.026	0.837	752				6.8	15.4			28	0.6				
18	0.989	0.730	693		260	410	6.7	14.9	13	16	28	2.6		<0.1		
19	0.999	0.790	560													
20	1.041	0.773	547													
21	1.021	0.603	700				6.8	15.8			26	1.2				4.0
22	0.995	0.744	748				6.8	15.8			24	2.2				
23	0.994	0.892	863				6.9	16.5			24	2.1				
24	1.004	0.985	799				6.6	15.4			26	1.9				
25	0.971	0.732	806		210	190	6.7	15.2	15	18	20	2.5		<0.1		
26	0.954	0.640	456													
27	0.953	0.627	451													
28	1.040	0.621	446													
29	1.001	0.746	853				6.8	15.8			24	4.9				<1.8
30	0.959	0.975	868				6.8	15.8			22	3.8				
31	0.958	1.016	992				6.9	16.3			24	4.1				

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
5/3/2012	210	20.0	ND	160

Semi-Annual Tests	Value in ug/l
Bis phthalate	
alph-BHC	
4,4' -DDT	
carbon tetrachloride	

Quarterly Tests	Value in ug/l
Dichlorobromomethane	
Bromoform	
Chlorodibromomethane	
Chloroform	

SPILLS:

None to report

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	16	109	93	16	107	93

ACUTE TOXICITY

DATE	% Survival
5/8/2012	95%
5/8/2012	100%

Rainbow Trout
C. dubia

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	
C. Dubia	
Algae	
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
4

SIGNATURE: _____

REMARKS:

 Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: JUNE

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING		RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.			
1	0.947	0.868	1162		230	180	6.5	16.6	20	24	24	4.9		<0.1	
2	0.962	0.734	519												
3	1.038	0.719	516												
4	1.030	0.579	775				6.9	16.8			24	2.3			<1.8
5	1.017	0.638	776				6.9	16.3			18	4.3			
6	0.983	0.910	796				6.8	16.1			22	3.7			
7	0.993	0.945	811				6.9	15.9			28	3.8			
8	0.964	0.833	814		310	290	7.1	16.2	20	19	28	2.6		<0.1	
9	0.956	0.559	396												
10	0.965	0.551	390												
11	0.958	0.670	788				6.9	16.2			22	1.6			<1.8
12	0.966	0.866	764				6.9	16.5			20	2.3			
13	0.954	0.884	819				6.9	16.8			20	2.2			
14	0.953	0.970	842				7.0	17.0			24	1.4			
15	0.945	0.874	846		370	550	7.0	17.2	21	24	24	1.8		<0.1	
16	0.953	0.559	397												
17	0.975	0.548	392												
18	0.954	0.733	850				6.9	16.9			28	0.9			<1.8
19	0.915	0.921	856				6.8	17.2			22	1.6			
20	0.914	0.792	686				6.8	16.9			22	3.8			
21	0.899	0.836	1146				6.9	17.2			30	3.7			
22	0.929	0.697	1089		330	350	7.0	17.0	18	18	28	5.3		<0.1	
23	0.951	0.502	357												
24	0.941	0.495	350												
25	0.929	0.535	710				6.9	16.8			28	3.6			<1.8
26	0.904	0.711	821				7	17.3			20	0.6			
27	0.899	0.963	830				6.7	16.6			28	5.3			
28	0.895	0.875	997				6.8	17.1			30	4.2			
29	0.887	0.807	742		320	510	6.7	17.8	32	18	20	5.7		<0.1	
30	0.901	0.872	610												

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
6/11/2012	220	19.0	ND	140

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4' -DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	N/A
Bromoform	N/A
Chlorodibromomethane	N/A
Chloroform	N/A

SPILLS:						
None to report						
	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
30 DAY AVERAGE	22	151	93	21	141	93

ACUTE TOXICITY	
DATE	% Survival
Rainbow Trout N/A	
C. dubia N/A	
N/A	

CHRONIC TOXICITY	
TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

SIGNATURE: _____

REMARKS:

 Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: JULY

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D.	NFR	EFFLUENT MONITORING		RIVER	SETTLABLE	3X5
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP	mg/L	mg/L	AMMONIA	CL ₂ RES.	CL ₂ RES	SOLIDS	TOTAL COLIFORM
1	0.928	0.856	602												
2	0.901	1.007	1290				6.7	18.4			30	2.6			<1.8
3	0.878	1.233	1293				6.7	17.4			28	0.4			
4	0.878	0.817	579												
5	0.882	1.011	1104				6.8	17.8			32	6.7			
6	0.897	0.936	1100		320	280	6.8	18	21	17	24	4.4		<0.1	
7	0.879	0.727	537												
8	0.879	0.724	507												
9	0.901	0.966	1142				6.8	18.6			28	6.4			<1.8
10	0.878	1.211	1110				6.8	17.8			30	3.6			
11	0.877	1.197	1209				6.9	17.6			30	2.8			
12	0.865	1.148	988				6.9	17.6			28	3.7			
13	0.856	1.087	1162		290	300	6.9	17.5	20	18	20	4.1		<0.1	
14	0.854	0.738	516												
15	0.893	0.738	512												
16	0.885	0.490	1140				7.0	17.6			28	6.0			<1.8
17	0.877	0.000	0		No Discharge for CCB Cleaning										
18	0.879	0.707	1716				6.8	17.6			30	8.6			
19	0.865	1.196	1149				6.9	17.5			30	4			
20	0.845	1.126	1139		160	330	7	18	22	13	30	4.5		<0.1	
21	0.834	0.840	594												
22	0.903	0.811	577												
23	0.889	0.990	1147				6.8	17.9			28	5.7			<1.8
24	0.865	1.253	1195				6.7	17.8			36	3.0			
25	0.879	1.226	1200				6.9	17.8			28	4.9			
26	0.876	1.195	1138				6.9	17.8			32	2.8			
27	0.855	1.109	1137		320	530	6.8	17.6	19	15	30	2.7		<0.1	
28	0.864	0.768	539												
29	0.941	0.776	544												
30	0.898	1.002	1142				6.8	17.8			28	3.0			<1.8
31	0.878	1.299	1191				6.9	17.9			36	1.0			

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
7/16/2012	280	22.0	ND	210

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4' -DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	DNQ
Bromoform	ND
Chlorodibromomethane	DNQ
Chloroform	2.8

SPILLS:

None to report

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	20	188	91	15	141	96

ACUTE TOXICITY

DATE	% Survival
N/A	N/A
N/A	N/A
N/A	N/A

Rainbow Trout
C. dubia

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

SIGNATURE: _____

 Indicates Permit Exceedance

REMARKS: 7/17/2012 No Discharge for CCB Cleaning

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: AUGUST

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING		RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.			
1	0.870	1.312	1232				6.8	17.9			28	2.7			
2	0.861	1.315	1237				7.0	17.9			32	3.1			
3	0.857	1.155	1227		270	200	7.0	17.8	24	18	32	3.7		<0.1	
4	0.867	0.753	527												
5	0.894	0.750	526												
6	0.885	0.973	1158				7	18.5			26	4.2			<1.8
7	0.875	1.270	1159				7.0	18.1			30	3.3			
8	0.901	1.181	953				6.8	17.7			32	3.7			
9	0.870	1.161	1073				6.9	18.1			32	3.6			
10	0.858	1.031	960		270	280	7.0	18.1	30	17	20	3.7		<0.1	
11	0.861	0.757	532												
12	0.902	0.766	541												
13	0.896	0.907	996				7	17.3			26	3.4			<1.8
14	0.893	1.266	1144				6.7	17.6			30	2.9			
15	0.906	1.291	1144				6.8	17.9			30	3.3			
16	0.885	1.263	1106				6.8	17.8			30	3.2			
17	0.875	1.101	1067		230	250	7.0	17.8	28	14	28	4.0		<0.1	
18	0.879	0.751	526												
19	0.914	0.751	526												
20	0.889	0.949	1092				6.9	17.3			26	4.4			<1.8
21	0.877	1.255	1092				6.9	17.6			36	3.2			
22	0.878	1.230	1049				7.0	18.0			36	3.0			
23	0.866	1.247	1049				7.1	17.6			36	3.0			
24	0.862	1.070	1050		270	310	7.0	17.7	26	17	28	2.9		<0.1	
25	0.871	0.663	464												
26	0.912	0.665	465												
27	0.894	0.899	1137				6.9	18			30	1.8			22
28	0.855	1.281	1226				6.9	17.7			32	1.0			
29	0.867	1.023	1113				6.8	17.3			32	3.4			
30	0.868	0.885	827				6.9	17.6			32	3.0			
31	0.842	0.864	960		300	310	6.9	17.6	28	12	28	3.0		<0.1	

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
8/16/2012	290	26.0	ND	410

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4' -DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	N/A
Bromoform	N/A
Chlorodibromomethane	N/A
Chloroform	N/A

SIGNATURE: _____

REMARKS:

SPILLS:

None to report

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	26	232	90	17	150	93

ACUTE TOXICITY

DATE	% Survival
Rainbow Trout	N/A
C. dubia	N/A
	N/A
	N/A

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
22

Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: SEPTEMBER

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D.	NFR	EFFLUENT MONITORING		RIVER	SETTLEABLE	3X5
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP	mg/L	mg/L	AMMONIA	CL ₂ RES.	CL ₂ RES	SOLIDS	TOTAL COLIFORM
1	0.835	0.669	470												
2	0.832	0.668	468												
3	0.953	0.667	478												
4	0.869	0.740	842				6.9	17.1			26	2.4			<1.8
5	0.861	0.917	970				6.7	16.6			28	3.2			
6	0.860	0.925	977				6.8	16.5			30	3.7			
7	0.829	0.896	924		300	330	6.8	16.4	25	14	30	3.2		<0.1	
8	0.866	0.713	505												
9	0.934	0.711	503												
10	0.873	0.847	1000				6.9	16.4			34	3.7			<1.8
11	0.870	1.037	984				6.8	16.2			24	2.7			
12	0.843	0.951	1009				6.9	16.3			26	3.1			
13	0.854	0.897	1004				7.0	16.2			28	3.1			
14	0.841	0.815	830		270	240	6.9	16.4	27	15	36	3.0		<0.1	
15	0.860	0.716	504												
16	0.936	0.720	509												
17	0.870	0.760	796				7.0	17.0			28	2.6			<1.8
18	0.847	0.884	799				7.0	16.0			28	1.8			
19	0.862	1.006	1149				6.8	15.5			28	1.8			
20	0.858	1.170	1177				7.1	15.8			30	0.1			
21	0.832	1.021	980		340	320	7.0	15.6	40	19	28	1.5		<0.1	
22	0.852	0.799	560												
23	0.908	0.797	562												
24	0.845	1.024	1203				6.7	15.4			28	3.1			<1.8
25	0.832	1.318	1221				6.8	15.2			34	0.7			
26	0.848	1.224	1231				6.8	15.2			34	2.1			
27	0.830	1.255	1322				6.8	15.2			32	2.3			
28	0.811	1.071	1131		270	260	6.8	15.0	26	26	34	2.2		<0.1	
29	0.850	0.714	504												
30	0.906	0.713	503												

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
9/13/2012	290	20.0	ND	250

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4' -DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	N/A
Bromoform	N/A
Chlorodibromomethane	N/A
Chloroform	N/A

SIGNATURE: _____

REMARKS:

SPILLS:

None to report

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	30	230	90	19	147	93

ACUTE TOXICITY

DATE	% Survival
Rainbow Trout	N/A
C. dubia	N/A
	N/A

CHRONIC TOXICITY

TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

 Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: OCTOBER

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING		RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.			
1	0.833	1.009	1195				6.9	15.1			30	5.7			<1.8
2	0.819	1.314	1230				6.9	15.4			32	2.9			
3	0.817	1.138	1131				6.8	15			32	4.1			
4	0.811	1.090	1122				6.9	15.1			34	4.0			
5	0.788	0.895	1110		320	270	6.9	15.5	32	21	34	3.2		<0.1	
6	0.835	0.538	379												
7	0.902	0.548	386												
8	0.848	0.553	387												
9	0.815	0.644	1005				6.9	15.1			34	4.0			<1.8
10	0.838	0.798	755				7.0	15.2			28	5.1			
11	0.821	0.838	758				7.0	14.8			36	4.2			
12	0.796	0.846	667		400	400	7.1	15.1	33	14	32	4.8		<0.1	
13	0.850	0.797	559												
14	0.889	0.794	556												
15	0.844	0.888	1025				6.8	16.1			34	4.8			<1.8
16	0.884	1.165	1172				6.8	16.3			34	1.4			
17	0.845	1.125	1420				6.9	15.2			32	1.1			
18	0.816	1.078	1066				6.8	14.9			36	3.0			
19	0.796	0.993	1020		280	200	6.8	14.8	28	22	34	4.3		<0.1	
20	0.860	0.745	526												
21	0.903	0.753	537												
22	0.922	0.706	851				7.0	14.3			34	4.5			<1.8
23	0.865	1.132	1310				7.0	13.5			32	4.5			
24	0.863	1.561	1350				7.0	13.1			36	4.2			
25	0.836	1.532	1300				7.0	13.2			36	3.0			
26	0.824	1.305	1305		310	250	7.1	13.3	34	32	34	3.1		<0.1	
27	0.864	0.754	530												
28	0.907	0.751	527												
29	0.847	1.035	1286				7.0	14.9			34	2.9			<1.8
30	0.815	1.539	1323				7.0	15.0			34	2.7			
31	0.818	1.528	1321				6.9	15.1			36	2.7			

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
10/10/2012	280	21.0	ND	240

Semi-Annual Tests	Value in ug/l
Bis phthalate	ND
alph-BHC	ND
4,4' -DDT	ND
carbon tetrachloride	ND

Quarterly Tests	Value in ug/l
Dichlorobromomethane	DNQ
Bromoform	ND
Chlorodibromomethane	ND
Chloroform	1.3

SPILLS:						
None to report						
BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal	
32	273	90	22	200	91	30 DAY AVERAGE

ACUTE TOXICITY	
DATE	% Survival
Rainbow Trout	N/A
C. dubia	N/A
	N/A

CHRONIC TOXICITY	
TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

SIGNATURE: _____

REMARKS:

 Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: NOVEMBER

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING		RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.			
1	0.844	1.515	1282				6.8	15			36	2.5			
2	0.822	1.284	1311		430	400	7.0	14.9	33	35	30	2.7		<0.1	
3	0.886	0.746	523												
4	0.933	0.748	525												
5	0.860	1.300	1269				6.8	15.2			28	2.9			23
6	0.835	1.721	1275				7	15.5			32	2.8			
7	0.833	1.648	1157				6.9	15.3			32	2.6			
8	0.876	1.433	1157				7.2	14.3			30	2.7			
9	0.892	0.840	1050		310	290	7.1	13.5	31	35	34	3.3		<0.1	
10	0.881	0.299	227												
11	0.886	0.310	231												
12	0.925	0.300	214												
13	0.845	1.095	1224				6.9	14.2			28	3.3			<1.8
14	0.846	1.728	1227				6.8	13.3			28	3.1			
15	0.837	1.715	1327				6.9	12.8			32	3.3			
16	0.840	1.276	1198		250	480	7.1	12.9	44	36	32	2.7		<0.1	
17	0.942	0.853	605												
18	0.927	0.862	606												
19	0.883	1.389	1254				7.1	13.6			28	2.8			<1.8
20	0.979	1.592	1365	423			7.1	14.2			30	2.6	0.00		
21	0.968	1.386	985	2450	250	190	7.0	13.4	44	32	36	3.2	0.00	<0.1	
22	0.948	1.895	1535	1660			7.0	12.4				1.0	0.00		
23	0.865	2.202	1550	821			7.2	12.3				2.4	0.00		
24	0.884	2.197	1550	474			7.3	12.3				2.3	0.00		
25	0.953	1.595	1518	302			7.3	13.0				2.7	0.00		
26	0.887	1.200	1280	239			7.1	13.3			32	1.7			>1600
27	0.866	1.690	1282	198			6.9	13.1			32	4.6			
28	0.893	1.391	972	190			7.1	12.9			36	5.6			
29	1.082	1.296	967	922			7.2	13.8			30	2.9	0.00		
30	1.030	1.269	1181	9420	200	190	7.2	14.0	44	30	28	2.7	0.00	<0.1	<1.8

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
11/7/2012	300	24.0	ND	250

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4' -DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	N/A
Bromoform	N/A
Chlorodibromomethane	N/A
Chloroform	N/A

SPILLS:						
None to report						
BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal	
39	411	85	34	345	88	30 DAY AVERAGE

ACUTE TOXICITY	
DATE	% Survival
11/21/2012	100%
11/21/2012	10%

Rainbow Trout
C. dubia

CHRONIC TOXICITY	
TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
>1600

SIGNATURE: _____

REMARKS:

Indicates Permit Exceedance

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
MONITORING DATA

MONTH: DECEMBER

YEAR: 2012

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING		(C°)		B.O.D. mg/L	NFR mg/L	EFFLUENT MONITORING			RIVER CL ₂ RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
					B.O.D. mg/L	N.F.R. mg/L	pH	TEMP			AMMONIA	CL ₂ RES.				
1	1.189	1.737	1389	5080			7.3	14.4				2.4	0.00			
2	1.508	1.884	1384	92100			7.0	13.6				2.4	0.00			
3	1.153	1.712	1357	9200			7.3	13.6			30	2.2	0.00			<1.8
4	1.125	1.660	1444	5330			7.4	13.6			24	2.5	0.00			
5	1.180	2.046	1431	10500			7.0	13.8			22	0.3	0.00			
6	1.094	1.739	1426	7400			7.2	12.9			28	1.8	0.00			
7	1.056	1.421	1042	4510	240	250	6.9	11.2	52	36	32	3.0	0.00	<0.1		
8	1.052	1.803	1414	3280			7.2	10.8				2.2	0.00			
9	1.094	1.980	1402	2450			7.2	11.2				2.2	0.00			
10	1.034	1.571	1352	1940			7.2	11.6			28	2.1	0.00			<1.8
11	1.022	1.128	973	1620			7.2	11.4			26	1.8	0.00			
12	1.028	1.111	786	1950			7.3	10.7			20	1.6	0.00			
13	1.002	1.126	799	1620			6.9	10.5			36	1.8	0.00			
14	0.966	0.893	800	1370	260	180	7.5	9.6	41	35	24	2.5	0.00	<0.1		
15	1.019	0.761	761	1190			7.9	9.8				2.1	0.00			
16	1.075	1.084	765	1180			7.3	10.7				1.8	0.00			
17	1.080	1.064	749	4610			7.1	10.7			28	2.2	0.00			<1.8
18	1.056	1.076	766	4450			7.2	9.4			28	2.2	0.00			
19	1.030	1.089	763	3270			7.3	10.3			30	2.3	0.00			
20	1.196	1.077	759	2500			7.2	10.1			32	2.4	0.00			
21	1.366	1.054	739	6450	280	250	7.3	9.8	45	30	26	2.6	0.00	<0.1		
22	1.508	1.393	1227	11900			7.1	9.5				2.4	0.00			
23	1.385	1.773	1245	8500			7.3	9.2				2.3	0.00			
24	1.295	1.795	1262	7220			7.2	9.1				2.1	0.00			
25	1.266	1.798	1256	5190			7.2	9.3				2.3	0.00			
26	1.433	0.839	1294	6790			7.2	10.9			22	2.3	0.00			<1.8
27	1.341	0.779	1421	5570			7.2	8.6			26	2.4	0.00			
28	1.261	0.976	700	4100	270	480	7.2	9.7	42	28	28	1.9	0.00	<0.1		
29	1.234	1.547	1327	3220			7.2	9.8				1.7	0.00			
30	1.228	1.904	1338	2600			7.2	9.9				2.0	0.00			
31	1.173	1.905	1337	2170			7.0	8.3			24	2.0	0.00			

DATE	MONTHLY TESTS			
	TDS	AMMONIA	NITRATE	BORON
12/20/2012	240	31.0	ND	210

Semi-Annual Tests	Value in ug/l
Bis phthalate	DNQ
alph-BHC	ND
4,4' -DDT	ND
carbon tetrachloride	ND

Quarterly Tests	Value in ug/l
Dichlorobromomethane	ND
Bromoform	ND
Chlorodibromomethane	ND
Chloroform	ND

SPILLS:						
None to report						
30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	45	413	83	32	296	87

ACUTE TOXICITY	
DATE	% Survival
12/11/2012	100%
Median	85%

Rainbow Trout
C. dubia

CHRONIC TOXICITY	
TESTED	SURVIVAL
Minnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform
Monthly
MEDIAN
<1.8
Daily
Maximum
<1.8

SIGNATURE: _____

REMARKS:

 Indicates Permit Exceedance

McKinleyville Community Services District

Wastewater Management Facility

Influent & Effluent Testing

pH, Temperature, Ammonia, CL₂ Res,

Settleable Solids, BOD, NFR =

pH, mg/L, ° C

AVERAGE ANNUAL 2012

Date	INFLUENT			AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	BOD	NFR		EFFLUENT				AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	NTU	CL2 Res	River CL2 Res	Coliform 3x5	BOD	NFR	
	pH	Temp	S.S						pH	Temp	D.O.	S.S.									
JANUARY	7.9	14.5		19.5	38.2	1.404	208	183		7.0	9.9	3.5	<0.1	29.6	0.075	88.4	1.7	0.0	<1.8	33	49
FEBRUARY	7.9	14.7		18.5	37.0	1.559	275	265		7.0	11.0	4.1	<0.1	29.1	0.097	105.1	2.2	0.0	<1.8	37	39
MARCH	7.8	14.3		18.4	34.9	1.138	210	186		6.9	11.0	3.5	<0.1	30.5	0.055	65.5	1.7	0.0	<1.8	18	28
APRIL	7.5	14.6		16.8	33.4	0.475	200	190		6.8	13.5	4.3	<0.1	29.0	0.060	46.4	1.9	0.0	<1.8	21	20
MAY	7.8	16.1		22.3	41.2	1.324	228	250		6.8	15.5	4.3	<0.1	26.0	0.063	75.4	2.7	0.0	<1.8	16	16
JUNE	7.8	17.5		17.8	37.8	1.123	312	376		6.9	16.8	4.3	<0.1	24.3	0.077	132.3	3.1	0.0	<1.8	22	21
JULY	7.6	18.3		23.0	39.6	0.884	273	360		6.8	17.8	3.5	<0.1	29.3	0.092	122.1	4.0	0.0	<1.8	21	16
AUGUST	7.7	18.9		16.0	40.4	1.234	268	270		6.9	17.8	3.3	<0.1	30.1	0.111	151.3	3.2	0.0	<1.8	27	16
SEPTEMBER	7.9	18.8		20.5	43.6	1.773	295	288		6.9	16.0	3.9	<0.1	29.8	0.088	126.6	2.4	0.0	<1.8	30	19
OCTOBER	7.8	18.3		23.3	43.5	1.595	328	280		6.9	14.8	4.2	<0.1	33.5	0.100	146.9	3.6	0.0	<1.8	32	22
NOVEMBER	7.8	17.3		25.0	43.6	1.487	288	310		7.0	13.7	3.8	<0.1	31.3	0.112	143.5	2.9	0.0	<1.8	39	34
DECEMBER	7.7	15.3		21.3	37.2	0.849	263	290		7.2	10.8	4.1	<0.1	27.1	0.120	112.1	2.1	0.0	<1.8	45	32
Average	7.8	16.6	20.2	39.2	1.237	262	271		6.9	14.0	3.9	<0.1	29.1	0.087	109.6	2.6	0.0	<1.8	28	26	
Maximum	7.9	18.9	25.0	43.6	1.773	328	376		7.2	17.8	4.3	<0.1	33.5	0.120	151.3	4.0	0.0	<1.8	45	49	
Minimum	7.5	14.3	16.0	33.4	0.475	200	182.5		6.8	9.9	3.3	<0.1	24.3	0.055	46.4	1.7	0.0	<1.8	16	16	

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

JANUARY 2012

INFLUENT								EFFLUENT								River				Coliform		BOD		NFR	
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	NTU	CL ₂ Res	CL ₂ Res	3x5	BOD	NFR						
1																									
2																									
3	8.2	16.6		40.0	2.752			7.0	10.4	3.2		28.0	0.065	89.9	2.1		<1.8								
4	7.8	15.6		38.0	0.456			7.0	9.7	3.4		28.0	0.061	87.6	1.7										
5	8.1	15.7		42.0	1.977			7.1	10.8	3.2		32.0	0.109	80.1	0.2										
6	8.1	15.2	22	44.0	1.998	260.0	220.0	7.0	10.2	4.9	<0.1	32.0	0.072	85.0	1.0							16		35	
7																									
8																									
9	7.8	13.9		44.0	0.947			7.0	8.6	4.4		30.0	0.060	82.7	4.0		<1.8								
10	8.2	14.6		42.0	2.348			7.0	8.4	4.3		32.0	0.063	82.5	1.2										
11	7.6	12.8		34.0	0.422			7.0	8.1	4.0		30.0	0.058	89.6	2.3										
12	8.4	15.3		44.0	3.727			6.9	8.9	3.8		28.0	0.050	95.2	2.2										
13	7.9	14.6	21	34.0	0.913	240.0	220.0	7.0	8.3	4.0	<0.1	30.0	0.058	98.7	2.0							31		42	
14																									
15																									
16	7.8	13.2		38.0	0.776			7.0	7.8	4.3		28.0	0.052	96.9	3.5		<1.8								
17	7.5	14.0		32.0	0.306			7.1	8.6	3.7		32.0	0.092	96.9	2.5										
18	7.9	15.0		32.0	0.885			6.9	8.8	3.3		26.0	0.046	102.0	3.3										
19	8.0	14.9		36.0	1.145			7.0	11.2	4.5		28.0	0.069	101.0	4.4	0.00									
20	7.8	15.0	15	36.0	0.836	150.0	140.0	7.1	10.2	3.5	<0.1	32.0	0.103	85.9	1.2	0.00						25		50	
21	7.5	13.0						7.1	9.7	3.4				100.0	0.1	0.00									
22	7.4	13.2						7.1	9.7	2.8				88.3	0.4	0.00									
23	8.0	14.5		36.0	1.112			7.2	10.0	3.4		28.0	0.116	91.5	1.4	0.00	<1.8								
24	8.3	15.7		40.0	2.950			7.1	10.1	3.3		32.0	0.103	88.1	0.2	0.00									
25	7.7	14.5		36.0	0.657			7.1	10.9	3.7		30.0	0.103	76.8	1.3	0.00									
26	7.9	14.9		34.0	0.933			6.9	11.9	2.9		28.0	0.062	83.9	1.3	0.00									
27	8.0	14.5	20	36.0	1.112	180	150	6.9	10.4	3.0	<0.1	32.0	0.064	83.6	0.1	0.00						60		69	
28	7.5	14.2						7.0	11.1	2.8				87.4	2.3	0.00									
29	7.6	13.3						7.0	10.6	0.8				78.9	0.8	0.00									
30	8.1	14.6		40.0	1.740			7.0	11.2	3.3		28.0	0.069	77.0	1.1	0.00	<1.8								
31	8.1	14.7		44.0	1.490			7.1	11.1	3.5		28.0	0.097	79.3	2.3	0.00									
																	MEDIAN								
Average	7.9	14.5	19.5	38.2	1.404	208	183	7.0	9.9	3.5	<0.1	29.6	0.075	88.4	1.7	0.0	<1.8					33		49	
Maximum	8.4	16.6	22.0	44.0	3.727	260	220	7.2	11.9	4.9	<0.1	32.0	0.116	102	4.4	0.0	<1.8					60		69	
Minimum	7.4	12.8	15.0	32.0	0.306	150	140	6.9	7.8	0.8	<0.1	26.0	0.046	76.8	0.1	0.0	<1.8					16		35	

McKinleyville Community Services District
Wastewater Management Facility

Influent & Effluent Testing	pH, Temperature, Ammonia, CL ₂ Res, Settleable Solids, BOD, NFR =	pH, mg/L, ° C	FEBRUARY 2012
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Influent & Effluent Testing	pH, Temperature, Ammonia, CL ₂ Res, Settleable Solids, BOD, NFR =	pH, mg/L, ° C	FEBRUARY 2012
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Influent & Effluent Testing	pH, Temperature, Ammonia, CL ₂ Res, Settleable Solids, BOD, NFR =	pH, mg/L, ° C	FEBRUARY 2012
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INFLUENT								EFFLUENT				AMMONIA		UN-IONIZED		River			Coliform		
Date	pH	Temp	S.S	mg/L	NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	mg/L	NH3 (mg/L)	NTU	CL/2 Res	CL/2 Res	3x5	BOD	NFR		
1	7.7	14.5		36.0	0.657			7.2	12.1	3.1		28.0	0.137	75.8	2.6	0.00					
2	7.8	14.7		40.0	0.911			7.2	11.4	3.8		28.0	0.130	81.5	0.2	0.00					
3	7.9	15.1	15	36.0	1.003	290	290	7.3	10.4	4.3	<0.1	34.0	0.179	93.7	6.3	0.00		25	35		
4	8.2	14.6						7.3	10.8	4				90.5	1.2	0.00					
5	7.7	14.2						7.4	11.5	4.3				112.0	0.5	0.00					
6	8	15.8		40.0	1.358			6.9	12	4.3		30.0	0.067	123.0	6.7	0.00	<1.8				
7	8.3	15.3						6.9	12.2	4.8				122.0	1.5	0.00					
8	7.8	15.6		40.0	0.974			7.4	11.5	4.9		28.0	0.191	128.0	2.7	0.00					
9	8.2	15.3		36.0	2.114			7.1	12	5.0		24.0	0.089	126.0	2.0	0.00					
10	8.3	16.2	17	40.0	3.053	270.0	250.0	7.3	12.1	3.1	<0.1	28.0	0.168	137.0	0.1	0.00		48	47		
11	7.6	13.5						7.1	11.9	2.9				130.0	0.1	0.00					
12	7.4	14.6						7.0	11.9	3.6				108.0	0.2	0.00					
13	8.3	14.7		38.0	2.612			7.1	11.4	5.6		28.0	0.099	108.0	2.7	0.00	<1.8				
14	8.0	15.1		40.0	1.291			6.8	10.8	3.5		32.0	0.055	102.0	1.0	0.00					
15	8.1	13.9		26.0	1.075			7.2	9.8	3.9		24.0	0.098	101.0	1.0	0.00					
16	7.9	13.9		30.0	0.765			6.7	9.4	3.2		28.0	0.035	105.0	1.8	0.00					
17	8.1	14.9	20	28.0	1.244	280	300	7.1	10.9	3.8	<0.1	28.0	0.095	113.0	1.4	0.00		47	44		
18	7.2	13.4						6.8	10.4	4.6				117.0	2.9	0.00					
19	7.6	13.5						6.8	9.8	4.6				104.0	3.2	0.00					
20	7.6	13.8						7.1	10.8	5.0				108.0	1.8	0.00					
21	7.9	15.4		36.0	1.025			7.4	11.5	5.3		26.0	0.177	101.0	1.1	0.00					
22	8.1	15.1		40.0	1.804			7.0	12.2	5.3		30.0	0.079	98.9	1.6	0.00	<1.8				
23	8.3	16.2		30.0	2.289			7.1	11.6	4.4		20.0	0.072	110.0	2.1	0.00					
24	8.0	15.8	22	38.0	1.290	260.0	220.0	7.0	11.8	4.8	<0.1	26.0	0.067	106.0	2.8	0.00		28	31		
25	8.3	14.1		46.0	3.030			6.8	10.5	3.7		36.0	0.060	92.1	3.0	0.00					
26	8.1	14.0		42.0	1.748			6.8	9.5	3.7		36.0	0.056	87.5	2.7	0.00					
27	7.9	14.4		38.0	1.007			7.0	9.5	4.3		34.0	0.073	88.0	3.4	0.00	<1.8				
28	8.0	15.0		40.0	1.282			6.8	10.2	3.1		32.0	0.053	87.7	1.9	0.00					
29	8.2	15.1		38.0	2.200			6.8	9.6	3.1		32.0	0.050	89.9	5.2	0.00					
																	MEDIAN				
Average	7.9	14.7	18.5	37.0	1.559	275	265	7.0	11.0	4.1	<0.1	29.1	0.097	105.1	2.2	0.0	<1.8	37	39		
Maximum	8.3	16.2	22.0	46.0	3.053	290	300	7.4	12.2	5.6	<0.1	36.0	0.191	137	6.7	0.0	<1.8	48	47		
Minimum	7.2	13.4	15.0	26.0	0.657	260	220	6.7	9.4	2.9	<0.1	20.0	0.035	75.8	0.1	0.0	<1.8	25	31		

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

MARCH 2012

INFLUENT								EFFLUENT				AMMONIA				UN-IONIZED				River		Coliform		
Date	pH	Temp	S.S	mg/L	NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	mg/L	NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res	3x5	BOD	NFR					
1	7.8	13.8		34.0	0.726			6.7	9.8	3.2		26.0	0.034	89.6	3.9	0.00								
2	8.2	14.7	19.0	34.0	1.913	230	190.0	7.4	9.2	4.4	<0.1	28.0	0.159	85.1	1.7	0.00		17	30					
3	7.8	14.0						7.3	9.6	3.3				84.1	0.2	0.00								
4	8.2	14.3						7.3	9.8	2.6				87.2	0.1	0.00								
5	7.9	14.4		36.0	0.954			6.8	10.9	3.0		34.0	0.059	82.9	0.3	0.00	<1.8							
6	7.9	13.9		36.0	0.919			6.7	10	3.1		30.0	0.039	70.2	2.1	0.00								
7	8.3	15.9		42.0	5.111			6.7	9.9	3.4		32.0	0.042	78.1	2.5	0.00								
8	8.1	14.4		34.0	1.458			6.7	10.6	3.1		30.0	0.041	76.9	2.8	0.00								
9	8.2	14.6	20.0	42.0	2.348	230	190	6.7	10.3	3.1	<0.1	34.0	0.046	75.8	1.5	0.00		18	30					
10	7.4	13.4						7.4	11.3	4.0				72.2	1.0	0.00								
11	8	14.5						7.6	11.8	3.4				72.1	3.0	0.00								
12	7.6	14.5		36.0	0.505			6.8	10.8	3.0		32.0	0.055	67.0	1.3	0.00	<1.8							
13	8	14.2		36.0	1.088			6.7	10.1	3.5		32.0	0.042	78.1	0.7	0.00								
14	8.0	14.1		38.0	1.140			6.8	10.6	3.2		34.0	0.058	77.7	0.3	0.00								
15	7.8	14.7		34.0	0.774			6.8	11.8	2.9		32.0	0.060	77.9	0.1	0.00								
16	7.7	14.6	18.0	32.0	0.588	210.0	160.0	6.7	12.1	3.5	<0.1	34.0	0.053	59.9	4.0	0.00		17	23					
17	7.7	13.2						6.9	10.6	4.1				53.6	2.8	0.00								
18	7.2	14.1						6.8	12.3	5.1				53.8	2.3	0.00								
19	7.6	14.0		32.0	0.435			6.7	10.6	3.5		30.0	0.041	54.8	1.6	0.00	<1.8							
20	7.3	14.0		34.0	0.236			6.8	10.7	4.1		34.0	0.058	52.5	2.1	0.00								
21	7.9	15.0		36.0	0.995			6.8	12.5	4.5		30.0	0.059	52.1	1.8	0.00								
22	7.6	15.2		38.0	0.559			6.9	12.0	3.5		30.0	0.067	63.3	0.1	0.00								
23	7.9	14.6	21	32.0	0.859	180	180	6.8	10.9	4.4	<0.1	24.0	0.041	53.0	0.1	0.00		20	31					
24	7.5	14.0						6.7	11.5	4.2				63.8	0.2	0.00								
25	7.6	13.6						6.8	11.5	3.5				52.7	0.3	0.00								
26	7.9	14.7		32.0	0.866			6.7	11.5	2.8		32.0	0.047	50.5	0.4	0.00	<1.8							
27	7.9	14.4		36.0	0.953			6.8	11.2	3.8		32.0	0.056	49.1	3.0	0.00								
28	8.0	14.2		34.0	1.027			6.8	11.2	3.1		30.0	0.053	48.9	0.3	0.00								
29	8.0	14.8		36.0	1.137			6.9	12.4	4.0		32.0	0.074	50.2	0.5	0.00								
30	7.7	14.8	14.0	24.0	0.446	200.0	210.0	6.7	12.4	3.0	<0.1	20.0	0.032	48.9	8.9	0.00		20	24					
31	7.3	14.0						6.8	12.3	3.7				49.2	3.8	0.00								
																	MEDIAN							
Average	7.8	14.3	18.4	34.9	1.138	210	186	6.9	11.0	3.5	<0.1	30.5	0.055	65.5	1.7	0.0	<1.8	18	28					
Maximum	8.3	15.9	21.0	42.0	5.111	230	210	7.6	12.5	5.1	<0.1	34.0	0.159	89.6	8.9	0.0	<1.8	20	31					
Minimum	7.2	13.2	14.0	24.0	0.236	180	160	6.7	9.2	2.6	<0.1	20.0	0.032	48.9	0.1	0.0	<1.8	17	23					

McKinleyville Community Services District

Wastewater Management Facility

Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

APRIL 2012

INFLUENT								EFFLUENT								River			
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	NTU	CL ₂ Res	CL ₂ Res	Coliform 3x5	BOD	NFR
1	7.5	13.8						6.9	11.6	3.8				46.7	0.7	0.00			
2	7.2	13.8		24.0	0.133			6.9	11.5	3.5		26.0	0.056	44.2	1.5	0.00	<1.8		
3	7.7	14.6		32.0	0.587			6.8	12.7	3.7		28.0	0.055	42.7	0.5	0.00			
4	7.7	14.8		34.0	0.632			6.8	11.4	3.9		26.0	0.047	42.5	1.7	0.00			
5	7.6	14.4		32.0	0.445			7.0	11.4	4.0		28.0	0.069	41.0	1.7	0.00			
6	7.7	14.5	19	36.0	0.656	180.0	140.0	7.0	11	5.3	<0.1	24.0	0.057	58.9	3.3	0.00		27	31
7	7.8	14.1						6.7	12.5	2.9				41.7	1.0	0.00			
8	7.8	14.1						7.2	13.4	3.7				42.2	0.2	0.00			
9	7.3	13.8		30.0	0.205			6.7	12.5	3.8		32.0	0.051	40.3	2.1	0.00	<1.8		
10	7.4	14.1		32.0	0.265			6.7	12.9	3.7		32.0	0.052	40.5	1.8	0.00			
11	7.4	13.8		30.0	0.243			6.7	12.9	4.4		28.0	0.045	39.8	5.8	0.00			
12	7.4	14		34.0	0.280			6.8	12.6	4.5		32.0	0.063	38.0	4.8	0.00			
13	7.5	13.7	16	32.0	0.298	180.0	180.0	6.9	10.4	6.0	<0.1	28.0	0.055	36.4	4.7	0.00		17	19
14	7.5	14.1						6.9	12	4.6				43.1	0.1	0.00			
15	7.5	13.5						6.8	12.6	3.8				43.1	0.1	0.00			
16	7.4	14.2		28.0	0.233			6.9	13.7	4.2		30.0	0.076	42.2	0.4	0.00	2.0		
17	7.5	14.4		34.0	0.331			6.8	13.7	4.5		32.0	0.068	45.0	2.0	0.00			
18	7.8	15.0		36.0	0.837			6.7	14.0	4.5		28.0	0.053	43.8	1.2	0.00			
19	7.9	15.5		34.0	0.976			6.8	14.5	5.0		28.0	0.064	43.8	1.4	0.00			
20	7.5	15.3	15	38.0	0.400	160.0	110.0	6.7	14.3	4.7	<0.1	30.0	0.055	46.0	1.3	0.00		20	14
21	7.4	14.3						7.1	14.6	4.7				44.4	1.0	0.00			
22	7.3	14.7						7.0	14.8	3.4				48.1	1.8	0.00			
23	7.4	14.7		34.0	0.290			6.8	14.8	4.9		28.0	0.065	51.2	4.1	0.00	<1.8		
24	7.7	16.0		36.0	0.735			6.7	15.6	4.5		30.0	0.060	54.9	4.1	0.00			
25	7.5	15.2		34.0	0.355			6.8	15.8	4.3		28.0	0.070	55.3	2.3	0.00			
26	7.6	15.5		36.0	0.543			6.8	15.3	4.4		32.0	0.077	63.9	4.2	0.00			
27	7.7	15.5	17	34.0	0.667	280	330	6.7	14.8	4.4	<0.1	30.0	0.057	59.8	2.3	0.00		20	17
28	7.6	15.6						6.8	14.9	4.2				52.5	0.4	0.00			
29	7.3	14.7						6.8	15.6	4.7				51.0	0.3	0.00			
30	7.7	16.1		42.0	0.864			6.7	15.8	4.4		30.0	0.061	50.1	1.5	0.00	<1.8		
																	MEDIAN		
Average	7.5	14.6	16.8	33.4	0.475	200	190	6.8	13.5	4.3	<0.1	29.0	0.060	46.4	1.9	0.0	<1.8	21	20
Maximum	7.9	16.1	19.0	42.0	0.976	280	330	7.2	15.8	6	<0.1	32.0	0.077	63.9	5.8	0.0	2	27	31
Minimum	7.2	13.5	15.0	24.0	0.133	160	110	6.7	10.4	2.9	<0.1	24.0	0.045	36.4	0.1	0.0	<1.8	17	14

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

MAY 2012

INFLUENT								EFFLUENT				AMMONIA				UN-IONIZED				River		Coliform		
Date	pH	Temp	S.S	mg/L	NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	mg/L	NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res	3x5	BOD	NFR					
1	7.7	15.4		40.0	0.779			6.8	15.6	3.9		30.0	0.074	44.0	2.8	0.00								
2	7.9	15.5		44.0	1.263			6.7	15	4.4		28.0	0.054	43.8	2.0	0.00								
3	7.9	15.7		40.0	1.165			6.6	15.2	4.0		28.0	0.042	45.8	2.0	0.00								
4	7.7	15.6	19.0	38.0	0.752	240	250	6.5	14.7	4.5	<0.1	30.0	0.030	45.3	1.6	0.00		14	12					
5	7.6	15.1						6.7	14.7	4.0				45.5	2.8	0.00								
6	7.3	14.7						6.9	15.3	4.5				46.8	2.2	0.00								
7	7.8	15.7		36.0	0.883			6.7	15.5	3.9		28.0	0.056	46.3	3.0	0.00	<1.8							
8	7.8	16.2		40.0	1.019			6.9	16.4	4.3		26.0	0.082	53.6	4.1	0.00								
9	7.9	16		44.0	1.310			6.8	16.3	4.6		28.0	0.074	50.6	3.7	0.00								
10	8.1	16.5		44.0	2.190			7.2	15.8	3.4		22.0	0.142	57.4	5.2	0.00								
11	8.2	16.7	22.0	42.0	2.719	200.0	150.0	6.7	14.3	4.3	<0.1	24.0	0.044	48.1	2.7	0.00		20	16					
12	8.3	16						6.8	14.9	4.8				58.7	3.5	0.00								
13	7.4	15.3						6.9	15.2					63.3	2.9	0.00								
14	7.8	16.7		44.0	1.162			6.7	15.9	5.9		28.0	0.058	73.9	2.6	0.00	<1.8							
15	7.9	16.6		38.0	1.181																			
16	7.8	16.1		44.0	1.113			7.0	14.9	4.3		28.0	0.091	93.9	0.4									
17	7.6	15.8		38.0	0.589			6.8	15.4	4.4		28.0	0.069	82.6	0.6									
18	7.8	15.6	22.0	44.0	1.072	260	410	6.7	14.9	3.7	<0.1	28.0	0.054	89.9	2.6			13	16					
19																								
20																								
21	8.1	17.2		44.0	2.195			6.8	15.8	4.6		26.0	0.038	94.9	1.2		4.0							
22	7.8	16.2		36.0	0.917			6.8	15.8	4.0		24.0	0.061	91.2	2.2									
23	7.9	16.1		40.0	1.200			6.9	16.5	4.9		24.0	0.076	109.0	2.1									
24	7.8	16.1		40.0	1.034			6.6	15.4	4.9		26.0	0.040	115.0	1.9									
25	8.1	17.0	26.0	42.0	2.163	210.0	190.0	6.7	15.2	4.5	<0.1	20.0	0.039	118.0	2.5			15	18					
26																								
27																								
28																								
29	7.7	16.3		40.0	0.836			6.8	15.8	3.8		24.0	0.061	110.0	4.9		<1.8							
30	8.1	17.6		44.0	2.365			6.8	15.8	5.0		22.0	0.056	126.0	3.8									
31	7.8	17.5		44.0	1.230			6.9	16.3	3.2		24.0	0.075	132.0	4.1									
																	MEDIAN							
Average	7.8	16.1	22.3	41.2	1.324	228	250	6.8	15.5	4.3	<0.1	26.0	0.063	75.4	2.7	0.0	<1.8	16	16					
Maximum	8.3	17.6	26.0	44.0	2.719	260	410	7.2	16.5	5.9	<0.1	30.0	0.142	132	5.2	0.0	4	20	18					
Minimum	7.3	14.7	19.0	36.0	0.589	200	150	6.5	14.3	3.2	<0.1	20.0	0.030	43.8	0.4	0.0	<1.8	13	12					

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

JUNE 2012

INFLUENT								EFFLUENT								River								Coliform			
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res		3x5	BOD	NFR							
1	7.8	16.6	21.0	34.0	0.891	230	180	6.5	16.6	3.4	<0.1	24.0	0.028	135.0	4.9				20	24							
2																											
3																											
4	7.7	17.1		30.0	0.663			6.9	16.8	4.8		24.0	0.077	121.0	2.3			<1.8									
5	7.9	17.3		40.0	1.307			6.9	16.3	5.1		18.0	0.056	128.0	4.3												
6	7.7	16.9		40.0	0.872			6.8	16.1	4.1		22.0	0.057	149.0	3.7												
7	7.6	16.5		40.0	0.654			6.9	15.9	3		28.0	0.085	153.0	3.8												
8	7.9	17.6	10.0	38.0	1.269	310	290	7.1	16.2	4.3	<0.1	28.0	0.143	156.0	2.6				20	19							
9																											
10																											
11	8.1	18		36.0	1.988			6.9	16.2	5.6		22.0	0.068	134.0	1.6			<1.8									
12	7.8	17.4		28.0	0.109			6.9	16.5	4.5		20.0	0.063	146.0	2.3												
13	7.5	16.9		38.0	0.450			6.9	16.8	4.4		20.0	0.064	148.0	2.2												
14	8.0	17.5		34.0	1.303			7.0	17	4.7		24.0	0.091	145.0	1.4												
15	7.9	17.4	20.0	32.0	1.053	370	550	7.0	17.2	4.3	<0.1	24.0	0.092	150.0	1.8				21	24							
16																											
17																											
18	8.1	17.6		42.0	2.258			6.9	16.9	5.6		28.0	0.091	115.0	0.9			<1.8									
19	7.9	18.0		40.0	1.394			6.8	17.2	4.1		22.0	0.062	135.0	1.6												
20	7.6	16.6		40.0	0.593			6.8	16.9	4.2		22.0	0.082	137.0	3.8												
21	7.9	18.0		46.0	1.580			6.9	17.2	3.4		30.0	0.100	139.0	3.7												
22	7.5	17.5	20.0	36.0	0.446	330	350	7.0	17.0	5.1	<0.1	28.0	0.106	128.0	5.3				18	18							
23																											
24																											
25	7.5	17.3		36.0	0.440			6.9	16.8	4.5		28.0	0.091	112.0	3.6			<1.8									
26	8.1	18.6		44.0	2.540			7.0	17.3	3.0		20.0	0.078	100.0	0.6												
27	7.8	17.7		36.0	1.021			6.7	16.6	3.6		28.0	0.061	118.0	5.3												
28	8.0	18.8		40.0	1.685			6.8	17.1	3.6		30.0	0.084	115.0	4.2												
29	7.7	18.5	18.0	44.0	1.074	320	510	6.7	17.8	4.2	<0.1	20.0	0.048	114.0	5.7				32	18							
30																											
																		MEDIAN									
Average	7.8	17.5	17.8	37.8	1.123	312	376	6.9	16.8	4.3	<0.1	24.3	0.077	132.3	3.1	0.0		<1.8		22	21						
Maximum	8.1	18.8	21.0	46.0	2.540	370	550	7.1	17.8	5.6	<0.1	30.0	0.143	156	5.7	0.0		<1.8		32	24						
Minimum	7.5	16.5	10.0	28.0	0.109	230	180	6.5	15.9	3	<0.1	18.0	0.028	100	0.6	0.0		<1.8		18	18						

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

JULY 2012

INFLUENT								EFFLUENT								River								Coliform	
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res	3x5	BOD	NFR						
1																									
2	7.8	18.6		44.0	1.330			6.7	18.4	3.5		30.0	0.075	118.0	2.6		<1.8								
3	7.4	17.5		36.0	0.385			6.7	17.4	3.9		28.0	0.065	101.0	0.4										
4																									
5	7.8	17.8		44.0	1.257			6.8	17.8	4.1		32.0	0.094	108.0	6.7										
6	7.8	18.0	20	40.0	1.159	320.0	280.0	6.8	18	3.0	<0.1	24.0	0.072	115.0	4.4			21	17						
7																									
8																									
9	7.6	18.4		40.0	0.747			6.8	18.6	3.0		28.0	0.087	103.0	6.4		<1.8								
10	7.4	18.2		40.0	0.449			6.8	17.8	4.0		30.0	0.088	114.0	3.6										
11	7.3	17.7		36.0	0.329			6.9	17.6	3.2		30.0	0.103	126.0	2.8										
12	7.7	18.2		40.0	0.957			6.9	17.6	3.0		28.0	0.096	131.0	3.7										
13	7.7	18.4	20	34.0	0.824	290.0	300.0	6.9	17.5	4.4	<0.1	20.0	0.068	131.0	4.1			20	18						
14																									
15																									
16	7.3	17.9		36.0	0.334			7.0	17.6	3.6		28.0	0.112	117.0	6.0		<1.8								
17	7.3	18.0		36.0	0.336																				
18	7.4	18.1		40.0	0.446			6.8	17.6	3.9		30.0	0.087	80.7	8.6										
19	7.7	18.6		44.0	1.081			6.9	17.5	3.2		30.0	0.102	117.0	4.0										
20	7.6	18.6	20	44.0	0.833	160.0	330.0	7.0	18.0	3.0	<0.1	30.0	0.123	129.0	4.5			22	13						
21																									
22																									
23	7.6	18.0		36.0	0.656			6.8	17.9	4.0		28.0	0.083	120.0	5.7		<1.8								
24	7.8	18.7		40.0	1.217			6.7	17.8	2.8		36.0	0.086	122.0	3.0										
25	7.4	18.4		36.0	0.409			6.9	17.8	2.9		28.0	0.098	149.0	4.9										
26	8.0	19.2		42.0	1.820			6.9	17.8	3.3		32.0	0.112	150.0	2.8										
27	8.1	19.4	32	44.0	2.686	320	530	6.8	17.6	3.2	<0.1	30.0	0.089	153.0	2.7			19	15						
28																									
29																									
30	7.5	18.3		36.0	0.470			6.8	17.8	3.7		28.0	0.076	128.0	3.0		<1.8								
31	7.6	18.7		44.0	0.838			6.9	17.9	3.4		36.0	0.127	130.0	1.0										
																	MEDIAN								
Average	7.6	18.3	23.0	39.6	0.884	273	360	6.8	17.8	3.5	<0.1	29.3	0.092	122.1	4.0		<1.8	21	16						
Maximum	8.1	19.4	32.0	44.0	2.686	320	530	7.0	18.6	4.4	<0.1	36.0	0.127	153	8.6		<1.8	22	18						
Minimum	7.3	17.5	20.0	34.0	0.329	160	280	6.7	17.4	2.8	<0.1	20.0	0.065	80.7	0.4		<1.8	19	13						

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

AUGUST 2012

INFLUENT								EFFLUENT								River								Coliform	
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res	3x5	BOD	NFR						
1	7.8	18.8		42.0	1.287			6.8	17.9	2.7		28.0	0.083	154.0	2.7										
2	7.6	18.3		42.0	0.780			7.0	17.9	3.3		32.0	0.130	159.0	3.1										
3	8.0	18.9	24	44.0	1.866	270	200	7.0	17.8	3.2	<0.1	32.0	0.129	163.0	3.7				24	18					
4																									
5																									
6	7.9	19.9		46.0	1.811			7.0	18.5	3.9		26.0	0.111	136.0	4.2		<1.8								
7	7.7	19		40.0	1.009			7.0	18.1	3		30.0	0.124	157.0	3.3										
8	7.8	18.8		32.0	0.980			6.8	17.7	2.8		32.0	0.093	156.0	3.7										
9	7.6	18.8		40.0	0.766			6.9	18.1	2.8		32.0	0.114	155.0	3.6										
10	8.1	19.4	23	42.0	2.563	270.0	280.0	7.0	18.1	4.2	<0.1	20.0	0.082	153.0	3.7				30	17					
11																									
12																									
13	7.5	18.6		36.0	0.477			7.0	17.3	4.0		26.0	0.101	125.0	3.4		<1.8								
14	8.1	19.6		46.0	2.846			6.7	17.6	3.4		30.0	0.087	147.0	2.9										
15	7.6	18.8		38.0	0.728			6.8	17.9	3.0		30.0	0.089	167.0	3.3										
16	7.8	18.8		40.0	1.226			6.8	17.8	2.8		30.0	0.121	160.0	3.2										
17	7.7	18.9	16	44.0	1.103	230	250	7.0	17.8	3.6	<0.1	28.0	0.113	161.0	4.0				28	14					
18																									
19																									
20	7.6	18.3		38.0	0.706			6.9	17.3	3.9		26.0	0.081	134.0	4.4		<1.8								
21	8.0	19.1		44.0	1.893			6.9	17.6	2.9		36.0	0.124	159.0	3.2										
22	7.7	18.9		42.0	1.053			7.0	18.0	2.7		36.0	0.148	161.0	3.0										
23	7.4	18.5		40.0	0.456			7.1	17.6	2.1		36.0	0.205	162.0	3.0										
24	7.4	18.4	7	36.0	0.408	270.0	310.0	7.0	17.7	4.4	<0.1	28.0	0.112	163.0	2.9				26	17					
25																									
26																									
27	8.1	20.4		40.0	2.612			6.9	18.0	4.2		30.0	0.106	131.0	1.8		22								
28	7.5	18.5		38.0	0.502			6.9	17.7	3.0		32.0	0.111	153.0	1.0										
29	7.9	19.1		40.0	1.487			6.8	17.3	3.0		32.0	0.091	150.0	3.4										
30	7.8	19.1		42.0	1.314			6.9	17.6	3.2		32.0	0.110	140.0	3.0										
31	7.5	18.5	10	38.0	0.501	300	310	6.9	17.6	3.1	<0.1	28.0	0.096	134.0	3.0				28	12					
																	MEDIAN								
Average	7.7	18.9	16.0	40.4	1.234	268	270	6.9	17.8	3.3	<0.1	30.1	0.111	151.3	3.2	0.0	<1.8		27	16					
Maximum	8.1	20.4	24.0	46.0	2.846	300	310	7.1	18.5	4.4	<0.1	36.0	0.205	167	4.4	0.0	22		30	18					
Minimum	7.4	18.3	7.0	32.0	0.408	230	200	6.7	17.3	2.1	<0.1	20.0	0.081	125	1	0.0	<1.8		24	12					

McKinleyville Community Services District

Wastewater Management Facility

Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

SEPTEMBER 2012

INFLUENT								EFFLUENT								River							
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res	Coliform 3x5	BOD	NFR				
1																							
2																							
3																							
4	8.1	20.0		42.0	2.669			6.9	17.1	3.8		26.0	0.086	116.0	2.4		<1.8						
5	8	19.1		44.0	1.893			6.7	16.6	3.5		28.0	0.061	126.0	3.2								
6	8	19.7		46.0	2.066			6.8	16.5	3.5		30.0	0.080	129.0	3.7								
7	8	19.2	18	44.0	1.907	300	330	6.8	16.4	3.6	<0.1	30.0	0.079	130.0	3.2			25	14				
8																							
9																							
10	8.0	19.7		44.0	1.567			6.9	16.4	3.5		34.0	0.107	129.0	3.7		<1.8						
11	7.8	18.9		40.0	1.234			6.8	16.2	3.4		24.0	0.063	133.0	2.7								
12	7.8	19.4		44.0	1.409			6.9	16.3	3.5		26.0	0.081	134.0	3.1								
13	7.9	18.8		42.0	1.528			7.0	16.2	3.3		28.0	0.100	133.0	3.1								
14	7.5	17.9	20	42.0	0.536	270.0	240.0	6.9	16.4	4.3	<0.1	36.0	0.113	127.0	3.0			27	15				
15																							
16																							
17	7.8	18.0		44.0	1.275			7.0	17.0	6.0		28.0	0.107	113.0	2.6		<1.8						
18	8.2	19.5		48.0	3.775			7.0	16.0	3.7		28.0	0.099	120.0	1.8								
19	8.1	18.8		44.0	2.576			6.8	15.5	3.5		28.0	0.069	116.0	1.8								
20	7.8	18.3		44.0	1.302			7.1	15.8	4.1		30.0	0.149	132.0	0.1								
21	8.0	18.6	20.0	42.0	1.744	340	320	7.0	15.6	3.4	<0.1	28.0	0.096	125.0	1.5			40	19				
22																							
23																							
24	8.1	18.1		42.0	2.337			6.7	15.4	3.7		28.0	0.055	109.0	3.1		<1.8						
25	7.6	18.0		40.0	0.728			6.8	15.2	4.6		34.0	0.082	130.0	0.7								
26	8.0	18.7		46.0	1.923			6.8	15.2	4.4		34.0	0.082	133.0	2.1								
27	8.0	18.7		44.0	1.840			6.8	15.2	4.2		32.0	0.077	134.0	2.3								
28	7.8	18.4	24	46.0	1.370	270.0	260.0	6.8	15.0	4.7	<0.1	34.0	0.080	136.0	2.2			26	26				
29																							
30																							
																	MEDIAN						
Average	7.9	18.8	20.5	43.6	1.773	295	288	6.9	16.0	3.9	<0.1	29.8	0.088	126.6	2.4	0.0	<1.8	30	19				
Maximum	8.2	20	24.0	48.0	3.775	340	330	7.1	17.1	6	<0.1	36.0	0.149	136	3.7	0.0	<1.8	40	26				
Minimum	7.5	17.9	18.0	40.0	0.536	270	240	6.7	15	3.3	<0.1	24.0	0.055	109	0.1	0.0	<1.8	25	14				

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

OCTOBER 2012

INFLUENT								EFFLUENT								River			
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	NTU	CL ₂ Res	CL ₂ Res	Coliform 3x5	BOD	NFR
1	7.7	18.5		42.0	1.025			6.9	15.1	5.4		30.0	0.085	115.0	5.7		<1.8		
2	7.7	18.4		44.0	1.066			6.9	15.4	3		32.0	0.093	136.0	2.9				
3	7.6	17.8		42.0	0.754			6.8	15	4.3		32.0	0.076	140.0	4.1				
4	7.9	18.5		44.0	1.567			6.9	15.1	4.5		34.0	0.096	148.0	4.0				
5	7.7	18.6	26.0	42.0	1.031	320	270	6.9	15.5	4.7	<0.1	34.0	0.099	147.0	3.2			32	21
6																			
7																			
8																			
9	7.6	18.2		46.0	0.848			6.9	15.1	4.8		34.0	0.096	118.0	4.0		<1.8		
10	7.8	17.6		42.0	1.182			7.0	15.2	2.9		28.0	0.091	125.0	5.1				
11	8.1	19		46.0	2.731			7.0	14.8	4.4		36.0	0.116	135.0	4.2				
12	7.6	17.6	14.0	42.0	0.744	400	400	7.1	15.1	3.4	<0.1	32.0	0.149	135.0	4.8			33	14
13																			
14																			
15	7.7	19.2		42.0	1.076			6.8	16.1	4.2		34.0	0.087	140.0	4.8		<1.8		
16	7.7	19.0		40.0	1.008			6.8	16.3	4.0		34.0	0.089	153.0	1.4				
17	7.8	18.2		40.0	1.175			6.9	15.2	4.1		32.0	0.091	151.0	1.1				
18	8.2	19.1		46.0	3.521			6.8	14.9	4.2		36.0	0.085	153.0	3.0				
19	7.7	18.0	24.0	46.0	1.085	280	200	6.8	14.8	4.3	<0.1	34.0	0.079	158.0	4.3			28	22
20																			
21																			
22	8.1	18.3		44.0	2.485			7.0	14.3	4.7		34.0	0.105	148.0	4.5		<1.8		
23	8.3	18.0		44.0	3.797			7.0	13.5	4.6		32.0	0.093	149.0	4.5				
24	7.5	16.9		42.0	0.498			7.0	13.1	4.4		36.0	0.101	171.0	4.2				
25	7.8	17.7		42.0	1.191			7.0	13.2	4.2		36.0	0.102	170.0	3.0				
26	7.6	17.1	29.0	44.0	0.751	310	250	7.1	13.3	4.3	<0.1	34.0	0.139	168.0	3.1			34	32
27																			
28																			
29	8.1	19.1		46.0	2.750			7.0	14.9	3.7		34.0	0.110	150.0	2.9		<1.8		
30	7.7	18.3		44.0	1.059			7.0	15.0	4.0		34.0	0.111	157.0	2.7				
31	8.2	19.4		48.0	3.749			6.9	15.1	3.6		36.0	0.102	164.0	2.7				
																	MEDIAN		
Average	7.8	18.3	23.3	43.5	1.595	328	280	6.9	14.8	4.2	<0.1	33.5	0.100	146.9	3.6	0.0	<1.8	32	22
Maximum	8.3	19.4	29.0	48.0	3.797	400	400	7.1	16.3	5.4	<0.1	36.0	0.149	171	5.7	0.0	<1.8	34	32
Minimum	7.5	16.9	14.0	40.0	0.498	280	200	6.8	13.1	2.9	<0.1	28.0	0.076	115	1.1	0.0	<1.8	28	14

McKinleyville Community Services District
Wastewater Management Facility
Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

NOVEMBER 2012

INFLUENT								EFFLUENT								AMMONIA		UN-IONIZED		River		Coliform		
Date	pH	Temp	S.S	mg/L	NH3 (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	mg/L	NH3 (mg/L)	NTU	CL ₂ Res	CL ₂ Res	3x5	BOD	NFR					
1	7.7	18.0		44.0	1.038			6.8	15	3.5		36.0	0.085	167.0	2.5									
2	8.1	18.8	35.0	42.0	2.459	430	400.0	7.0	14.9	2.6	<0.1	30.0	0.098	170.0	2.7			33	35					
3																								
4																								
5	7.7	18.5		42.0	1.025			6.8	15.2	5.0		28.0	0.069	151.0	2.9		23.0							
6	7.6	18.0		42.0	0.765			7.0	15.5	4.1		32.0	0.109	172.0	2.8									
7	7.9	18.2		46.0	1.603			6.9	15.3	3.7		32.0	0.093	176.0	2.6									
8	7.8	17.1		42.0	1.141			7.2	14.3	3.8		30.0	0.172	174.0	2.7									
9	7.7	15.9		40.0	0.811	310	290	7.1	13.5	4.0		34.0	0.142	162.0	3.3			31	35					
10																								
11																								
12																								
13	8	18		44.0	1.748			6.9	14.2	4.7		28.0	0.075	109.0	3.3		<1.8							
14	7.8	17.5		44.0	1.230			6.8	13.3	4.0		28.0	0.058	149.0	3.1									
15	8.3	18.5		48.0	4.296			6.9	12.8	3.3		32.0	0.076	155.0	3.3									
16	8.3	18.1	28.0	46.0	3.999	250.0	480.0	7.1	12.9	3.0	<0.1	32.0	0.127	161.0	2.7			44	36					
17																								
18																								
19	7.7	17.2		44.0	0.980			7.1	13.6	5.8		28.0	0.118	139.0	2.8		<1.8							
20	7.6	16.7		40.0	0.664			7.1	14.2	4.0		30.0	0.132	152.0	2.6	0.00								
21	7.9	16.8	20.0	48.0	0.153	250	190	7.0	13.4	3.4	<0.1	36.0	0.104	127.0	3.2	0.00		44	32					
22	7.3	16.0						7.0	12.4	3.6				101.0	1.0	0.00								
23	7.7	16.3						7.2	12.3	3.4				122.0	2.4	0.00								
24	7.3	15.8						7.3	12.3	3.2				114.0	2.3	0.00								
25	7.6	16.8						7.3	13.0	2.4				115.0	2.7	0.00								
26	7.9	17.3		42.0	1.372			7.1	13.3	3.9		32.0	0.131	118.0	1.7		>1600							
27	7.6	16.7		48.0	0.797			6.9	13.1	4.3		32.0	0.078	160.0	4.6									
28	7.8	16.9		46.0	1.231			7.1	12.9	4.6		36.0	0.143	146.0	5.6									
29	8.1	17.0		40.0	2.060			7.2	13.8	4.3		30.0	0.166	142.0	2.9	0.00								
30	7.7	16.9	17.0	40.0	0.872	200.0	190.0	7.2	14.0	3.4	<0.1	28.0	0.158	119.0	2.7	0.00	<1.8	44	30					
																	MEDIAN							
Average	7.8	17.3	25.0	43.6	1.487	288	310	7.0	13.7	3.8	<0.1	31.3	0.112	143.5	2.9	0.0	<1.8	39	34					
Maximum	8.3	18.8	35.0	48.0	4.296	430	480	7.3	15.5	5.8	<0.1	36.0	0.172	176	5.6	0.0	>1600	44	36					
Minimum	7.3	15.8	17.0	40.0	0.153	200	190	6.8	12.3	2.4	<0.1	28.0	0.058	101	1	0.0	<1.8	31	30					

McKinleyville Community Services District

Wastewater Management Facility

Influent & Effluent Testing pH, Temperature, Ammonia, CL₂ Res, Settleable Solids, BOD, NFR =

pH, mg/L, ° C

DECEMBER 2012

INFLUENT								EFFLUENT								River			
Date	pH	Temp	S.S	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	BOD	NFR	pH	Temp	D.O.	S.S.	AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	NTU	CL ₂ Res	CL ₂ Res	Coliform 3x5	BOD	NFR
1	7.6	16.2						7.3	14.4	5.5				131.0	2.4	0.00			
2	7.2	15.3						7.0	13.6	3.8				130.0	2.4	0.00			
3	7.6	16.0		36.0	0.568			7.3	13.6	4.2		30.0	0.202	145.0	2.2	0.00	<1.8		
4	7.8	17.0		34.0	0.917			7.4	13.6	3.8		24.0	0.192	138.0	2.5	0.00			
5	7.9	17.1		38.0	1.223			7.0	13.8	3.9		22.0	0.066	109.0	0.3	0.00			
6	7.8	16.1		40.0	1.012			7.2	12.9	3.7		28.0	0.145	108.0	1.8	0.00			
7	8.2	16.7	25	44.0	2.848	240	250	6.9	11.2	3.4	<0.1	32.0	0.068	149.0	3.0	0.00		52	36
8	8.4	15.9						7.2	10.8	2.9				103.0	2.2	0.00			
9	7.9	16.1						7.2	11.2	3.0				112.0	2.2	0.00			
10	7.5	15.9		44.0	0.485			7.2	11.6	5.0		28.0	0.132	110.0	2.1	0.00	<1.8		
11	7.8	15.8		38.0	0.939			7.2	11.4	6.3		26.0	0.120	150.0	1.8	0.00			
12	7.7	15.8		30.0	0.603			7.3	10.7	4.6		20.0	0.107	96.1	1.6	0.00			
13	7.6	15.4		38.0	0.569			6.9	10.5	2.8		36.0	0.072	100.0	1.8	0.00			
14	8.2	16.0	24	36.0	2.219	260	180	7.5	9.6	5.7	<0.1	24.0	0.190	122.0	2.5	0.00		41	35
15	8.6	15.6						7.9	9.8	5.5				99.3	2.1	0.00			
16	8.4	15.6						7.3	10.7	4.1				121.0	1.8	0.00			
17	7.8	15.6		40.0	0.974			7.1	10.7	3.6		28.0	0.094	115.0	2.2	0.00	<1.8		
18	7.4	13.7		36.0	0.290			7.2	9.4	3.4		28.0	0.111	114.0	2.2	0.00			
19	7.8	15.6		44.0	1.072			7.3	10.3	4.0		30.0	0.157	118.0	2.3	0.00			
20	7.7	15.3		40.0	0.773			7.2	10.1	4.0		32.0	0.134	128.0	2.4	0.00			
21	7.4	14.6	17.0	32.0	0.272	280	250	7.3	9.8	3.8	<0.1	26.0	0.131	110.0	2.6	0.00		45	30
22	7.4	14.5						7.1	9.5	4.8				99.8	2.4	0.00			
23	7.5	14.5						7.3	9.2	4.2				100.0	2.3	0.00			
24	7.4	14.6						7.2	9.1	4.7				98.5	2.1	0.00			
25	7.3	14.2						7.2	9.3	4.6				100.0	2.3	0.00			
26	7.3	13.9		30.0	0.207			7.2	10.9	4.3		22.0	0.098	104.0	2.3	0.00	<1.8		
27	7.5	13.8		34.0	0.320			7.2	8.6	4.0		26.0	0.097	98.6	2.4	0.00			
28	7.5	14.2	19	36.0	0.347	270	480	7.2	9.7	4.3	<0.1	28.0	0.114	94.6	1.9	0.00		42	28
29	7.2	13.4						7.2	9.8	3.3				82.9	1.7	0.00			
30	7.1	14.0						7.2	9.9	2.8				93.2	2.0	0.00			
31	7.6	14.4		36.0	0.502			7.0	8.3	3.7		24.0	0.047	95.9	2.0	0.00			
																	MEDIAN		
Average	7.7	15.3	21.3	37.2	0.849	263	290	7.2	10.8	4.1	<0.1	27.1	0.120	112.1	2.1	0.0	<1.8	45	32
Maximum	8.6	17.1	25.0	44.0	2.848	280	480	7.9	14.4	6.3	<0.1	36.0	0.202	150	3	0.0	<1.8	52	36
Minimum	7.1	13.4	17.0	30.0	0.207	240	180	6.9	8.3	2.8	<0.1	20.0	0.047	82.9	0.3	0.0	<1.8	41	28

McKinleyville CSD

Waste Water Management Facility 30 Day Average

BOD & TSS Work Sheet 2012

DATE	Influent	Effluent	INF BOD	EFF BOD	INF TSS	EFF TSS	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
1/6/2012	0.875	0.933	260	16	220	35	16	124	94	35	272	84
1/13/2012	0.848	0.809	240	31	220	42	31	209	87	42	283	81
1/20/2012	1.406	1.780	150	25	140	50	25	371	83	50	742	64
1/27/2012	1.210	2.115	180	60	150	69	60	1058	67	69	1217	54
							33	441	83	49	629	71

Monthly Avg.

DATE	Influent	Effluent	INF BOD	EFF BOD	INF TSS	EFF TSS	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
2/3/2012	1.098	1.090	290	25	290	35	25	227	91	35	318	88
2/10/2012	1.016	1.041	270	48	250	47	48	417	82	47	408	81
2/17/2012	1.018	1.190	280	47	300	44	47	466	83	44	437	85
2/24/2012	0.961	0.865	260	28	220	31	28	202	89	31	224	86
							37	328	87	39	347	85

Monthly Avg.

DATE	Influent	Effluent	INF BOD	EFF BOD	INF TSS	EFF TSS	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
3/2/2012	1.033	0.932	230	17	190	30	17	132	93	30	233	84
3/9/2012	0.965	0.825	230	18	190	30	18	124	92	30	206	84
3/16/2012	1.396	1.088	210	17	160	23	17	154	92	23	209	86
3/23/2012	1.242	1.420	180	20	180	31	20	237	89	31	367	83
3/30/2012	2.021	1.853	200	20	210	24	20	309	90	24	371	89
							18	191	91	28	277	85

Monthly Avg.

DATE	Influent	Effluent	INF BOD	EFF BOD	INF TSS	EFF TSS	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
4/6/2012	1.410	1.642	180	27	140	31	27	370	85	31	425	78
4/13/2012	1.491	0.997	180	17	180	19	17	141	91	19	158	89
4/20/2012	1.308	1.441	160	20	110	14	20	240	88	14	168	87
4/27/2012	1.230	1.313	280	20	330	17	20	219	93	17	186	95
							21	243	89	20	234	87

Monthly Avg.

DATE	Influent	Effluent	INF BOD	EFF BOD	INF TSS	EFF TSS	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
5/4/2012	1.137	1.266	240	14	250	12	14	148	94	12	127	95
5/11/2012	1.061	0.709	200	20	150	16	20	118	90	16	95	89
5/18/2012	0.989	0.730	260	13	410	16	13	79	95	16	97	96
5/25/2012	0.971	0.732	210	15	190	18	15	92	93	18	110	91
							16	109	93	16	107	93

Monthly Avg.

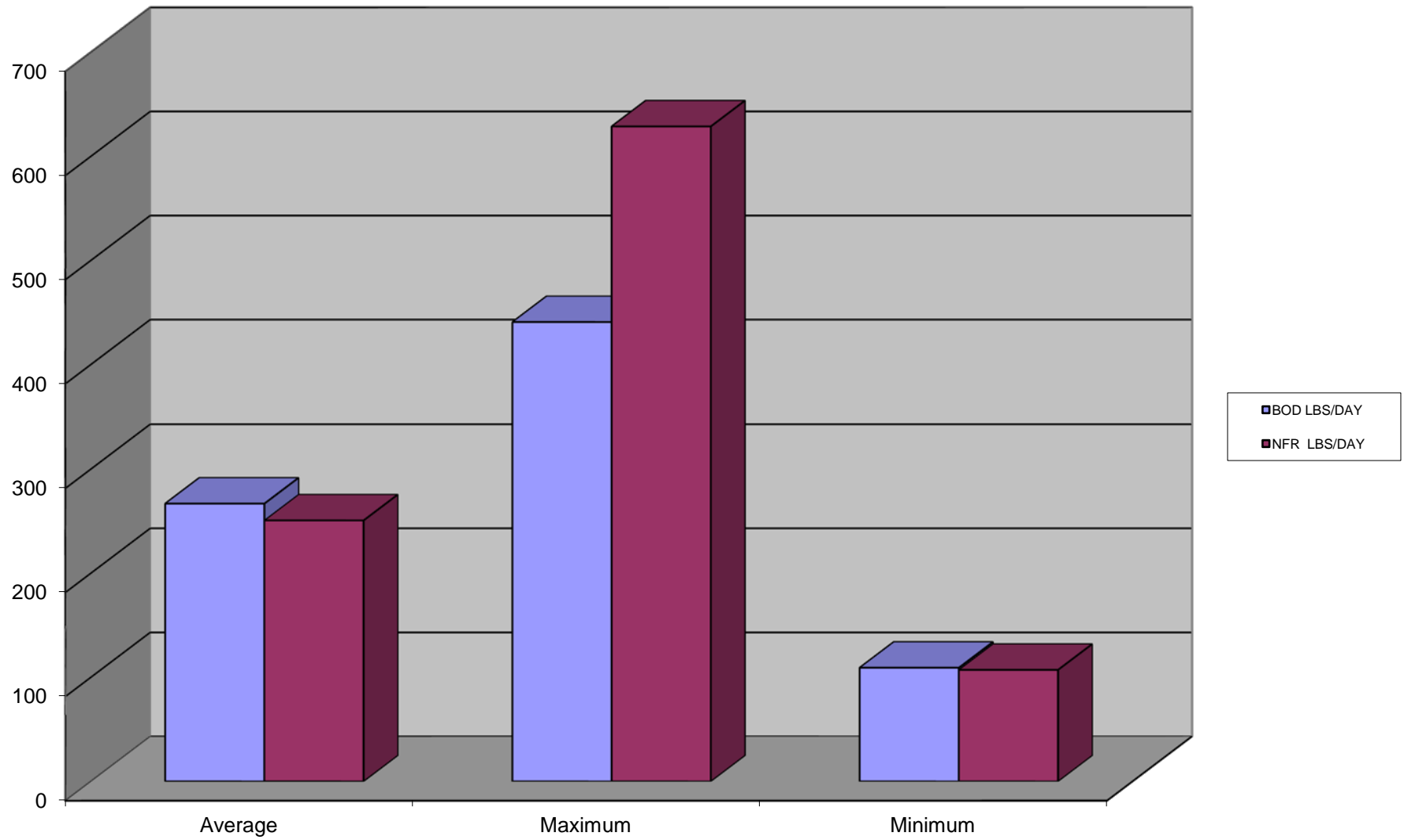
DATE	Influent	Effluent	INF BOD	EFF BOD	INF TSS	EFF TSS	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
6/1/2012	0.947	0.868	230	20	180	24	20	145	91	24	174	87
6/8/2012	0.964	0.833	310	20	290	19	20	139	94	19	132	93
6/15/2012	0.945	0.874	370	21	550	24	21	153	94	24	175	96
6/22/2012	0.929	0.697	330	18	350	18	18	105	95	18	105	95
6/29/2012	0.887	0.807	320	32	510	18	32	215	90	18	121	96
							22	151	93	21	141	93

Monthly Avg.

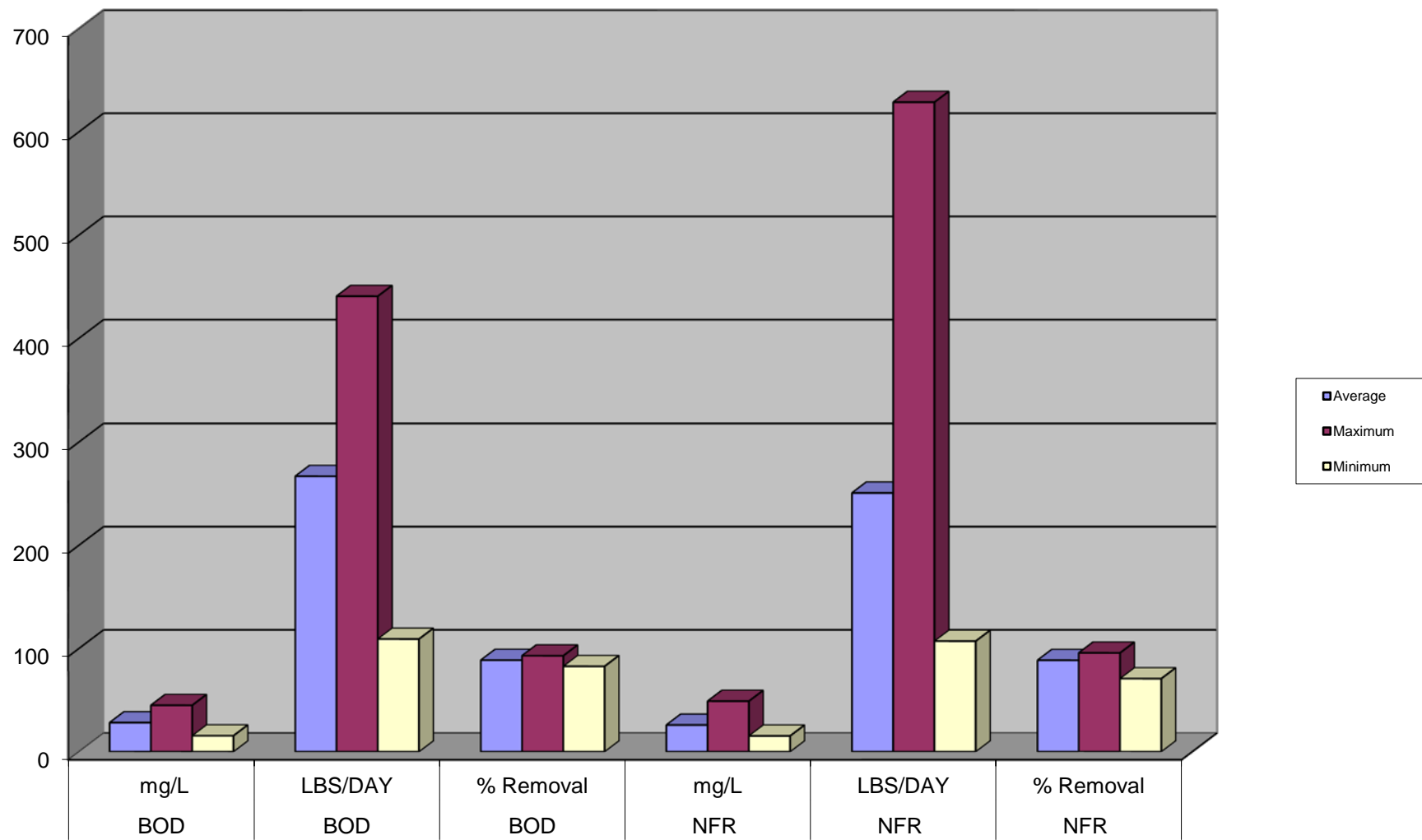
Monthly Avg.Monthly Avg.Monthly Avg.Monthly Avg.Monthly Avg.Monthly Avg.

2012 BOD & NFR 30 Day Average						
Average, Maximum and Minimum Totals						
Month	BOD mg/L	BOD lbs/day	BOD % Removal	TSS mg/L	TSS lbs/day	TSS % Removal
January	33	441	83	49	629	71
February	37	328	87	39	347	85
March	18	191	91	28	277	85
April	21	243	89	20	234	87
May	16	109	93	16	107	93
June	22	151	93	21	141	93
July	20	188	91	15	141	96
August	26	232	90	17	150	93
September	30	230	90	19	147	93
October	32	273	90	22	200	91
November	39	403	85	34	338	88
December	45	413	83	32	296	87
Average	28	267	89	26	251	89
Maximum	45	441	93	49	629	96
Minimum	16	109	83	15	107	71

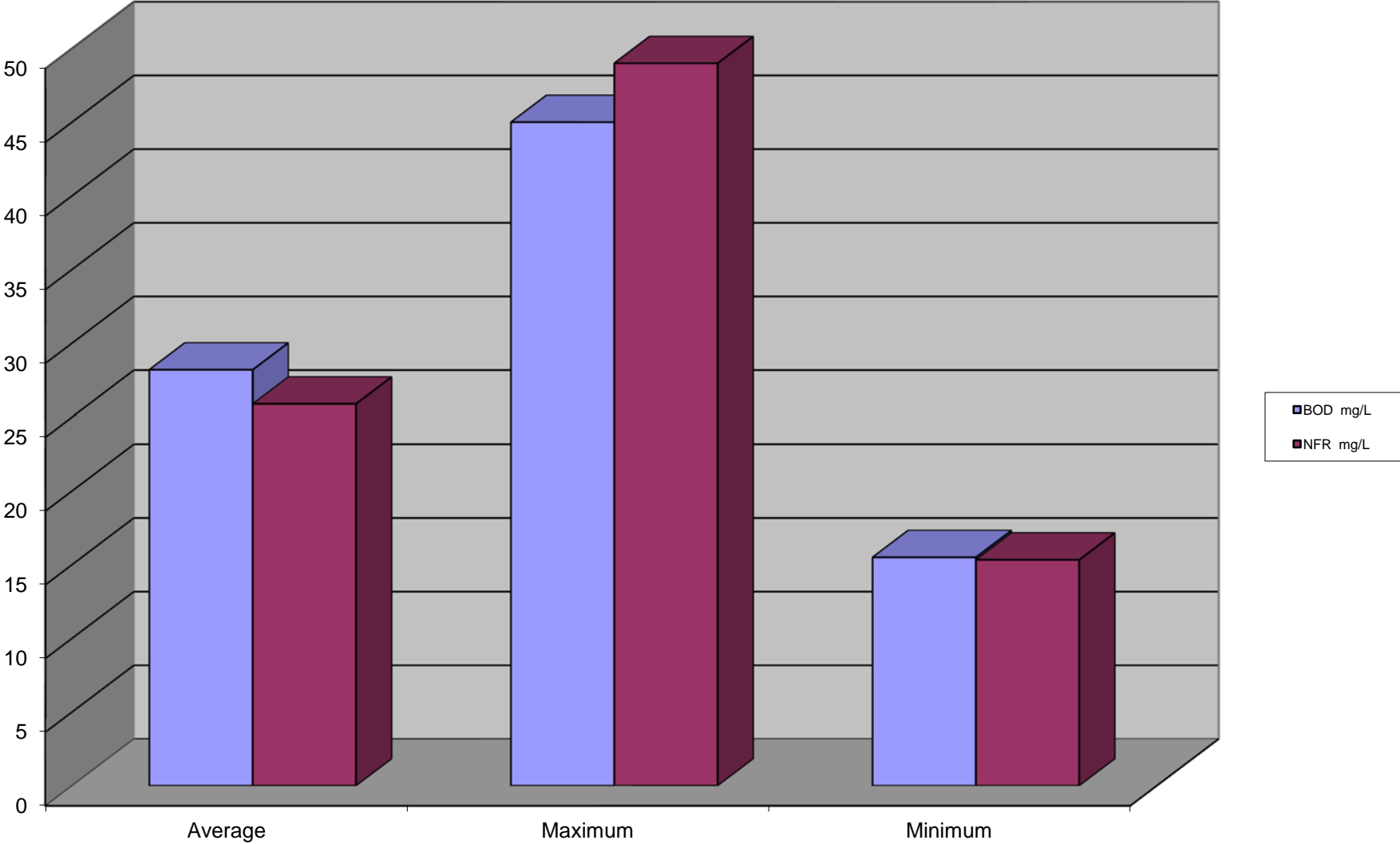
BOD & NFR 30 DAY AVERAGE LBS/DAY



30 Day BOD & NFR
Maximum, Minimum, and Average



BOD & NFR 30 DAY AVERAGE mg/L



McKinleyville Community Services District
Wastewater Management Facility
2012 Influent, Terminal Pond, and Effluent BOD

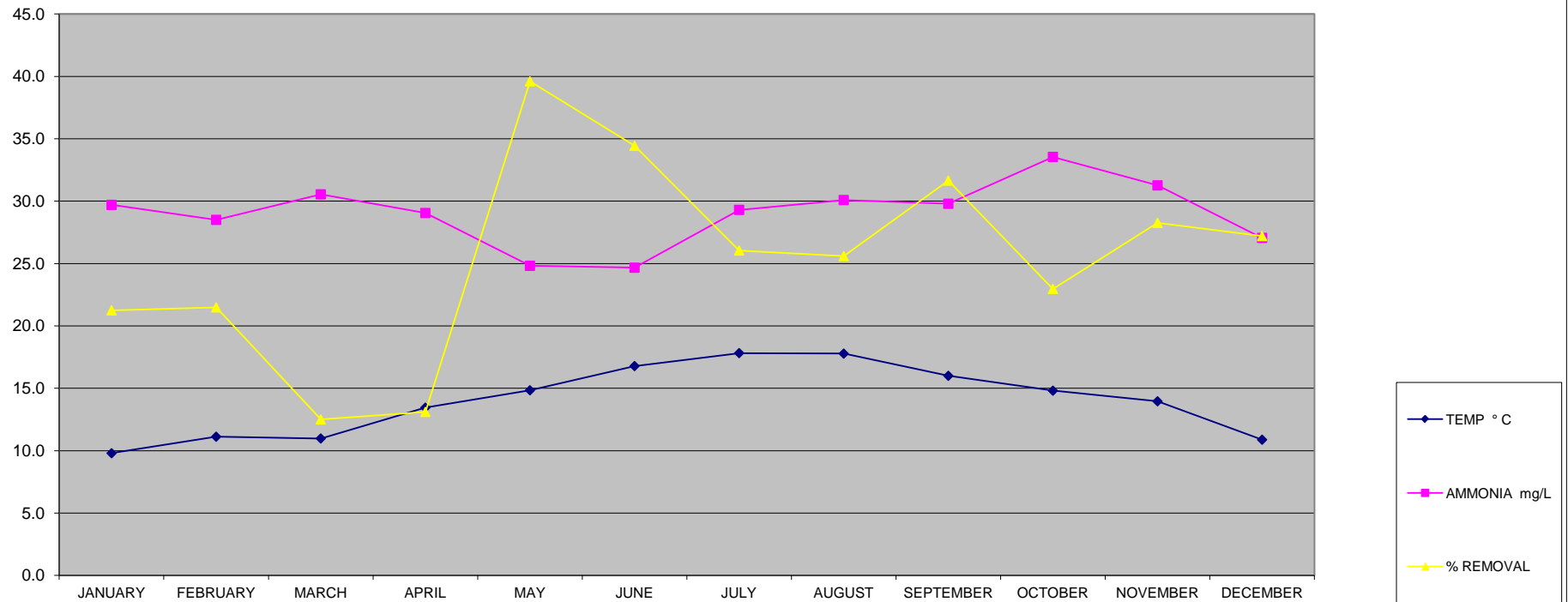
MONTH	INFLUENT	EFFLUENT	POND 4	POND 5
	BOD	BOD	BOD	BOD
January	1/6/2012 260	16		33
	1/13/2012 240	31		48
	1/20/2012 150	25		45
	1/27/2012 180	60	86	
February	2/3/2012 290	25		32
	2/10/2012 270	48		52
	2/17/2012 280	47		57
	2/24/2012 260	28		42
March	3/2/2012 230	17		33
	3/9/2012 230	18		26
	3/16/2012 210	17		27
	3/23/2012 180	20		33
	3/30/2012 200	20		30
April	4/6/2012 180	27		32
	4/13/2012 180	17		26
	4/20/2012 160	20		32
	4/27/2012 280	20		33
May	5/4/2012 240	14		32
	5/11/2012 200	20		38
	5/18/2012 260	13		43
	5/25/2012 210	15		43
June	6/1/2012 230	20		34
	6/8/2012 310	20		61
	6/15/2012 370	21		36
	6/22/2012 330	18		18
	6/29/2012 320	32		42
July	7/6/2012 320	21		67
	7/13/2012 290	20		44
	7/20/2012 160	22		46
	7/27/2012 320	19		56
August	8/3/2012 270	24		120
	8/10/2012 270	30		110
	8/17/2012 230	28		72
	8/24/2012 270	26		140
	8/31/2012 300	28		100
September	9/7/2012 300	25		99
	9/14/2012 270	27		140
	9/21/2012 340	40		180
	9/28/2012 270	26		59
October	10/5/2012 320	32		140
	10/12/2012 400	33		72
	10/19/2012 280	28		50
	10/26/2012 310	34		57
November	11/2/2012 430	33		51
	11/9/2012 310	31		39
	11/16/2012 250	44		47
	11/21/2012 250	44		34
	11/30/2012 200	44		33
December	12/7/2012 240	52		31
	12/14/2012 280	45		29
	12/21/2012 260	41		30
	12/28/2012 270	42		37
Average	263	28	86	55
Maximum	430	60	86	180
Minimum	150	13	86	18

McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITIES INFLUENT & EFFLUENT
AVERAGE AMMONIA, TEMPERATURE, pH, CALCULATED UN-IONIZED NH₃

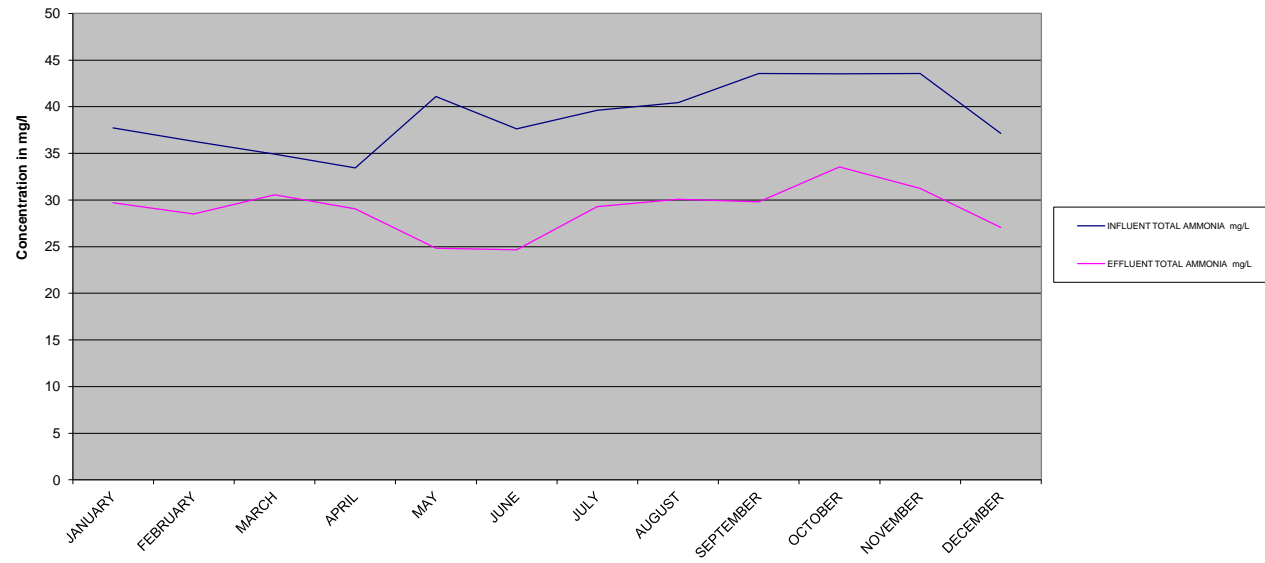
ANNUAL MONTHLY AVERAGE 2012

DATE	pH	TEMP ° C	INFLUENT TOTAL AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	pH	TEMP ° C	EFFLUENT TOTAL AMMONIA mg/L	UN-IONIZED NH ₃ (mg/L)	% REMOVAL
JANUARY	8.0	14.8	38	1.404	7.0	9.8	30	0.076	21
FEBRUARY	8.0	15.1	36	1.527	7.1	11.1	29	0.099	21
MARCH	7.9	13.9	35	1.138	6.8	11.0	31	0.055	13
APRIL	7.6	14.7	33	0.475	6.8	13.4	29	0.060	13
MAY	7.9	16.3	41	1.324	6.5	14.8	25	0.060	40
JUNE	7.8	17.5	38	1.123	6.9	16.8	25	0.077	34
JULY	7.6	18.3	40	0.884	6.8	17.8	29	0.092	26
AUGUST	7.7	18.9	40	1.234	6.9	17.8	30	0.112	26
SEPTEMBER	7.9	18.8	44	1.773	6.9	16.0	30	0.088	32
OCTOBER	7.8	18.3	44	1.595	6.9	14.8	34	0.100	23
NOVEMBER	7.9	17.5	44	1.558	7.0	14.0	31	0.112	28
DECEMBER	7.7	15.4	37	0.849	7.2	10.9	27	0.120	27
AVERAGE	7.8	16.6	39.1	1.240	6.9	14.0	29.0	0.088	25
MAXIMUM	8.0	18.9	43.6	1.773	7.2	17.8	33.5	0.120	40
MINIMUM	7.6	13.9	33.4	0.475	6.5	9.8	24.7	0.055	13

Relationship Between Temperature and Removal of Monthly Averages



Average Total Ammonia



McKINLEYVILLE COMMUNITY SERVICES DISTRICT
MONITORING WELL DATA 2012

Location	W-001		W-002		W-006		W-007		W-008		W-009		W-014		W-015		W-016	
Quarter	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS	Nitrate	TDS
January	16	210	8.3	130	19	260	21	210	20	240	25	280	0.58	89	ND	820	ND	5900
April	4.9	110	3.4	91	18	240	21	230	3.2	96	14	160	0.88	130	0.35	820	ND	6300
July	3.8	120	5.5	120	19	270	17	220	4.5	110	13	190	2.3	84	ND	1300	ND	6400
October	5.9	100	6.2	97	25	260	21	210	11	130	22	220	1.9	54	ND	640	ND	3800
AVERAGE	7.7	135.0	5.9	109.5	20.3	257.5	20.0	217.5	9.7	144.0	18.5	212.5	1.4	89.3	0.4	895.0	ND	5600.0
MAXIMUM	16.0	210.0	8.3	130.0	25.0	270.0	21.0	230.0	20.0	240.0	25.0	280.0	2.3	130.0	0.4	1300.0	ND	6400.0
MINIMUM	3.8	100.0	3.4	91.0	18.0	240.0	17.0	210.0	3.2	96.0	13.0	160.0	0.6	54.0	0.4	640.0	0.0	3800.0

McKinleyville Community Services District
River Monitoring 2012

Upstream R-001											
Month	Date	Time	CFS	Temp	pH	D.O.	NTU	Conductivity	Ammonia	Hardness	TDS
January	1/12/2012	15:25	948	10.1	8.1	13.3	1.45	115.3	ND	N/A	270
February	2/14/2012	09:05	9202	10.9	7.6	11.1	45.6	71.1	ND	58	90
March	3/14/2012	09:55	3520	10.7	8.6	10.9	28.3	77.8	ND	54	87
April	4/11/2012	9:55	6950	10.7	8.6	10.9	28.3	77.8	ND	46	80
May	5/3/2012	14:35	1100	13.1	8.4	10.2	7.22	72	ND	45	69
June	6/11/2012	10:30	262	17.7	8.3	9.8	1.12	129.4	ND	N/A	93
July	7/16/2012	9:30	76	19.5	8.3	9.9	1.48	159.2	ND	N/A	120
August	8/16/2012	14:55	57	21.7	8.2	8.7	0.58	209	ND	N/A	140
September	9/13/2012	14:15	51	20.7	8.3	8.6	1.25	184.1	ND	N/A	140
October	10/10/2012	11:15	43	14.8	8.1	9.3	1.16	170.3	ND	N/A	140
November	11/7/2012	09:15	70	15.4	8	10.7	0.54	144.1	ND	56	120
December	12/20/2012	08:15	2500	9.7	8.3	11.7	36.3	54	ND	50	84
Average				14.58	8.23	10.43	12.78	122.01	ND	51.50	119.42
Maximum				21.7	8.6	13.3	45.6	209.0	ND	58.0	270.00
Minimum				9.7	7.6	8.6	0.5	54.0	ND	45.0	69.00

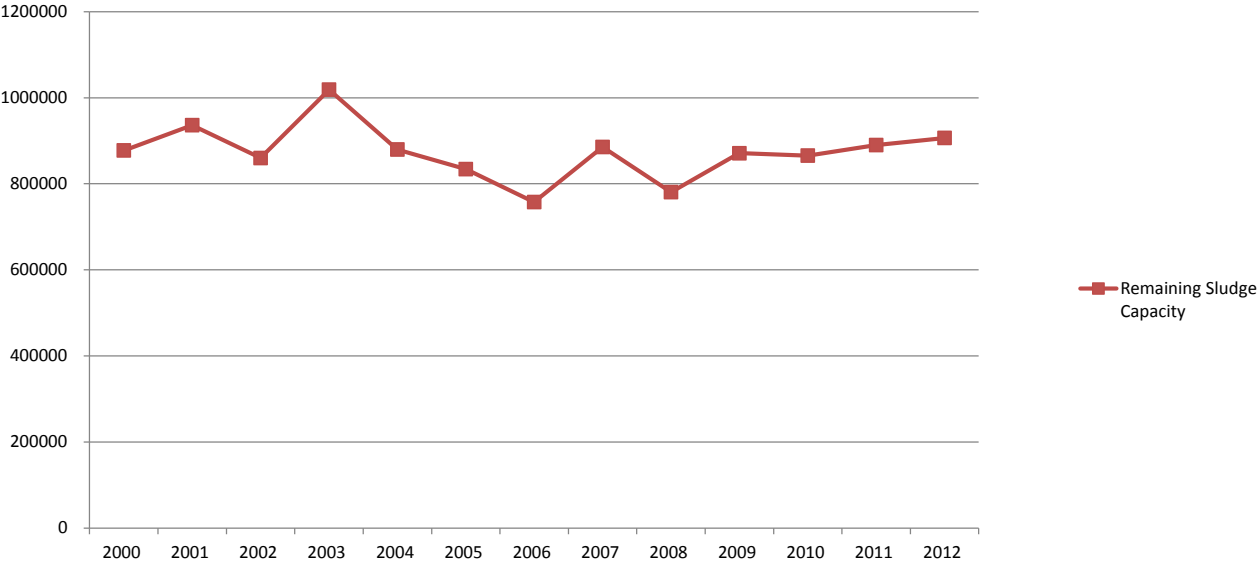
Downstream R-002												
Month	Date	Time	CFS	Temp	pH	D.O.	NTU	Conductivity	Ammonia	Hardness	TDS	VISUAL IMPACT ON RIVER
January	1/12/2012	15:05	948	9.5	7.9	12	1.59	128.4	ND	N/A	130	No Visual Impact Observed
February	2/14/2012	09:20	9202	10.4	7.6	10.5	48.6	69.6	ND	55	91	No Visual Impact Observed
March	3/14/2012	09:40	3520	11.3	8.4	10.9	29	87.6	0.37	52	86	No Visual Impact Observed
April	4/11/2012	9:40	6950	11.3	8.4	10.9	29	87.6	0.27	48	83	No Visual Impact Observed
May	5/3/2012	14:20	1100	13.7	8.1	10	7.66	81.5	0.61	48	70	No Visual Impact Observed
June	6/11/2012	10:10	262	17.5	8.1	8.3	1.2	151.6	ND	N/A	110	Not Discharging
July	7/16/2012	9:40	76	19.9	8.1	9.3	89	163.3	ND	N/A	130	Not Discharging
August	8/16/2012	15:10	57	19.7	7.9	9.2	2.23	1116	ND	N/A	770	Not Discharging
September	9/13/2012	14:25	51	20.7	7.9	9.3	0.72	1108	ND	N/A	140	Not Discharging
October	10/10/2012	10:50	43	14.1	7.3	9	1.62	1472	ND	N/A	1200	Not Discharging
November	11/7/2012	09:35	70	15.1	7.7	10.6	0.93	167.2	ND	64	140	No Visual Impact Observed
December	12/20/2012	08:30	2500	9.5	8.2	11.8	37.9	56.4	0.33	51	79	No Visual Impact Observed
Average				14.39	7.97	10.15	20.79	390.77	0.40	53.00	252.42	
Maximum				20.7	8.4	12.0	89.0	1472.0	0.6	64.0	1200.00	
Minimum				9.5	7.3	8.3	0.7	56.4	0.3	48.0	70.00	

WWMF M-001											
Month	Date	Time	CFS	Temp	pH	D.O.	NTU	Conductivity	Ammonia	Hardness	TDS
January	1/12/2012	16:00	948	10.8	7.2	3.8	103	414.0	25	N/A	270
February	2/14/2012	09:45	9202	12	6.9	5	103	392	18	N/A	260
March	3/14/2012	10:25	3520	13.2	7.1	4.2	38.7	353	23	N/A	240
April	4/11/2012	10:25	6950	13.2	7.1	4.2	38.7	353	15	N/A	230
May	5/3/2012	1500	1100	15.3	7	2.8	47.3	319	20	N/A	210
June	6/11/2012	10:45	262	16.2	6.9	5.6	134	347	19	N/A	220
July	7/17/2012	10:15	76	17.6	7	3.6	117	372	22	N/A	280
August	8/16/2012	1550	57	19.8	7	4.1	160	454	26	N/A	290
September	9/13/2012	11:45	51	16.2	7	3.3	133	418	20	N/A	290
October	10/10/2012	09:00	43	15.2	7.0	2.9	125	417	21	N/A	280
November	11/7/2012	10:40	70	15.3	6.9	3.7	176	408	24	N/A	300
December	12/20/2012	9:15	2500	8.8	7.2	4	128	284	31	N/A	240
Average				14.47	7.03	3.93	108.64	377.58	22.00	0.00	259.17
Maximum				19.8	7.2	5.6	176.0	454.0	31.0	0.0	300.00
Minimum				8.8	6.9	2.8	38.7	284.0	15.0	0.0	210.00

FEBRUARY 2011

POND 1 A				POND 1 B			
	CENTER	SOUTH	NORTH		CENTER	SOUTH	NORTH
1	12	18	12		11	13	11
2	12	36	11		10	10	10
3	9	29	10		8	8	15
4	10	30	11		7	8	18
5	9	26	10		9	8	18
6	9	28	3		7	10	18
7	9	18	10		8	9	18
8	7	17	24		7	8	20
9	9	12	17		8	9	13
10	9	14	13		8	8	18
11	9	13	11		7	10	17
12	10	15	10		8	10	14
13	12	12	11		7	10	7
14	9	12	12		8	9	12
15	11	11	13		7	10	11
16	11	11	15		9	11	12
17	10	12	12		9	11	17
18	15	13	12		7	11	7
19	12	12	16		12	8	10
20	12	10	13		10	6	10
21	10	10	12		8	9	7
22	11	24	14		8	8	6
23	13	12	14		11	11	10
24	18	14	16		14	11	14
AVERAGE	11	17	13		9	9	13
MAXIMUM	18	36	24		14	13	20
M N M U M	7	10	3		7	6	6
ALL				POND A POND B			
AVERAGE	ALL	12		AVERAGE	13	10	
MAXIMUM	ALL	36		MAXIMUM	26	16	
M N M U M	ALL	3		M N M U M	7	6	
POND 1A	142,303	CUFT	AVERAGE POND 1A =		1.1 Ft.DEPTH		
POND 1B	86,670	CUFT	AVERAGE POND 1B =		0.9 Ft.DEPTH		
TOTAL 228,973 CUFT							
CAPACITY POND A = 634,415 CUFT POND B = 501,225 CUFT							
REMAINING POND A = 492,112 CUFT POND B = 414,555 CUFT							
TOTAL SLUDGE CAPACITY 1,135,640 CUFT							
TOTAL REMAINING SLUDGE CAPACITY 906,667 CUFT							

Remaining Sludge Capacity in cuft.



McKinleyville Community Services District
Wastewater Management Facility
Pond Ammonia Levels in mg/L
Annual Averages 2012

Date		Pond A	Pond B	Pond 2	Pond 3	Pond 4	Pond 5
January		31	31	30	32	32	34
February		27	27	26	25	27	27
March		27	26	28	29	31	32
April		24	24	24	26	28	29
May		28	24	27	29	29	31
June		23	22	22	24	23	26
July		25	28	27	30	30	32
August		28	26	26	28	28	33
September		28	31	30	27	31	31
October		32	33	33	31	32	33
November		31	32	33	33	31	32
December		29	30	29	29	28	30
Average		28	28	28	28	29	31
Minimum		23	22	22	24	23	26
Maximum		32	33	33	33	32	34

McKinleyville Community Services District
Wastewater Management Facility
Pond Temperatures in C
Annual Averages 2012

								Average
Date		Pond A	Pond B	Pond 2	Pond 3	Pond 4	Pond 5	Pond Temp.
January		11.0	11.0	10.6	10.3	9.9	9.5	10.4
February		12.1	12.1	12.1	11.8	11.5	11.0	11.7
March		12.3	12.3	12.3	12.0	11.6	11.2	12.0
April		14.9	15.0	15.2	15.1	14.7	13.8	14.8
May		17.8	17.7	18.1	18.1	17.5	15.8	16.7
June		19.2	19.2	19.5	19.4	18.8	17.2	18.9
July		19.4	19.4	19.8	19.4	18.8	17.8	19.1
August		19.3	19.6	19.8	19.3	18.6	17.8	19.1
September		17.5	17.6	17.7	17.3	16.6	15.9	17.1
October		16.6	16.6	16.5	16.3	15.8	15.1	16.1
November		15.0	15.0	14.8	14.5	14.1	13.9	14.5
December		11.5	11.4	11.2	10.8	10.5	9.7	10.8
Average		15.5	15.6	15.6	15.3	14.9	14.1	
Minimum		11.0	11.0	10.6	10.3	9.9	9.5	
Maximum		19.4	19.6	19.8	19.4	18.8	17.8	

McKinleyville Community Services District
Wastewater Management Facility
Pond pH

Annual Averages 2012

Annual Averages 2012								Average
Date		Pond A	Pond B	Pond 2	Pond 3	Pond 4	Pond 5	Pond pH
January		7.4	7.4	7.4	7.4	7.4	7.3	7.4
February		7.3	7.3	7.4	7.4	7.4	7.3	7.3
March		7.3	7.3	7.3	7.4	7.3	7.2	7.3
April		7.2	7.4	7.5	7.6	7.3	7.1	7.4
May		7.5	7.6	7.7	7.7	7.2	7.0	7.4
June		7.5	7.2	7.7	7.7	7.2	7.0	7.4
July		7.6	7.6	7.8	7.7	7.2	7.0	7.5
August		7.6	7.6	7.7	7.6	7.1	7.0	7.4
September		7.5	7.6	7.6	7.5	7.2	7.0	7.4
October		7.4	7.5	7.5	7.6	7.4	7.3	7.5
November		7.5	7.5	7.6	7.5	7.3	7.3	7.5
December		7.4	7.4	7.4	7.4	7.3	7.3	7.3
Average		7.4	7.4	7.6	7.5	7.3	7.1	
Minimum		7.2	7.2	7.3	7.4	7.1	7.0	
Maximum		7.6	7.6	7.8	7.7	7.4	7.3	

McKinleyville Community Services District

Wastewater Management Facility

Pond Dissolved Oxygen in mg/L

Annual Averages 2012

								Average
Date		Pond A	Pond B	Pond 2	Pond 3	Pond 4	Pond 5	Pond D.O.
January		2.4	2.5	3.1	3.2	2.3	2.0	2.6
February		5.1	5.4	5.9	5.8	4.9	4.5	5.3
March		4.5	4.4	4.9	4.5	2.9	2.4	3.9
April		5.5	6.3	8.0	6.2	2.9	2.0	5.1
May		4.5	6.5	7.8	8.4	3.4	1.6	5.4
June		4.7	5.5	6.0	7.1	3.4	1.3	4.7
July		4.1	2.0	6.4	6.1	3.5	1.9	4.0
August		3.5	3.3	5.0	4.9	2.6	1.3	3.4
September		3.1	2.8	5.2	5.0	2.7	1.6	3.4
October		2.9	2.4	3.5	3.6	2.7	1.1	2.7
November		4.1	3.5	5.7	4.2	3.5	1.4	3.7
December		3.4	3.4	4.4	5.1	3.4	1.9	3.6
Average		4.0	4.0	5.5	5.4	3.2	1.9	
Minimum		2.4	2.0	3.1	3.2	2.3	1.1	
Maximum		5.5	6.5	8.0	8.4	4.9	4.5	

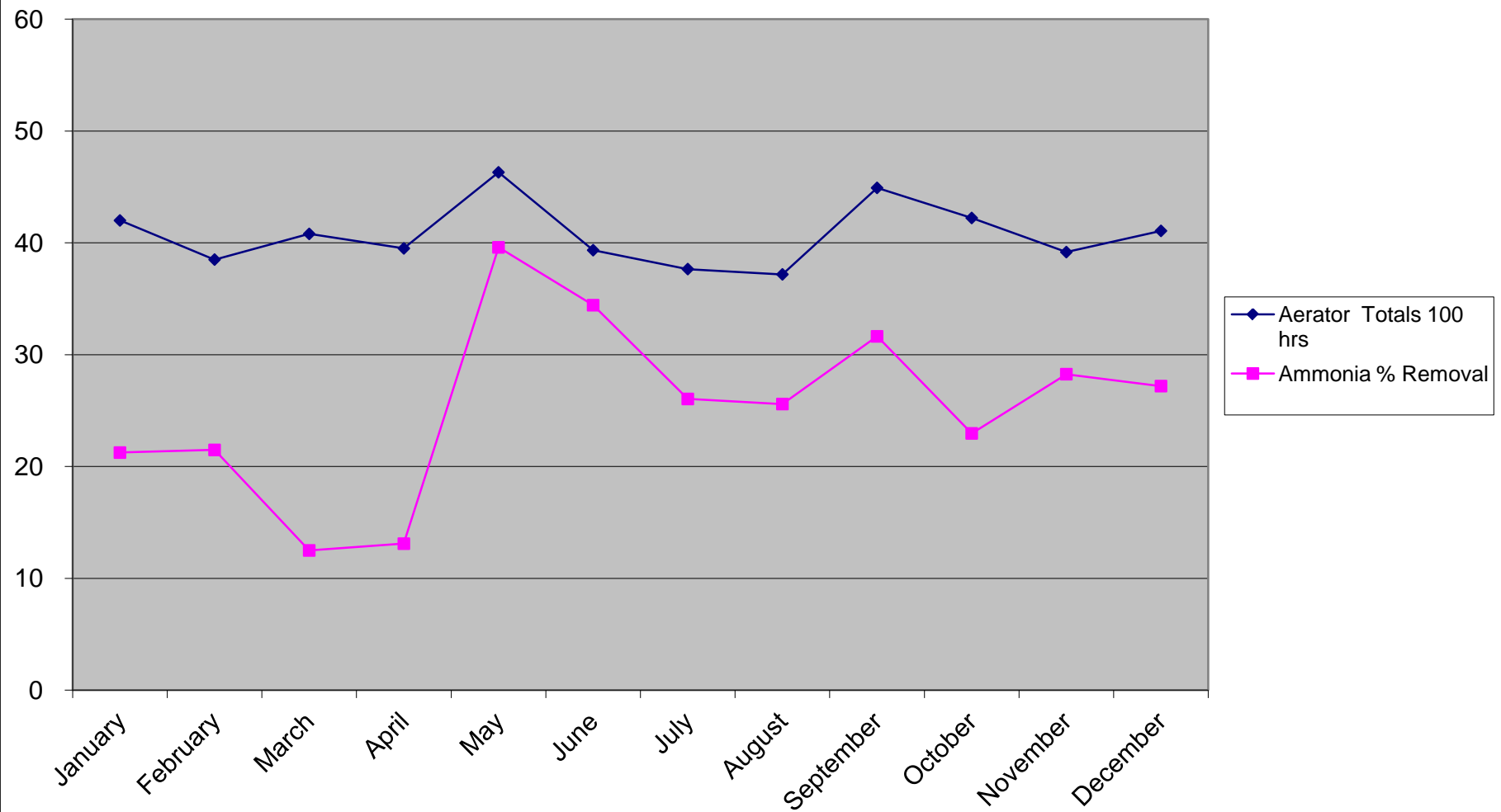
McKinleyville Community Services District
Wastewater Management Facility
Pond Depths, Elevation in Feet Above Sea Level
Annual Averages 2012

Annual Averages 2012								Average
Date		Pond A	Pond B	Pond 2	Pond 3	Pond 4	Pond 5	Pond Depth
January		62.9	62.9	62.1	61.8	61.2	60.8	61.9
February		62.1	62.1	61.5	61.1	60.8	59.9	61.2
March		62.5	62.5	61.7	61.3	61.0	60.6	61.6
April		63.0	63.0	62.3	61.7	61.0	60.2	61.9
May		62.4	62.4	61.7	61.3	60.9	60.6	61.6
June		62.6	62.6	61.8	61.6	61.2	60.8	61.8
July		62.8	62.8	62.0	61.8	61.4	61.0	62.0
August		62.5	62.5	61.6	61.4	61.2	60.7	61.6
September		62.6	62.6	61.5	61.3	61.2	60.9	61.7
October		62.7	62.7	61.9	61.7	61.5	61.2	62.0
November		62.5	62.5	62.1	61.8	61.6	61.2	61.9
December		62.5	62.6	62.0	61.6	61.4	60.9	61.8
Average		62.6	62.6	61.8	61.5	61.2	60.7	
Minimum		62.1	62.1	61.5	61.1	60.8	59.9	
Maximum		63.0	63.0	62.3	61.8	61.6	61.2	

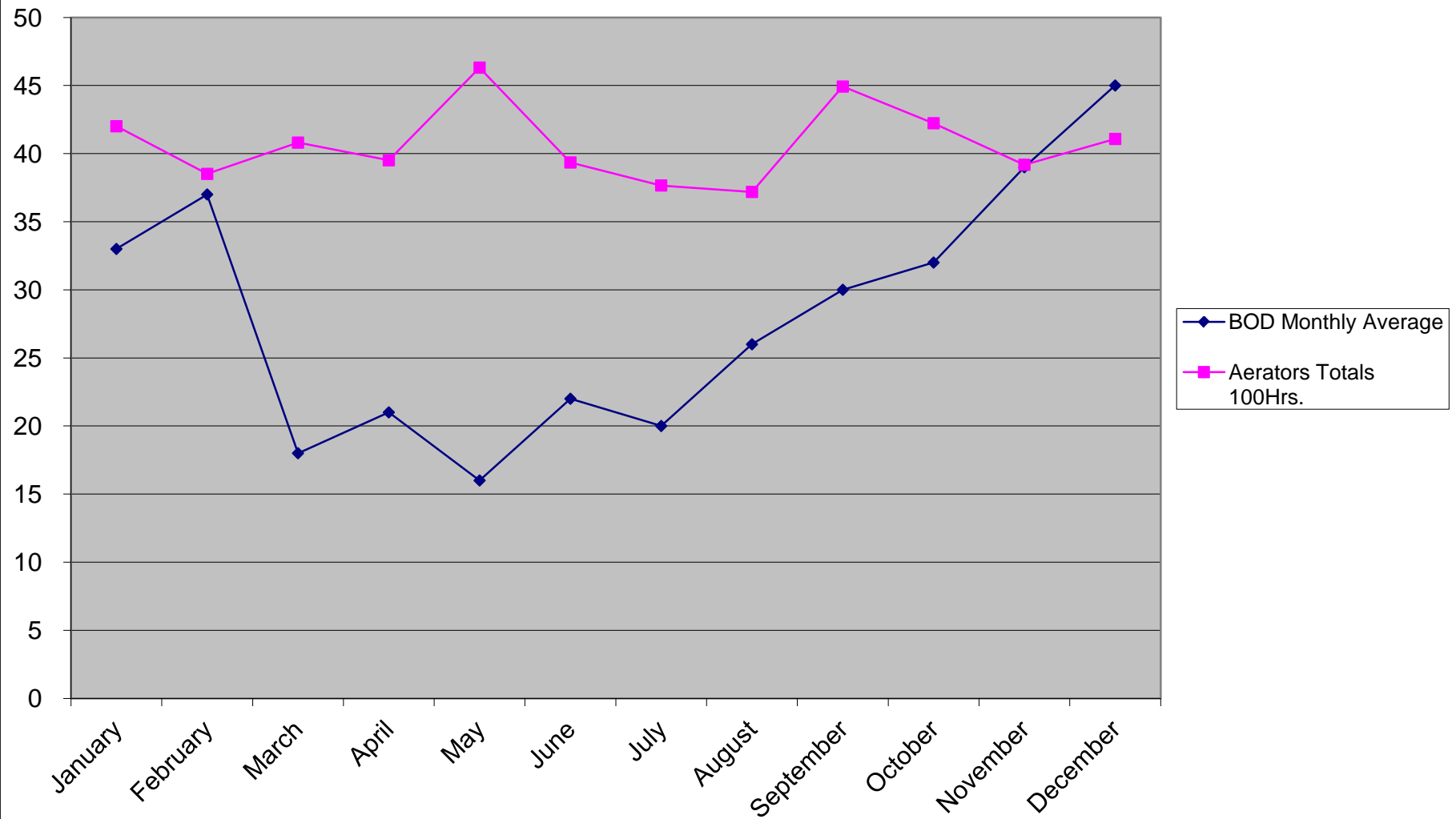
McKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
ANNUAL TOTAL AERATOR HOURS 2012

DATE	Pond A					Pond B					Pond		TOTALS
	1A	2A	3A	4A	5A	1B	2B	3B	4B	5B	2-A	3-A	
January	151.4	255.7	130.4	152.8	740.5	190.9	282.8	496.8	180.5	558.4	531.4	529.3	4200.9
February	141.0	241.1	120.1	148.1	683.1	157.3	250.5	455.8	151.0	517.3	493.7	492.0	3851.0
March	143.0	255.6	128.3	151.4	739.1	135.3	246.9	497.3	134.7	553.7	536.8	528.6	4080.7
April	148.8	257.8	127.3	151.3	715.7	135.3	243.9	482.2	127.2	536.1	513.7	511.7	3951.0
May	263.0	451.1	132.0	371.2	740.5	154.5	259.5	503.5	136.1	558.9	531.5	529.5	4631.3
June	0.0	307.3	130.3	172.4	706.9	166.3	280.0	482.3	137.3	533.6	513.1	505.5	3935.0
July	94.1	280.5	129.8	162.3	739.9	158.1	247.9	500.5	133.2	558.7	233.2	527.9	3766.1
August	141.1	259.6	127.9	144.2	740.6	136.7	246.8	492.1	131.1	558.8	210.5	529.3	3718.7
September	217.1	257.2	317.9	223.1	717.7	215.3	238.6	560.0	121.8	600.1	510.9	512.6	4492.3
October	142.9	258.7	250.1	149.4	726.8	141.8	234.7	542.4	134.7	584.6	527.7	529.3	4223.1
November	142.0	241.9	126.1	144.8	717.6	135.1	228.1	482.6	134.0	541.2	511.4	513.1	3917.9
December	146.0	254.8	148.9	146.8	740.5	138.6	249.0	502.9	131.6	568.5	539.3	540.8	4107.7
TOTAL	1730.4	3321.3	1869.1	2117.8	1865.2	3008.7	3008.7	5998.4	1653.2	6669.9	5653.2	6249.6	48875.7
AVERAGE	144.2	276.8	155.8	176.5	155.4	250.7	250.7	499.9	137.8	555.8	471.1	520.8	4073.0
MAXIMUM	263.0	451.1	317.9	371.2	215.3	282.8	282.8	560.0	180.5	600.1	539.3	540.8	4631.3
MINIMUM	0.0	241.1	120.1	144.2	135.1	228.1	228.1	455.8	121.8	517.3	210.5	492.0	3718.7

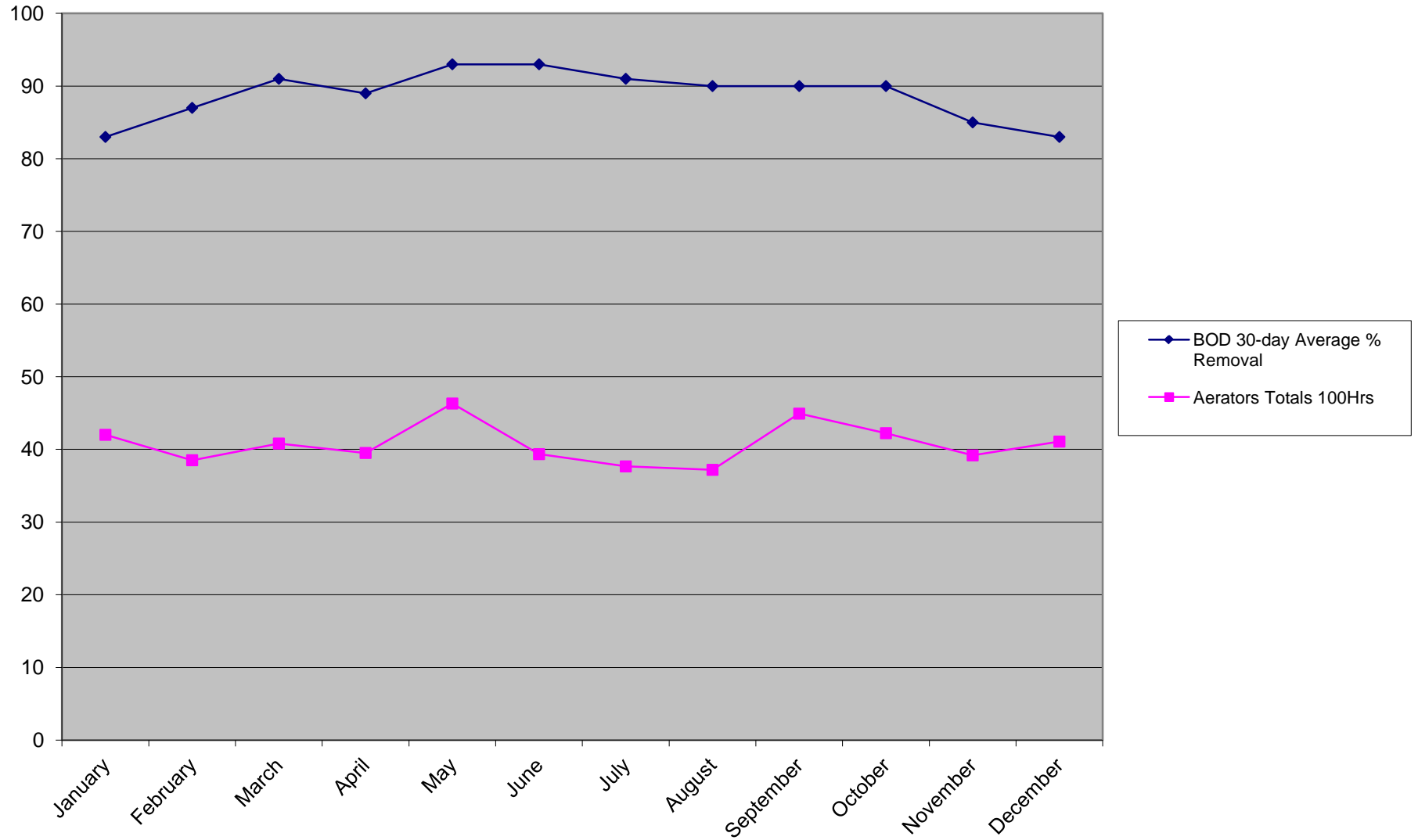
Aerator Hours Versus Ammonia Percent Removal



Aerator Hours Versus Effluent BOD



Aerator Hours Versus BOD 30-day Average % Removal



MCKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER MANAGEMENT FACILITY
ELECTRIC, CL₂, SO₂, WATER and RAIN DATA
ANNUAL 2012

DATE	PG&E kw Hours	CL ₂ USAGE lbs.	SO2 USAGE lbs.	RAIN inches
JANUARY	28240	4205	647	12.8
FEBRUARY	16320	4645	905	2.9
MARCH	20240	6738	1316	10.3
APRIL	18560	6082	1638	7.5
MAY	24800	3461	688	1.2
JUNE	25200	1601	0	2.0
JULY	23840	2257	0	1.3
AUGUST	25320	1652	0	0.1
SEPTEMBER	26080	1241	0	0.0
OCTOBER	26960	1725	0	6.0
NOVEMBER	25120	2380	335	9.7
DECEMBER	21040	1570	1004	16.1

TOTAL	281720	37557	6533	69.9
AVERAGE	23477	3130	544	5.83
MAXIMUM	28240	6738	1638	16.10
MINIMUM	16320	1241	0	0.00

WWMF WATER METER			
DATE	LOW	HIGH	CU.FT.
START	27344	40677	
END	31924	72992	

SPECIAL TESTING

DATE	INFLUENT			EFFLUENT		
	TKN	ALKALINITY	NITRATE	TKN	ALKALINITY	NITRATE
1/6/2012	44	240	ND	31	200	ND
1/13/2012	56	300	ND	31	200	ND
1/20/2112	47	230	ND	32	180	ND
1/27/2012	56	210	ND	32	190	ND
2/3/2012	43	210	ND	28	200	ND
2/10/2012	69	260	ND	31	180	ND
2/17/2012	50	210	ND	31	180	ND
2/24/2012	56	200	ND	33	180	ND
3/2/2012	56	240	ND	28	180	ND
3/9/2012	42	230	ND	27	180	ND
3/16/2012	40	180	ND	28	150	ND
3/23/2012	53	200	ND	29	160	ND
3/30/2012	34	140	ND	23	130	ND
4/6/2012	46	200	ND	25	150	ND
4/13/2012	33	170	0.17	24	150	ND
4/20/2012	38	190	ND	21	130	ND
4/27/2012	37	220	ND	20	140	ND
5/4/2012	48	220	ND	24	130	ND
5/11/2012	63	240	ND	25	150	ND
5/18/2012	47	190	ND	19	150	ND
5/25/2012	49	270	ND	23	150	ND
6/1/2012	47	240	ND	28	160	ND
6/8/2012	57	250	ND	27	170	ND
6/15/2012	25	250	ND	26	180	ND
6/22/2012	40	220	ND	19	170	ND
6/29/2012	64	270	ND	24	170	ND
7/6/2012	49	260	ND	22	180	ND
7/13/2012	38	280	ND	17	190	ND
7/20/2012	44	240	ND	25	200	ND
7/27/2012	75	310	ND	36	200	ND
8/3/2012	39	230	ND	20	200	ND
8/10/2012	74	300	ND	40	210	ND
8/17/2012	46	210	ND	25	210	ND
8/24/2012	63	290	ND	35	220	ND
8/31/2012	45	230	ND	30	220	ND
9/7/2012	75	290	ND	37	210	ND
9/14/2012	69	270	ND	31	210	ND
9/21/2012	74	310	ND	32	210	ND
9/28/2012	74	350	ND	16	210	ND
10/5/2012	59	230	ND	26	220	ND
10/12/2012	55	260	ND	30	220	ND
10/22/2012	55	250	ND	33	230	ND
10/26/2012	75	320	ND	33	220	ND
11/2/2012	45	240	ND	34	220	ND
11/9/2012	68	250	ND	39	220	ND
11/16/2012	88	290	ND	56	230	ND
11/21/2012	70	300	ND	30	200	ND
11/30/2012	54	250	ND	31	190	ND
12/7/2012	56	240	ND	30	200	ND
12/14/2012	43	210	ND	30	200	ND
12/21/2012	37	170	ND	29	180	ND
12/28/2012	45	200	0.17	29	170	ND