2014 IP Stormwater Monitoring Implementation Plan

The IP monitoring year will be from April 1, 2014 to November 30, 2014.

Work Orders

a) Sampler activation will be conducted so that samplers will be activated starting in March, 2014.
b) Weather permitting; samplers will be stood-down for the winter beginning min-November, 2014, to be completed by the end of December 2014.
c) Work orders authorize and document all activities conducted to fulfill requirements of the IP and will be issued only by Associate Directorate for Environmental Programs (ADEP).
d) Work orders for routine monitoring activities are generated with a blanket field team lead (FTL) memo authorizing work orders at the beginning of the monitoring year. These include:
    a. Sampler inspections based on triggering precipitation and flow potential at each SMA - Table-1
    b. Sampler inspections based on time period with no inspections
    c. Sampler inspections during battery preventative maintenance
    d. Sampler inspections to investigate samplers that attempt but fail to collect water.
    e. Sampler inspections following storms with more than 1.5" precipitation in 24 hours that do not generate measurable discharge at SMAs with high flow potential
    f. Approximately 100 solar panels will be installed on SMA samplers to boast battery voltage and perhaps reduce battery replacement times during the year.

Precipitation

a) Samplers are associated to rain gages (RG) using the Thiessen polygon method – Table-1
b) Precipitation measurements (along with flow potential at a sampler described below) at the RG for each Thiessen polygon will be used to determine if samplers within that polygon require inspection based on a rain event.

> Part I.D.3 The Permittees may take meteorological information from the nearest meteorological tower or automated rain gage.

Routes

a) Each Sampler is assigned to a "Route" by the subcontractor – Table-1
b) Work orders include the Route to facilitate efficient distribution of work orders, efficient travel within a route, and equitable distribution of work between crews.

Expected Discharge

a) A flow potential is assigned to each Site Monitoring Area (SMA) based on its potential to generate measurable discharge
b) Samplers are inspected based on precipitation at the associated RG and flow potential.
c) Samplers at all SMAs are inspected if rainfall at the associated RG exceeds 0.25"/30min intensity.

Sampler Activation

a) Sampler Installation, Activation, and Verification at all SMAs in corrective action monitoring (CAM) and extended baseline monitoring (MEx) by April 30, 2014, on a schedule determined by the subcontractor.
    a. SMAs in baseline monitoring as of April 1, 2014, are identified in Table-1: SMA Stage = MEx

b. SMAs in corrective action monitoring as of April 1, 2014, are identified in Table-1: SMA Stage = CAM3 (for High Priority Sites (HPS)) or CAM5 (for Moderate Priority Sites (MPS)).
c. SMAs in sampling for No-Exposure as of April 1, 2014, are identified in Table 1: SMA Stage = Corrective Action Complete with certificate of no-exposure (CACompC)

b) SMA in corrective action planning as of April 1, 2014, are identified in Table -1 where the SMA Stage = CAI or CAI2. Following certification of installation of corrective action controls or measures during the monitoring year, the SMA stage will be updated to CAM3, CAM5, or CACompC on a case by case basis. Monitoring plans for these SMAs will be entered into EIM and samplers will be installed and activated.
c) Samplers will not be installed or activated at SMAs where sampling is complete and no further monitoring is required. These SMAs will be identified as being in one of four stages:
    a. where corrective action is complete through certification of results below TALs after installation of enhanced controls (CACompA),
    b. total retention (CACompB),
    c. corrective action complete under the consent order (CACompD), or
    d. results below TALs during baseline monitoring (BCComp).
d) Each type of SMA compliance stage is identified and described in Table-2.

Sampler Inspection Frequency

Routine sampler inspections will occur for the following reasons:

a) Rain event exceeding the 24-hour precipitation total or 30-minute maximum intensity triggering threshold given in Table-1,
b) Storm with more than 1.5" precipitation in 24 hours that do not generate measurable discharge at SMAs with high flow potential,
c) Preventative maintenance battery replacement every 90 days , unless newly installed solar panels allow for longer replacement time intervals.
d) Sampler is triggered without measurable discharge, or
e) No inspection within last 30 days.

To ensure inspections are performed at least monthly, once an inspection is performed, a new inspection work order is generated with a due date 30 days later. When any of reasons a – d occur, a list of locations requiring inspections is provided to notify the field crew to use the outstanding work order.

Number of samples to fulfill monitoring requirements

a) Collect 1 confirmation sample to fulfill baseline confirmation monitoring at locations where no samples have been collected (Sampling Event = MEx).
b) Collect 2 confirmation samples to fulfill Corrective Action following certification of installation of enhanced corrective action controls (Sampling Event = CAM3/5 Sample 1 &CAM3/5 Sample 2).
c) Collect 1 informational sample to fulfill Corrective Action following certification of installation of measures to totally eliminate exposure of pollutants to stormwater (Sampling Event = CACompC)

Part I.E.5(d) If, during any period in which 2 confirmation samples are required, only one confirmation sample could be collected from a measurable storm event, compliance with applicable target action levels for that particular Site or Sites will be determined by the single confirmation sample result.

d) Collect 0 confirmation samples to fulfill Corrective Action following certification of installation of measures to totally retain discharges of stormwater.
e) Collect 0 confirmation samples to fulfill Corrective Action following receipt of Certificate of Completion under NMED's Consent Order.
f) Collect 2 confirmation samples if Sites for which monitoring has ceased exhibit signs of contaminated runoff.

Removing Samplers following sample collection

a) Remove sampler after first set of validated "fully-compliant" analytical results are received at locations in baseline monitoring
b) Remove sampler after second set of validated "fully-compliant" analytical results received at locations in corrective action confirmation monitoring of enhanced controls.
c) Remove sampler after first informational sample collected.
d) Remove sampler if Certificate of Completion received from NMED for all sites within an SMA

Analytes Monitored

a) Monitor all IP Appendix B suites during baseline monitoring. Table-8 includes all applicable Parameters and Analysis Groups
b) Monitor only analytes with TAL exceedances following installation of enhanced CA controls unless erosion is occurring at the SMA. If erosion is occurring then reinitiate monitoring all IP Appendix B suites.
c) Monitor only analytes with TAL exceedances following installation of measures to totally eliminate exposure of pollutants to stormwater for 1 informational sample unless erosion is occurring at the SMA. If erosion is occurring then reinitiate monitoring all IP Appendix B suites.
d) If copper or zinc is monitored then include the BLM suite listed in Table-8 in the EIM Sampling Plan.
e) The BLM suite will include temperature using the Hobo data logger in a sacrificial sample bottle in selected sampling locations.

Part I.E.5.(a) If installation of control measures at a particular Site does not involve soil disturbance, the Permittees may choose to monitor only those pollutants for which previous monitoring data, including samples collected under the 2005 Federal Facility Compliance Agreement (FFCA), demonstrates an exceedance of the applicable target action levels as listed in Section C of this Permit.

HPS SMAs

a) SMAs associated with High Priority Sites are provided in Table-3
b) If a sample at a HPS SMA was collected prior to September 30, 2012 then per E.1(d) Permittee must certify completion of corrective action at the HPS by October 31, 2014
c) If a sample collects at a HPS SMA after September 30, 2012 then per E.1(d) Permittee must certify completion of corrective action within 1 year of the first successful confirmation sampling event.
d) Deadlines for completion of corrective action are listed in Table-3.

Establishing Sample Collection Date

a) Confirmation samples are collected on day 0
b) The first day eligible for collection of a 2nd confirmation sample is day 15, and is noted on the work order.

c) Table-4 provides recommended actions for delaying or shutting down samplers following the collection of the 1st confirmation sample when 2 confirmation samples are required.
d) Samplers collecting analytes with 7-day holding time are noted on work order

Establishing Minimum/Maximum Volumes for Confirmation Sample

a) Minimum volumes are volumes for each analytical suite sufficient to perform all required analyses and obtain detection limits below Permit required minimum quantification levels (MQLs) or Target Action Levels (TALs)
b) Maximum volumes are volumes for each analytical suite to prevent generation of waste.
c) Table-5 provides maximum and minimum volumes for each IP analytical suite.

> Part III.C. 5: Monitoring must be conducted according to test procedures approved under 40 CFR Part 136.

Establish Bottle Configuration

a) Allowed bottle types in Table-5
b) Allowed lid types in Table-5
c) Bottle configuration in 12-bottle carousel (12c) and 24-bottle carousel (24c) samplers
    a. "12c- 6 glass/6 poly" if analysis of organic compounds including dioxins, semivolatile compounds, pesticides PCBs or high explosives is required
    b. "24c- 24 1L poly wedge" if analysis of inorganic compounds including radionuclides, metals, and cyanide is required.

Establish ISCO Programming and Configuration

a) Work orders indicate "Time with Toggle and Reset"
b) ISCO setup (3700) and operation is presented in EP-DIV-SOP-10008
c) Configuration (3700) Table-6
d) Program (3700) Table-7

Sampler Maintenance

a) Follow-on maintenance following inspection in presented in EP-DIV-SOP-10008
b) Maintenance during inspection is presented inEP-DIV-SOP-10013

> Part 1.G.2 Adverse weather events shall be documented and maintained with the SDPPP. Adverse weather conditions include dangerous weather-related events (e.g., flooding, wildfires,

Documenting inspection delays

a) Red flag conditions
b) Access denied
c) Adverse weather
d) Lightening stand-down
e) Endangered species restrictions

Training for inspectors for ISCO Operation, Inspection and Sample Retrieval will take place in June

Establish ISCO actuator trip level

a) Trip level set by field crew during ISCO Setup EP-DIV-SOP-10008
b) Trip level verified by second party during ISCO Verification EP-DIV-SOP-10008
c) Verified trip levels published on each work order

Documentation of Preservation and Filtration

a) Date/time/initials of initiation of cooling EP-DIV-SOP-10013
b) Date/time/initials of initiation of filtration EP-DIV-SOP-10013
c) Date/time/initials of initiation of chemical preservation EP-DIV-SOP-10013

Condition Resulting in Update of Sample Usage Code from compliance (COMP) to investigation (INV)

a. Holding time exceeded
b. Incomplete sample volume
c. Non-representative sample
d. Sample collected less than 15 days after last confirmation sample
e. Sample collected >1 hr following beginning of discharge

Part I.D.3. Grab samples shall be taken when discharge occurs. Samples must be collected beginning within the first 30 minutes of (or as soon after as practical, but beginning no later than 1 hour after) a measurable storm event. Samples shall not be used if the collected volume of sample is insufficient to perform all required analyses. Samples from the same SMA shall be at least 15 days apart.

Table-1

SMA Flow Potential and Triggers for Sampler Inspection

SMA	Flow Potential	24Hr Precip Trigger	30 Min Max Intensity Trigger	Rain Gage	Route	Monitoring Status	SMA Stage
2M-SMA-1	RG121.9	H	0.25	0.1	2	n/a	CAI2
2M-SMA-1.42	RG-TA-06	NF-L	1.5	0.25	5	Collect 2 Samples	CAM5
2M-SMA-1.43	RG-TA-06	NF	1.5	0.25	5	n/a	CAI
2M-SMA-1.44	RG-TA-06	NF	1.5	0.25	5	Collect Sample 2	CAM5
2M-SMA-1.45	RG-TA-06	L-M	1.0	0.25	5	Collect 2 Samples	CAM5
2M-SMA-1.5	RG-TA-06	L	1.0	0.25	5	Collect 1 Sample	MEx
2M-SMA-1.65	RG-TA-06	NF	1.5	0.25	5	Collect Sample 2	CAM5
2M-SMA-1.67	RG-TA-06	L	1.0	0.25	5	Collect 1 Sample	MEx
2M-SMA-1.7	RG-TA-06	H	0.25	0.1	2	Collect 2 Samples	CAM5
2M-SMA-1.8	RG-TA-06	H	0.25	0.1	2	n/a	CAI
2M-SMA-1.9	RG121.9	M	0.75	0.2	2	n/a	CAI
2M-SMA-2	RG121.9	H	0.25	0.1	2	n/a	CAI2
2M-SMA-2.2	RG121.9	H	0.25	0.1	2	n/a	CAI
2M-SMA-2.5	RG-TA-06	NF	1.5	0.25	5	n/a	BCComp
2M-SMA-3	RG-TA-06	M	0.75	0.2	5	n/a	CAI
3M-SMA-0.2	RG-TA-06	NF	1.5	0.25	5	Collect 1 Sample	MEx
3M-SMA-0.4	RG262.4	L	1.0	0.25	5	n/a	CAI
3M-SMA-0.5	RG262.4	M	0.75	0.2	5	Collect 1 Sample	MEx
3M-SMA-0.6	RG245.5	M	0.75	0.2	5	Collect 1 Sample	MEx
3M-SMA-2.6	RG245.5	L-M	1.0	0.25	2	Collect 1 Sample	MEx
3M-SMA-4	RG245.5	M	0.75	0.2	2	Collect 1 Sample	MEx
ACID-SMA-1.05	RG055.5	L	1.0	0.25	2	n/a	BCComp
ACID-SMA-2	RG055.5	H	0.25	0.1	2	n/a	CAI
ACID-SMA-2.01	RG055.5	NF-L	1.5	0.25	2	Collect 1 Sample	MEx
ACID-SMA-2.1	RG055.5	H	0.25	0.1	2	n/a	CAI
A-SMA-1.1	RG267.4	M	0.75	0.2	4	Collect 1 Sample	MEx
A-SMA-2	RG267.4	M	0.75	0.2	4	n/a	CAI
A-SMA-2.5	RG265	NF	1.5	0.25	4	Collect 1 Sample	MEx
A-SMA-2.7	RG265	NF-L	1.5	0.25	4	Collect Sample 2	CAM5
A-SMA-2.8	RG265	NF	1.5	0.25	4	Collect 1 Sample	MEx
A-SMA-3	RG265	H	0.25	0.1	4	n/a	CAI
A-SMA-3.5	RG340	NF	1.5	0.25	4	n/a	BCComp
A-SMA-4	RG340	L	1.0	0.25	4	Collect 1 Sample	MEx
A-SMA-6	RG340	M	0.75	0.2	4	n/a	CAI
B-SMA-0.5	RG-TA-53	L	1.0	0.25	2	n/a	CAI
B-SMA-1	RG055.5	M	0.75	0.2	2	n/a	CAI
CDB-SMA-0.15	RG200.5	L-M	1.0	0.25	3	Collect 1 Sample	MEx
CDB-SMA-0.25	RG245.5	L	1.0	0.25	3	n/a	CAI2
CDB-SMA-0.55	RG245.5	L	1.0	0.25	3	n/a	CAI
CDB-SMA-1	RG245.5	L	1.0	0.25	3	Collect Sample 2	CAM5
CDB-SMA-1.15	RG245.5	L	1.0	0.25	3	Collect 1 Sample	MEx
CDB-SMA-1.35	RG245.5	L	1.0	0.25	3	Collect 1 Sample	MEx
CDB-SMA-1.54	RG245.5	M	0.75	0.2	3	Collect 1 Sample	MEx
CDB-SMA-1.55	RG245.5	NF	1.5	0.25	3	Collect 1 Sample	MEx

SMA	Flow Potential	24Hr Precip Trigger	30 Min Max Intensity Trigger	Rain Gage	Route	Monitoring Status	SMA Stage
CDB-SMA-1.65	RG245.5	L	1.0	0.25	3	Collect 1 Sample	MEx
CDB-SMA-4	RG-TA-54	H	0.25	0.1	3	n/a	CAI
CDV-SMA-1.2	RG253	L	1.0	0.25	4	n/a	BCComp
CDV-SMA-1.3	RG253	L	1.0	0.25	4	n/a	CAI
CDV-SMA-1.4	RG253	M	0.75	0.2	4	n/a	CAI
CDV-SMA-1.45	RG253	L	1.0	0.25	4	Collect 2 Samples	CAM5
CDV-SMA-1.7	RG253	L-M	1.0	0.25	4	n/a	CAI
CDV-SMA-2	RG257	L-M	1.0	0.25	4	n/a	CAI
CDV-SMA-2.3	RG257	H	0.25	0.1	4	Collect 1 Sample	MEx
CDV-SMA-2.41	RG257	L	1.0	0.25	4	n/a	CAI
CDV-SMA-2.42	RG257	M	0.75	0.2	4	n/a	CAI
CDV-SMA-2.5	RG257	H	0.25	0.1	4	n/a	BCComp
CDV-SMA-2.51	RG257	M	0.75	0.2	4	n/a	CAI
CDV-SMA-3	RG257	NF-L	1.5	0.25	5	Collect 2 Samples	CAM5
CDV-SMA-4	RG257	L	1.0	0.25	5	Collect 1 Sample	MEx
CDV-SMA-6.01	RG257	L-M	1.0	0.25	5	Collect 1 Sample	MEx
CDV-SMA-6.02	RG257	NF	1.5	0.25	5	Collect Sample 2	CAM5
CDV-SMA-7	RG257	M	0.75	0.2	5	n/a	CAI
CDV-SMA-8	RG262.4	M	0.75	0.2	5	Collect 1 Sample	MEx
CDV-SMA-8.5	RG262.4	NF	1.5	0.25	5	Collect 1 Sample	MEx
CDV-SMA-9.05	RG262.4	NF-L	1.5	0.25	5	Collect 1 Sample	MEx
CHQ-SMA-0.5	RG340	L-M	1.0	0.25	4	Collect 1 Sample	MEx
CHQ-SMA-1.01	RG340	NF	1.5	0.25	4	Collect 1 Sample	MEx
CHQ-SMA-1.02	RG340	L-M	1.0	0.25	4	n/a	CAI2
CHQ-SMA-1.03	RG340	NF	1.5	0.25	4	n/a	CAI
CHQ-SMA-2	RG340	L	1.0	0.25	4	n/a	CAI
CHQ-SMA-3.05	RG340	L-M	1.0	0.25	4	n/a	CAI
CHQ-SMA-4	RG340	L	1.0	0.25	4	Collect 1 Sample	MEx
CHQ-SMA-4.1	RG340	M	0.75	0.2	4	n/a	CAI
CHQ-SMA-4.5	RG340	L-M	1.0	0.25	4	n/a	CAI
CHQ-SMA-5.05	RG340	M	0.75	0.2	4	Collect 1 Sample	MEx
CHQ-SMA-6	RG340	M	0.75	0.2	4	n/a	CAI
CHQ-SMA-7.1	RG340	L	1.0	0.25	4	Collect 1 Sample	MEx
DP-SMA-0.3	RG038	M	0.75	0.2	1	n/a	CAI2
DP-SMA-0.4	RG038	L	1.0	0.25	1	n/a	CAI
DP-SMA-0.6	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
DP-SMA-1	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
DP-SMA-2	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
DP-SMA-2.35	RG038	L	1.0	0.25	1	n/a	CAI
DP-SMA-3	RG038	L	1.0	0.25	1	Collect 2 Samples	CAM5
DP-SMA-4	RG-TA-53	L	1.0	0.25	1	Collect 1 Sample	MEx
F-SMA-2	RG267.4	L	1.0	0.25	5	n/a	CAI
LA-SMA-0.85	RG121.9	H	0.25	0.1	2	n/a	CAI2
LA-SMA-0.9	RG121.9	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-1	RG121.9	L	1.0	0.25	1	Collect Sample 2	CAM5
LA-SMA-1.1	RG121.9	H	0.25	0.1	2	n/a	CACompD
LA-SMA-1.25	RG121.9	H	0.25	0.1	2	n/a	CAI2

SMA	Flow Potential	24Hr Precip Trigger	30 Min Max Intensity Trigger	Rain Gage	Route	Monitoring Status	SMA Stage
LA-SMA-10.11	RG-TA-53	NF-L	1.5	0.25	3	Collect 1 Sample	MEx
LA-SMA-10.12	RG-TA-53	M	0.75	0.2	3	Collect Sample 2	CAM5
LA-SMA-2.1	RG055.5	L	1.0	0.25	1	n/a	CAI
LA-SMA-2.3	RG055.5	NF	1.5	0.25	1	n/a	CACompD
LA-SMA-3.1	RG055.5	NF	1.5	0.25	1	Collect 1 Sample	MEx
LA-SMA-3.9	RG055.5	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-4.1	RG055.5	H	0.25	0.1	1	n/a	CAI
LA-SMA-4.2	RG055.5	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-5.01	RG055.5	NF	1.5	0.25	1	Collect 1 Sample	MEx
LA-SMA-5.02	RG055.5	M	0.75	0.2	1	n/a	CACompD
LA-SMA-5.2	RG055.5	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-5.31	RG038	L	1.0	0.25	1	Collect 2 Samples	CAM5
LA-SMA-5.33	RG038	NF-L	1.5	0.25	1	n/a	CACompD
LA-SMA-5.35	RG055.5	L	1.0	0.25	1	Collect 2 Samples	CAM5
LA-SMA-5.361	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-5.362	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-5.51	RG038	M	0.75	0.2	1	n/a	CAI
LA-SMA-5.52	RG038	M	0.75	0.2	1	Collect 1 Sample	MEx
LA-SMA-5.53	RG038	NF	1.5	0.25	1	Collect 1 Sample	MEx
LA-SMA-5.54	RG038	M	0.75	0.2	1	n/a	CAI
LA-SMA-5.91	RG038	M	0.75	0.2	1	Collect Sample 2	CAM5
LA-SMA-5.92	RG038	NF	1.5	0.25	1	n/a	CAI
LA-SMA-6.25	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-6.27	RG038	M	0.75	0.2	1	Collect 1 Sample	MEx
LA-SMA-6.3	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-6.31	RG038	M	0.75	0.2	1	Collect 1 Sample	MEx
LA-SMA-6.32	RG038	NF	1.5	0.25	1	Collect 1 Sample	MEx
LA-SMA-6.34	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-6.36	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-6.38	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-6.395	RG038	L	1.0	0.25	1	n/a	CAI
LA-SMA-6.5	RG038	L	1.0	0.25	1	Collect 1 Sample	MEx
LA-SMA-9	RG-TA-53	L	1.0	0.25	1	Collect 1 Sample	MEx
M-SMA-1	RG121.9	H	0.25	0.1	2	n/a	CAI2
M-SMA-1.2	RG121.9	M	0.75	0.2	2	n/a	CAI
M-SMA-1.21	RG121.9	M	0.75	0.2	2	Collect 1 Sample	MEx
M-SMA-1.22	RG121.9	M	0.75	0.2	2	Collect Sample 2	CAM5
M-SMA-10	RG200.5	M-H	0.5	0.15	3	n/a	CAI
M-SMA-10.01	RG200.5	M	0.75	0.2	3	Collect Sample 2	CAM5
M-SMA-10.3	RG200.5	H	0.25	0.1	3	n/a	CACompD
M-SMA-11.1	RG200.5	NF	1.5	0.25	3	Collect 1 Sample	MEx
M-SMA-12	RG200.5	L	1.0	0.25	3	Collect 1 Sample	MEx
M-SMA-12.5	RG203	L	1.0	0.25	1	Collect 1 Sample	MEx
M-SMA-12.6	RG203	M	0.75	0.2	1	n/a	CAI
M-SMA-12.7	RG203	L	1.0	0.25	1	Collect 1 Sample	MEx
M-SMA-12.8	RG203	L	1.0	0.25	1	Collect 1 Sample	MEx
M-SMA-12.9	RG203	L	1.0	0.25	1	Collect 1 Sample	MEx

SMA	Flow Potential	24Hr Precip Trigger	30 Min Max Intensity Trigger	Rain Gage	Route	Monitoring Status	SMA Stage
M-SMA-12.92	RG203	L	1.0	0.25	1	Collect 1 Sample	MEx
M-SMA-13	RG203	M	0.75	0.2	1	n/a	BCComp
M-SMA-3	RG-TA-06	M	0.75	0.2	3	n/a	CAI
M-SMA-3.1	RG-TA-06	L-M	1.0	0.25	3	Collect 1 Sample	MEx
M-SMA-3.5	RG200.5	M	0.75	0.2	3	Collect 1 Sample	MEx
M-SMA-4	RG200.5	H	0.25	0.1	3	n/a	CAI
M-SMA-5	RG200.5	L-M	1.0	0.25	3	Collect 1 Sample	MEx
M-SMA-6	RG200.5	H	0.25	0.1	3	n/a	CAI
M-SMA-7	RG200.5	L	1.0	0.25	3	n/a	CAI
M-SMA-7.9	RG200.5	L	1.0	0.25	3	n/a	CAI
M-SMA-9.1	RG200.5	NF	1.5	0.25	3	Collect 1 Sample	MEx
PJ-SMA-1.05	RG240	M	0.75	0.2	5	n/a	CAI
PJ-SMA-10	RG-TA-06	L	1.0	0.25	5	Collect 1 Sample	MEx
PJ-SMA-11	RG-TA-06	L-M	1.0	0.25	5	n/a	CAI
PJ-SMA-11.1	RG-TA-06	L-M	1.0	0.25	5	n/a	CAI
PJ-SMA-13	RG245.5	NF-L	1.5	0.25	2	Collect 1 Sample	MEx
PJ-SMA-13.7	RG245.5	NF	1.5	0.25	2	Collect 2 Samples	CAM5
PJ-SMA-14	RG245.5	L	1.0	0.25	2	Collect 1 Sample	MEx
PJ-SMA-14.2	RG245.5	M	0.75	0.2	2	Collect 1 Sample	MEx
PJ-SMA-14.3	RG245.5	L	1.0	0.25	2	Collect 1 Sample	MEx
PJ-SMA-14.4	RG245.5	NF-L	1.5	0.25	2	Collect 1 Sample	MEx
PJ-SMA-14.6	RG245.5	NF	1.5	0.25	2	Collect 1 Sample	MEx
PJ-SMA-14.8	RG245.5	NF	1.5	0.25	2	n/a	BCComp
PJ-SMA-16	RG-TA-54	NF	1.5	0.25	3	n/a	BCComp
PJ-SMA-17	RG-TA-54	H	0.25	0.1	3	n/a	CAI
PJ-SMA-18	RG-TA-54	M	0.75	0.2	3	n/a	CAI
PJ-SMA-19	RG-TA-54	H	0.25	0.1	3	n/a	CAI
PJ-SMA-2	RG253	NF-L	1.5	0.25	5	Collect 1 Sample	MEx
PJ-SMA-20	RG-TA-54	H	0.25	0.1	3	Collect 1 Sample	CACompC
PJ-SMA-3.05	RG257	NF-L	1.5	0.25	5	Collect 2 Samples	CAM5
PJ-SMA-4.05	RG257	L	1.0	0.25	5	n/a	CAI
PJ-SMA-5	RG-TA-06	L	1.0	0.25	5	n/a	CAI
PJ-SMA-5.1	RG-TA-06	NF	1.5	0.25	5	Collect 2 Samples	CAM5
PJ-SMA-6	RG-TA-06	L	1.0	0.25	5	Collect 1 Sample	MEx
PJ-SMA-7	RG-TA-06	NF-L	1.5	0.25	5	Collect 1 Sample	MEx
PJ-SMA-8	RG-TA-06	L	1.0	0.25	5	Collect 1 Sample	MEx
PJ-SMA-9	RG-TA-06	L	1.0	0.25	5	Collect 1 Sample	MEx
Pratt-SMA-1.05	RG200.5	NF	1.5	0.25	1	n/a	CAI
P-SMA-0.3	RG-TA-53	L	1.0	0.25	2	n/a	CACompD
P-SMA-1	RG038	H	0.25	0.1	2	Collect 1 Sample	MEx
P-SMA-2	RG038	M	0.75	0.2	2	Collect 1 Sample	MEx
P-SMA-2.15	RG038	L	1.0	0.25	2	Collect 1 Sample	MEx
P-SMA-2.2	RG038	M	0.75	0.2	2	Collect 1 Sample	MEx
P-SMA-3.05	RG055.5	L	1.0	0.25	2	n/a	CAI
PT-SMA-0.5	RG262.4	NF	1.5	0.25	5	Collect 2 Samples	CAM5
PT-SMA-1	RG262.4	M	0.75	0.2	5	Collect 2 Samples	CAM5
PT-SMA-1.7	RG262.4	NF	1.5	0.25	5	n/a	CAI

SMA	Flow Potential	24Hr Precip Trigger	30 Min Max Intensity Trigger	Rain Gage	Route	Monitoring Status	SMA Stage
PT-SMA-2	RG262.4	L	1.0	0.25	5	Collect 1 Sample	MEx
PT-SMA-2.01	RG262.4	NF	1.5	0.25	5	Collect 2 Samples	CAM5
PT-SMA-3	RG267.4	H	0.25	0.1	5	Collect 1 Sample	MEx
PT-SMA-4.2	RG267.4	L-M	1.0	0.25	5	Collect 1 Sample	MEx
R-SMA-0.5	RG-NCOM	L	1.0	0.25	2	n/a	CACompD
R-SMA-1	RG-NCOM	H	0.25	0.1	2	n/a	CAI
R-SMA-1.95	RG038	L	1.0	0.25	2	n/a	CAI
R-SMA-2.05	RG-NCOM	L	1.0	0.25	2	Collect 1 Sample	MEx
R-SMA-2.3	RG038	L	1.0	0.25	2	n/a	BCComp
R-SMA-2.5	RG038	L	1.0	0.25	2	Collect 1 Sample	MEx
S-SMA-0.25	RG121.9	H	0.25	0.1	2	n/a (Construction in progress)	AltCompR
S-SMA-1.1	RG121.9	NF	1.5	0.25	2	Collect 2 Samples	CAM3
S-SMA-2	RG121.9	H	0.25	0.1	2	n/a (2 samples collected)	AltCompR
S-SMA-2.01	RG121.9	L	1.0	0.25	2	Collect Sample 2	CAM3
S-SMA-2.8	RG121.9	L	1.0	0.25	2	Collect 1 Sample	MEx
S-SMA-3.51	RG121.9	M	0.75	0.2	2	Collect 1 Sample	MEx
S-SMA-3.52	RG121.9	M	0.75	0.2	2	Collect 1 Sample	MEx
S-SMA-3.53	RG121.9	M	0.75	0.2	2	Collect 2 Samples	CAM3
S-SMA-3.6	RG121.9	H	0.25	0.1	2	n/a	CAI2
S-SMA-3.7	RG203	NF	1.5	0.25	3	Collect 1 Sample	MEx
S-SMA-3.71	RG203	L	1.0	0.25	3	Collect 1 Sample	MEx
S-SMA-3.72	RG203	L	1.0	0.25	3	Collect 1 Sample	MEx
S-SMA-3.95	RG203	L	1.0	0.25	3	n/a	CAI
S-SMA-4.1	RG-TA-53	L	1.0	0.25	3	n/a	CACompD
S-SMA-4.5	RG203	NF	1.5	0.25	3	Collect 1 Sample	MEx
S-SMA-5	RG-TA-53	NF	1.5	0.25	3	Collect 1 Sample	MEx
S-SMA-5.2	RG-TA-53	NF	1.5	0.25	3	Collect 1 Sample	MEx
S-SMA-5.5	RG-TA-53	L	1.0	0.25	3	Collect 1 Sample	MEx
S-SMA-6	RG-TA-53	H	0.25	0.1	3	n/a	CAI
STRM-SMA-1.05	RG240	H	0.25	0.1	5	n/a	CAI2
STRM-SMA-1.5	RG240	NF	1.5	0.25	5	Collect Sample 2	CAM5
STRM-SMA-4.2	RG240	NF	1.5	0.25	5	Collect 2 Samples	CAM5
STRM-SMA-5.05	RG240	L	1.0	0.25	5	Collect 2 Samples	CAM5
T-SMA-1	RG200.5	H	0.25	0.1	3	Collect 1 Sample	CAI/CACompC
T-SMA-2.5	RG200.5	M	0.75	0.2	3	Collect 1 Sample	MEx
T-SMA-2.85	RG200.5	M	0.75	0.2	3	n/a	CAI
T-SMA-3	RG200.5	H	0.25	0.1	3	n/a	CAI
T-SMA-4	RG200.5	M	0.75	0.2	3	n/a	CAI
T-SMA-5	RG200.5	L	1.0	0.25	3	Collect 1 Sample	MEx
T-SMA-6.8	RG200.5	NF	1.5	0.25	1	Collect 1 Sample	MEx
T-SMA-7	RG200.5	M	0.75	0.2	1	Collect 1 Sample	MEx
T-SMA-7.1	RG200.5	L	1.0	0.25	1	Collect 1 Sample	MEx
W-SMA-1	RG253	M	0.75	0.2	4	Collect Sample 2	CAM5
W-SMA-1.5	RG253	M	0.75	0.2	4	Collect 2 Samples	CAM5
W-SMA-10	RG257	L	1.0	0.25	4	Collect 2 Samples	CAM5

SMA	Flow Potential	24Hr Precip Trigger	30 Min Max Intensity Trigger	Rain Gage	Route	Monitoring Status	SMA Stage
W-SMA-11.7	RG262.4	M	0.75	0.2	4	Collect Sample 2	CAM5
W-SMA-12.05	RG262.4	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-14.1	RG262.4	M	0.75	0.2	5	Collect Sample 2	CAM5
W-SMA-15.1	RG262.4	NF	1.5	0.25	4	Collect 2 Samples	CAM5
W-SMA-2.05	RG253	L-M	1.0	0.25	4	Collect 2 Samples	CAM5
W-SMA-3.5	RG257	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-4.1	RG257	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-5	RG257	H	0.25	0.1	4	n/a	CAI
W-SMA-6	RG257	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-7	RG257	L-M	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-7.8	RG257	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-7.9	RG257	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-8	RG257	L-M	1.0	0.25	4	n/a	CAI
W-SMA-8.7	RG257	L	1.0	0.25	4	n/a	CAI
W-SMA-8.71	RG257	NF	1.5	0.25	4	Collect Sample 2	CAM5
W-SMA-9.05	RG257	L-M	1.0	0.25	4	n/a	BCComp
W-SMA-9.5	RG257	NF	1.5	0.25	4	Collect 1 Sample	MEx
W-SMA-9.7	RG257	L	1.0	0.25	4	n/a	CAI
W-SMA-9.8	RG257	L	1.0	0.25	4	Collect 1 Sample	MEx
W-SMA-9.9	RG257	L	1.0	0.25	4	Collect Sample 2	CAM5

Table-2

SMA Compliance Stages

SMA Stage	Stage Short Description	Stage Description
AltCompR	Alt Comp Requested	IP E.3(b) Alternative Compliance requested
BCComp	BC Complete	IP D4(b) All results for all pollutants of concern at SMA are at or below the TALs no further sampling is required at the SMA.
CACompC	CA Complete NoExp	IP E.2(c) Control measures installed to totally eliminate exposure of pollutants to storm water. Collect 1 informational sample.
CACompD	CA Complete COC	IP E.2(d) Site has achieved RCRA "corrective action complete" status or a Certificate of Completion under NMED's Consent Order. Collect no sample.
CAI	CA Init	IP E.1(a) Confirmation monitoring has exceeded a Target Action Level.
CAI2	CA Init 2	IP E.1(a) Confirmation monitoring has exceeded a Target Action Level. 2nd go-around.
CAM3	CA Mon 3	IP E.1(a)(b) Collect 1+ sample after completion of CA control measures at HPS site within 3 yrs of effective date of permit.
CAM5	CA Mon 5	IP E.1(a)(b) Collect 1+ sample following completion of CA control measures at MPS site within 5 years of effective date of permit.
MEx	Mon Ext	IP E.5(e) Confirmation monitoring will continue until 1 sample is collected.

Table-3

SMAs Associated with High Priority Sites (HPS)

SMA Number	Corrective Action Completion Date
CDB-SMA-4	8/27/2014
LA-SMA-2.1	10/24/2014
LA-SMA-3.1	n/a
LA-SMA-5.01	n/a
LA-SMA-5.02	11/29/2013
LA-SMA-5.51	8/21/2014
LA-SMA-5.52	n/a
LA-SMA-5.53	n/a
LA-SMA-5.54	10/24/2014
LA-SMA-6.5	n/a
M-SMA-10.3	10/30/2013
M-SMA-3.5	na
M-SMA-7.9	10/22/2014
PJ-SMA-17	9/4/2014
PJ-SMA-18	8/29/2014
PJ-SMA-19	9/11/2014
PJ-SMA-20	10/25/2013

SMA Number	Corrective Action Completion Date
Pratt-SMA-1.05	10/24/2014
P-SMA-1	n/a
P-SMA-2.2	n/a
P-SMA-3.05	10/21/2014
S-SMA-0.25	n/a
S-SMA-1.1	n/a
S-SMA-2	n/a
S-SMA-2.01	
S-SMA-3.51	n/a
S-SMA-3.52	n/a
S-SMA-3.53	n/a
S-SMA-3.6	
S-SMA-4.1	8/20/2013
S-SMA-5	n/a
S-SMA-6	
T-SMA-1	10/31/2013

Table-4
Start Time Delay for IP Confirmation Monitoring

Week #	Interval in days since the preceding sampled storm event	Days to next eligible storm event	Recommended action after retrieval of sample for IP confirmation monitoring
1	0	15	stand-down sampler
	1	14	stand-down sampler
	2	13	stand-down sampler
	3	12	stand-down sampler
	4	11	stand-down sampler
	5	10	stand-down sampler
	6	9	stand-down sampler
2	7	8	stand-down sampler
	8	7	Set 9999 Minute Delay to Start
	9	6	Set 8640 Minute Delay to Start
	10	5	Set 7200 Minute Delay to Start
	11	4	Set 5760 Minute Delay to Start
	12	3	Set 4320 Minute Delay to Start
	13	2	Set 2880 Minute Delay to Start
3	14	1	Set 1440 Minute Delay to Start
	15	0	Set 0 Minute Delay to Start

Table-5
Maximum and Minimum Sample Volumes

Analytical Suite	Minimum Volume (L)	Maximum Volume (L)	Container	Maximum Holding Time
Gross Alpha	1	2	P, FP, G	6 months
Radium-226 and Radium-228	2	4	P, FP, G	6 months
Metals incl. Mercury	0.5	1	P, FP	6 months 28 days Mercury
Cyanide, weak acid dissociable	0.5	1	P, FP, G	14 days
Total PCBs	1	3	G, FP-lined cap	1 year to extraction
Dioxin	1	3	G	1 year
Semivolatile Compounds	1	3	G, FP-lined cap	7 days to extraction
Pesticides	1	3	G, FP-lined cap	7 days to extraction
High Explosives	0.77	2.5	G, FP-lined cap	7 days to extraction
BLM(F) DOC	0.5	1	P, FP, G	28 days
BLM(F) SO4+Cl	0.5	1	P, FP, G	28 days / 28 days
BLM(UF) Alk+pH	0.5	1	P, FP, G	14 days / 15 minutes pH

Table-6
ISCO 3700 Configuration Sequence

Select Option	**Parameter**	**Time Sampling**
Set Clock	Time/ Date	[Set to MST]
Bottles and Sizes	(Portable, Refrig) Sampler	Portable
	(1,4,12,24) Bottles	12 or 24
	Bottle Volume Is	950 ml
Suction Line	Suction Line I.D. Is	3/8 inch
	Suction Line Is (Vinyl, Teflon)	Teflon
	Suction Line Length Is	X feet
Liquid Detector	(Enable, Disable) Liquid Detector	Enable
	Rinse Cycles	1
	Enter Head Manually?	No
	Retry Up To X Times When Sampling	1
Programming Mode	(Basic, Extended) Program Mode	Basic
Load Stored Program	Load Program	n/a
Save Current Program	Save Program As	n/a
Flow Mode Sampling	Take Sample At Start Time?	n/a
	Take Sample At Time Switch?	n/a
Nonuniform Time	Enter Intervals In (Clock Time, Minutes)	n/a
Calibrate Sampler	(Enable, Disable) Calibrate Sampler	Disable
Sampling Stop/Resume	(Enable, Disable) Sampling Stop/Resume	n/a
Start Time Delay	X Minute Delay To Start	(0-9999)
Enable Pin	Master/Slave Mode?	No
	Sample Upon Disable?	No
	Sample Upon Enable?	Yes
	Reset Sample Interval?	Yes
Event Mark	(Continuous Signal, Pulse)	Pulse
	At The Beginning Of (Purge, Fwd Pumping)	Purge
Purge Counts	Pre-Sample Counts	150?
	Post Sample Counts	150?
Tubing Life	# Pump Counts, Warning at #	(enter)
	Reset Pump Counter?	No
	X Pump Counts To Warning	500,000
Program Lock	(Enable, Disable) Program Lock	Disable
Sampler ID	Sampler ID Number Is	[leave blank]
Run Diagnostics (Software Revision 4.6)	Run Diagnostics	Yes
	Test distributor	Yes
	Re-initialize	No
Exit Configuration	(enter)	…Standby…

Table-7

ISCO 3700 Programming Sequence

Parameter	Time Sampling
[Switch on liquid actuator]	Reset to "Toggle/Reset"
Paced Sampling	Time
Sample Every	0 Hours, 1 Min
Multiplex Samples?	Yes
(Bottles Per Sample, Samples Per Bottle)	Bottles Per Sample
X Bottles Per Sample Event	1
Sample Volumes Of	950 ml
Enter Start Time	No
[Programming Sequence Complete]	…Standby…

Table-8

Suites, Analytical Group Names, Methods, Parameters for IP Monitoring

Suite	Analytical Group Name	Analytical Method	Parameter Code	Parameter Name
Radioactivities	SW-Ra226/Ra228	EPA:903.1	Radium-226	Ra-226
	SW-Ra226/Ra228	Generic:Radium by Calculation	Radium-226 and Radium-228	Ra-226+228
	SW-Ra226/Ra228	EPA:904	Radium-228	Ra-228
	SW-IP-Gross Alpha	EPA:900	GROSSA	Gross alpha
Metals	SW-Metals-Dissolved	EPA:200.8	Ag	Silver
	SW-Metals-Dissolved	EPA:200.8	Al	Aluminum
	SW-Metals-Dissolved	EPA:200.8	As	Arsenic
	SW-Metals-Dissolved	EPA:200.7	B	Boron
	SW-Metals-Dissolved	EPA:200.7	Ca	Calcium
	SW-Metals-Dissolved	EPA:200.8	Cd	Cadmium
	SW-Metals-Dissolved	EPA:200.8	Co	Cobalt
	SW-Metals-Dissolved	EPA:200.8	Cr	Chromium
	SW-Metals-Dissolved	EPA:200.8	Cu	Copper
	SW-Metals-Dissolved	SM:A2340B	HARDNESS	Hardness
	SW-Metals-Dissolved	EPA:200.7	Mg	Magnesium
	SW-Metals-Dissolved	EPA:200.8	Ni	Nickel
	SW-Metals-Dissolved	EPA:200.8	Pb	Lead
	SW-Metals-Dissolved	EPA:200.8	Sb	Antimony
	SW-Metals-Dissolved	EPA:200.8	Tl	Thallium
	SW-Metals-Dissolved	EPA:200.8	V	Vanadium
	SW-Metals-Dissolved	EPA:200.8	Zn	Zinc
	SW-Metals-Total	EPA:245.2	Hg	Mercury

Suite	Analytical Group Name	Analytical Method	Parameter Code	Parameter Name
	SW-Metals-Total	EPA:200.8	Se	Selenium
Cyanide	SW-IP-Cyanide	ASTM:D2036	CN(WAD)	Cyanide, weak acid dissociable
Dioxin	SW-IP-D/F-1613B	EPA:1613B	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]
Semivolatile Compounds	SW-SVOC-625	EPA:625	118-74-1	Hexachlorobenzene
		EPA:625	50-32-8	Benzo(a)pyrene
		EPA:625	87-86-5	Pentachlorophenol
Pesticides	SW-Pesticides	EPA:608	1024-57-3	Heptachlor Epoxide
		EPA:608	309-00-2	Aldrin
		EPA:608	33213-65-9	Endosulfan II
		EPA:608	50-29-3	DDT[4,4'-]
		EPA:608	5103-71-9	Chlordane[alpha-]
		EPA:608	5103-74-2	Chlordane[gamma-]
		EPA:608	57-74-9	Chlordane(alpha/gamma)
		EPA:608	58-89-9	BHC[gamma-]
		EPA:608	60-57-1	Dieldrin
		EPA:608	72-20-8	Endrin
		EPA:608	72-54-8	DDD[4,4'-]
		EPA:608	72-55-9	DDE[4,4'-]
		EPA:608	76-44-8	Heptachlor
		EPA:608	8001-35-2	Toxaphene (Technical Grade)
		EPA:608	959-98-8	Endosulfan I
PCBs	SW-PCB-1668A-PQL	EPA:1668A	1336-36-3	Total PCB
High Explosives	SW-IP-HEXP	SW-846:8321A_MOD	118-96-7	Trinitrotoluene[2,4,6-]
		SW-846:8321A_MOD	121-82-4	RDX
BLM	SW-DOC	SW-346-9060	DOC	Dissolved Organic Carbon
	SW-SO4+Cl	EPA:300.0	Cl(-1)	Chloride
		EPA:300.0	SO4(-2)	Sulfate
	SW-IP-Ca+K+Mg+Na+Hardness	EPA:200.7	K	Potassium
		EPA:200.7	Na	Sodium
	SW-ALK+pH	EPA:310.1	ALK-CO3	Alkalinity-CO3
		EPA-310.1	ALK-CO3+HCO3	Alkalinity-CO3+HCO3
		EPA:150.1	pH	Acidity or Alkalinity of a solution
	Temperature	?	?	?