1.0 INTRODUCTION

This Sampling and Analysis Plan (SAP) describes the sampling and analysis methods that will be affiliated with the collection of water quality samples for the State of Colorado during the 2015 fiscal year (July 1, 2014 to June 30, 2015).

The Water Quality Control Division’s (Division) Quality Management Plan (QMP) states that the quality assurance and quality control program will be implemented through the mandatory use of smaller Sampling and Analysis Plans, which are originated for program-specific projects, under the umbrella of a more comprehensive, long-term Quality Assurance Project Plan (QAPP). In this case, the project is the Division’s Surface Water Monitoring Plan.

The Environmental Data Unit is charged with and endeavors to collect scientifically sound water quality monitoring data on behalf of the Division’s Clean Water Program. This data and information is used by multiple units within the Division’s Clean Water Program to inform water quality decisions related to the 303(d) and Monitoring & Evaluation (M&E) lists, the biennial 305(b) report, standards development, Total Maximum Daily Load (TMDL) development, non-point source management, compliance and enforcement justification, permitted discharges, stormwater systems, and emerging water quality issues.

Although the data usage is varied internally across the Clean Water Program, this monitoring data is chiefly used in the development and revisions of standards and criteria or performing assessments that determine attainment of the aforementioned standards and criteria, including reporting the status of water quality across Colorado.

2.0 BACKGROUND

The Environmental Data Unit’s overarching objectives are to collect, assess, and report data regarding the chemical, physical and biological integrity of the State’s surface waters for the Federal Clean Water Act (CWA) 303(d) list of impaired waters and the 305(b) report of status of water quality in Colorado as the Environmental Protection Agency’s (EPA) Integrated Report.
The Environmental Data Unit is also responsible for cooperatively designing and managing monitoring and assessment systems and models to support and inform environmental policy and regulatory decision making across the Division’s Clean Water Program; collecting and analyzing chemical and biological samples in the field; preparing samples for laboratory analysis; ensuring that analytical results are properly entered into an information management system; and ensuring that all environmental information collected by the unit is uploaded into the Environmental Protection Agency’s (EPA) STORET\(^1\)/WQX\(^2\) database.

In support of these objectives, the Environmental Data Unit maintains a network of statewide monitoring sites, including trend and synoptic study sites, for collecting chemical, physical, and biological data. Each year additional sites are added within the framework of a five year rotating basin approach in order to collect supplementary data to support future basin-specific rulemaking hearings conducted by the Water Quality Control Commission (WQCC).

3.0 TECHNICAL APPROACH

The Division will use the water quality data collected in the 2015 fiscal year to address multiple technical and assessment needs across the Division’s Clean Water Program work units, including the Restoration & Protection, Environmental Data, Compliance and Enforcement, Permits and Standards Units. This information will be used to assess water quality condition and inform decisions related to the 303(d) list of impaired waters, 305(b) report, table standards and site-specific standards review, temperature UAA’s, future nutrient criteria refinement, emerging organic compounds, and permit limitations.

Under this SAP, river and stream monitoring activities will be primarily focused in the San Juan and Gunnison River basins to support the rulemaking hearing for these basins in June 2017. However, monitoring activity will also continue throughout the State, but at a slightly diminished frequency outside of these two basins.

3.1 SAMPLING GOALS AND OBJECTIVES

The goals and objectives specific to this SAP are as follows:

- Collect water quality data at trend sites to track underlying patterns of water quality across the State.

---

\(^1\) STOrage and RETrieval  
\(^2\) Water Quality Exchange
• Collect water quality data, including *E. coli* samples, at sites located on waterbody segments that are currently on the State’s M&E list for one or more parameters to support decision making regarding WQCC Regulation 93.

• Collect water quality data at sites with recent TMDL or Non-Point Source involvement to evaluate the post-remedial success of those activities. These sites fall into the monitoring category of “Success Stories”.

• Collect water quality data concurrent with biological and physical monitoring in multiple basins to support decision making regarding WQCC Policy 10-1, WQCC Policy 98-1 and WQCC Regulation 93.

• Collect water quality data at sites that bracket select wastewater facilities to support decision making regarding emerging organic compounds known as nonylphenols, which may be an endocrine disruptor. This work supports efforts in the Clean Water Program’s permits section.

• Collect water quality data concurrent with deployed temperature loggers to support decision making regarding permit limitations that are based upon ambient temperatures upstream of wastewater facilities. This work supports efforts in the Clean Water Program’s permits section.

• Collect water quality data at sites with continuing TMDL activities to inform decisions related to TMDL load allocation computations.

• Collect water quality data at sites in the San Juan and Gunnison basins to support future Nutrient Use Attainability Analysis (UAA’s) in waterbodies where phosphorus levels are naturally elevated.

• Collect water quality data at sites in the San Juan and Gunnison basins to support future Aquatic Life UAA’s in waterbodies where aquatic life could be considered “rudimentary” or non-existent.

• Collect water quality data at sites in the San Juan and Gunnison basins to support future Temperature UAA’s in waterbodies where temperature standards are open to discussion.

• Collect uranium data at multiple sites to inform decision making related to the uranium standard in select segments in the San Juan and Gunnison basins.
4.0 RESPONSIBLE AGENCY AND CONTACTS

The Environmental Data Unit will be responsible for the design, coordination and implementation of targeted, site-specific monitoring across the Division’s Clean Water Program, although it is anticipated that the Standards and Restoration and Protection units will assist with implementation, as needed. Additionally, the Environmental Data Unit will provide inclusive oversight of the Quality Assurance/Quality Control (QA/QC) affiliated with this SAP.

4.1 PROJECT COORDINATOR

Chris Theel  
Colorado Department of Public Health and Environment  
Water Quality Control Division  
Environmental Data Unit – Monitoring and Data Work Group  
303-692-3558; christopher.theel@state.co.us

5.0 DATA QUALITY OBJECTIVES

The Data Quality Objective (DQO) process is used to establish performance or acceptance criteria for data collection activities. These criteria in turn serve as the basis for designing a plan for collecting data of sufficient quality and quantity to support goals of the Division’s monitoring plan. The DQO process is systematic and begins by defining the problem and identifying the goals and objectives of the SAP. Subsequent steps identify feedback participation and measurement performance criteria. Data collection methods and the analytical approach are designed to satisfy plan goals and objectives of the SAP.

5.1 MEASUREMENT PERFORMANCE CRITERIA

A central aspect of DQO process is the documentation of the data quality indicators which specify the performance criteria and acceptance criteria for the quality of the data collected for the plan and for existing data to be included in a project.

5.1.1 PRECISION

Precision is a measure of reproducibility of test results. A series of measurements on the same sample for the same parameter is compared to the average value. Precision is estimated by means of duplicate/replicate analyses. Precision is best expressed in terms of the standard deviation or the relative percent difference (RPD) between field duplicate measurements as show below.
$$\text{RPD} = \frac{[(x_1 - x_2) / ((x_1 + x_2)/2)] \times 100}{(x_1 + x_2)/2}$$

**RPD** = relative percent difference (%)

\(x_1\) and \(x_2\) = duplicate measurements of the same parameter

The smaller the RPD, the more precise are the measurements. The usability of duplicate measurements is assessed during data validation.

The Colorado Department of Public Health and Environment’s Laboratory Service Division (LSD) is responsible for establishing measurement criteria for precision of the analytical procedures used in projects where water quality data are collected. Data for these Quality Control procedures are obtained by analyses of replicate, split and spiked samples, and blanks.

### 5.1.2 ACCURACY

Accuracy is the degree of agreement of a measurement with an acceptable reference or true value. This is accomplished by comparing a measured value to an accepted reference value in a sample of known concentration or by determining the recovery of a known concentration spiked into a sample.

\[\%R = \left\{100 \left(\frac{x_s - x_u}{K}\right)\right\} / K\]

\%R = percent recovery

\(x_s\) = measured value for spiked sample

\(x_u\) = measured value for unspiked sample

\(K\) = known value of the spike in the sample

LSD is responsible for establishing measurement criteria for accuracy of the analytical procedures used in projects where water quality data are collected. Data for these Quality Control procedures are obtained by analyses of replicate, split and spiked samples, and blanks.

### 5.1.3 COMPLETENESS

Completeness is the percentage of valid measurements or data points obtained, as a proportion of the number of measurements or data points planned for the project. Completeness is affected by such factors as sample bottle breakage and acceptance/non-acceptance of analytical results. A target of 90% completeness will be considered acceptable. To be considered complete, the data set must contain all Quality Control check analyses verifying precision and accuracy for the analytical protocol. Completeness is then determined by the following:
% Completeness = (Number of Valid Measurements / Total Number of Measurements Planned) x 100

6.0  FIELD EQUIPMENT

The following sections detail the field equipment that will be necessary to execute this SAP and calibration of equipment, as applicable, to ensure collection of defensible data.

6.1  EQUIPMENT LIST

The following field equipment is needed to complete the sampling and analysis program:

- Multi-sensor sonde and handheld device with GPS receiver
- 47 mm filter holder
- 47 mm and 0.45 µM pore size cellulose acetate membrane filters
- 47 mm and #28 pore size glass fiber “roughing” pre-filters
- Sterile plastic syringe
- Disposable forceps
- Air pump with diffuser stone
- Calibration cups (“cal cups”)
- Latex or nitrile gloves
- Indelible markers or pencils
- De-ionized water (DI)
- Field notebooks or forms
- Chain-of-custody forms
- Coolers and ice preservative
- Bucket/rope

6.2  FIELD INSTRUMENT CALIBRATION

All monitoring equipment used in the field will be maintained according to the manufacturer’s recommendations. The calibration frequency, procedures, and scheduled maintenance for field instruments are found in the Division’s Standard Operating Procedures (SOP), and equipment instruction manuals. Meters should be calibrated before use each day, and per instructions in the operations manual. Division personnel using field instruments are expected to read and be thoroughly familiar with all procedures detailed in SOPs and instruction manuals for all field instruments.

These methods are aligned with the protocols detailed in the Division’s Standard Operating Procedures for the Planning of and Field Procedures for Conducting Monitoring Activity (March 2010).
7.0 SURFACE WATER SAMPLE COLLECTION

Stream samples are collected as “grab” samples. The grab sample is collected by filling each sample bottle directly from the stream. Alternatively, a sampling container may be used to collect a large enough volume of the water to fill all sample bottles. The grab sample should be collected from the main channel thalweg (the line of fastest flow in the stream channel and often the deepest), just below the water surface. If stream conditions are unsafe for the sampler to wade into the thalweg, the grab sample may be made from the stream bank where active flow occurs or where stream flow is directed along the bank, or from a bridge using a rinsed bucket.

These methods are aligned with the protocols detailed in the Division’s *Standard Operating Procedures for the Collection of Water Samples* (March 2010).

7.1 SURFACE WATER FIELD MEASUREMENTS

Field Measurements for pH, temperature, dissolved oxygen, and specific conductance will be made at the same time when water chemistry samples are collected. These measurements can be made *in situ* (directly from the stream), or from a discrete sample collected in a container (bucket). These measurements shall be recorded using the field equipment identified in Section 6.1 of this SAP. The field measurements should follow the Division’s *Standard Operating Procedures for the Collection of Water Samples* (March 2010).

8.0 SAMPLE CONTAINERS AND PRESERVATION

The Division’s Environmental Data Unit collects routine stream water samples to be analyzed for nutrients, total recoverable and dissolved metals, neutrals (for parameters needing no preservative, or other special bottle prep), and microbiological. A sample set will include at least six sample bottles to be filled at each stream site, but may be as high as 8 bottles depending on the specific sampling location.

Samples collected shall include at a minimum, a nutrient (acid preserved), a neutral (unpreserved, non-metal), dissolved metals (filtered), and total recoverable metals, and a 50 ml centrifuge BD bottle. Additionally, as needed, samples collected shall also include an *E. coli* microbiological and a semi-volatile organic compound for nonylphenol.

1. Nutrient – 250 ml. Container identified as “Nutrient”.

   Fill with grab sample. This bottle contains acid for preserving the sample and should be handled with care. Do not rinse, and do not over-fill.
Leave approximately ½ inch headspace to allow for mixing and expansion.

2. Neutral – 250 ml. Container identified as “Neutral”.

   Fill with grab sample. Rinse with sample source water three times before collecting sample.

3. Dissolved metals (filtered) - 250 ml. Container identified as “Filtered Metals”.

   Metals bottles have been acid washed, and do not need to be rinsed with sample before filling. Samples are to be filtered through a 0.45 µM cellulose acetate filter. Pre-filters can be used. Filters and pre-filters will be wetted with D.I. water and the first 30-50 ml of sample filtered to waste before final sample is collected. Leave ½ inch headspace to allow for mixing and expansion.

4. Total Recoverable Metals (unfiltered) – 250 ml. Container identified as “Metals”.

   This sample is a grab sample. Metals bottles have been acid washed, and do not need to be rinsed with sample before filling.

5. Low Level Total Nitrogen – 125 ml. Container is unmarked.

   Fill with grab sample to ¾ mark. Rinse with sample source water three times before collecting sample. Sample is frozen upon receipt by LSD.

6. BD Centrifuge tube – 50 ml. Container identified as “BD Falcon”.

   Fill with grab sample to ¾ mark. Rinse with sample source water three times before collecting sample. Sample is frozen upon receipt by LSD.

7. *E. coli* – 100 ml. Container identified as “Microbiological”.

   These samples are grab samples. The microbiological sample bottles have been washed and sterilized, so no rinsing with sample is necessary. Fill the bottle to just below the shoulder to the “fill line”.

8. SVOC – (2) 1-liter amber glass bottles. Container identified as “SVOC”

   At each site **TWO** 1 L glass amber bottles need to be collected then preserved. Do not rinse the bottles as they already contain some preservative. Fill to the
neck, then add the full vial of acid (6 ml’s of 1:1 HCl), put the cap on and shake it a few times then fill the rest of the bottle.

Samples should be placed in a cooler and stored on ice immediately after collection for transport to LSD or other sub-contracted laboratories.

9.0 SAMPLE DOCUMENTATION AND HANDLING

The following sections describe the documentation of field activities and documentation and handling of samples detailed in the Division’s Standard Operating Procedures for the Planning of and Field Procedures for Conducting Monitoring Activity (March 2010).

9.1 FIELD DOCUMENTATION

Field notebooks, including daily field forms and photographs will be used to document field activities.

9.1.1 FIELD LOG NOTEBOOKS AND FIELD FORMS

All staff shall document all monitoring activity using standard field log notebooks, which contain pre-printed field log forms on Rite-in-the-Rain waterproof paper. Each sampling event will have its own log entry, with all pertinent data requested on the field log form provided. Each log entry will include at least the following; sample date and sample customer ID number, site number and description, sample collector’s name, site latitude and longitude and associated GPS documenting data, start/sample/end times, how and where the sample was collected, whether samples were collected directly into the sample container or poured out of a bucket, all field measurements and how the measurements were taken (e.g. directly out of the stream, out of a bucket), sample filtering information, observations and comments, and summary of QA activity, if any.

All documentation will be done at the time of sampling using the Division’s preprinted and formatted “Monitoring Field Log” notebooks (see Appendix A). Only field team members may be in custody of the notebooks during field activities. Field log entries must be dated, legible, preferably made in black indelible ink, and contain accurate documentation. Corrections to erroneous data will be made by crossing through the entry and entering the correct information. The person making the correction must initial and date where the error occurred.

9.1.2 PHOTOGRAPHS

Photographs shall be taken at each new site and include an upstream, downstream and benchmark snapshot. Photographs shall be downloaded, re-titled to identify the station
identification, waterbody and snapshot location (e.g. upstream); and stored in the Photos folder on the Division’s common “Assessment” drive.

9.2 SAMPLE LABELING

Every sample will have a unique barcode identification number. Each sample shall have a barcode generated, printed on weatherproof address labels, and affixed to the exterior of each bottle set prior to a given sample trip. Each “set” shares the same barcode.

This unique barcode identification number is an eleven digit number that is bracketed by (*) asterisks. The * character is the start and stop reading character for the barcode reader. The first four numbers of the barcode are the four digit fiscal year. The fifth number denotes the block assigned to the sampler or specific program. The remaining six numbers in the bar code are sequential numbers based on sites and site revisits within the State fiscal year. Each sampler shall be responsible for making sure that each number used in their block is unique. See example below for further details.

Example:

```
20151001-001
```

9.3 CHAIN OF CUSTODY

All samples will be submitted with a completed LSD “Request for Analytical Services” form for each sample set (see Appendix B). This form shall be considered the Division’s official Chain-of-Custody. The form shall be completed per instructions for completing the form. All requested information shall be provided. Samples are to be immediately placed in a cooler, preserved with wet ice, and delivered to LSD or other sub-contracted laboratories. Sample holding times shall be accounted for when a schedule is projected, and samples delivered to meet all holding times. If samples will be delivered on a Friday, samples should be to the lab no later than 2 p.m. to ensure proper relinquishing of samples to laboratory staff.

The “Request for Analytical Services” form shall include an affixed unique barcode identification number, station identification, waterbody and description, date and time
of sample collection, number and type of sample containers, sample media, analyses requested, sampler(s) name and affiliation, name and signature of relinquishing and receiving personnel, as well as the date and time of each custody transfer. The temperature shall be taken from a “temperature blank” within the cooler, or some other comparable means, and recorded on the form.

10.0 ANALYTICAL METHODS

Samples will be analyzed for the parameters and by the methods specified in Appendix C.

All methods of sample collection, preservation and analysis used in determining water quality will be in accordance with the test procedures identified in Section 31.16(2) of WQCC Regulation No. 31 The Basic Standards and Methodologies for Surface Waters.

11.0 QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance is a set of operating principles that, if strictly followed during sample collection and analysis, will produce data of known and defensible quality. This will ensure that the accuracy of the data can be stated with a high level of confidence. Assuring the quality of surface water data is accomplished by following standard operating procedures (e.g. observing proper sample collection techniques, proper maintenance and calibration of field meters), collecting QC samples, reviewing and analyzing QA/QC data, and making appropriate adjustments to surface water quality data collection procedures on the basis of the results of QA/QC procedures.

QA/QC procedures for the Division may be divided into three categories:

- Field procedures quality control
- Data quality control
- Laboratory quality control

11.1 FIELD QUALITY CONTROL

Standard operating procedures will be utilized as a primary tool to ensure field procedure quality control (See Appendix D for a list of SOPs). Staff performing field activities for the Program will receive the training necessary to ensure that all SOPs are fully and properly used when completing field-monitoring activity. Each project-specific SAP will describe and or reference all specific quality assurance/quality control methods to be followed. At a minimum, the following water chemistry quality control samples will be taken:
• Field duplicates
• Field blanks (also referred to as “Trip blanks”)

11.1.1 FIELD DUPLICATES

Field duplicates will be field sample replicates and will be used to determine field precision. Duplicate samples, including duplicate field measurements, are a set of similar samples collected from the same site, at about the same time, and analyzed in the same manner. Duplicate samples may be equated to “fraternal twins” in that they originate from one source but each sample may contain a slightly different chemical composition. Duplicate sample results must be compared to assure reasonable agreement. In general, the acceptable results from duplicates are a 10% difference for cations, anions, and nutrients. For total and dissolved metals, particularly when concentrations are near detection levels, a difference of 10% to 50% may be allowed, based on best professional judgment by the Division’s QA/QC Officer identified in Section 13.0 of this SAP.

Duplicate samples shall be taken and analyzed from a minimum of 10% of the total number of samples collected during the implementation of this SAP.

11.1.2 FIELD BLANKS

Field blanks help to ensure that sampling equipment, sampling containers, and de-ionized rinse water is effectively cleaned and/or free from contaminants that may be introduced into a sample via the equipment or rinse water. Field blanks, also referred to as equipment blanks, are blank solutions (solutions of DI water) that are processed through the equipment used for collecting and processing an environmental sample. Four types of surface water quality sampling equipment have blank samples taken from them:

• DI water container
• Sample container
• Filter apparatus
• Sample collection device (bucket)

All results from equipment blank samples shall be at or near the minimum reporting level (or non-detect level). Any detection of contaminants in equipment blanks shall be addressed by the Division’s QA/QC Officer and may entail modified cleaning or decontamination procedures.

Field blanks shall be collected one per “sample trip” or one per week if you are out for entire week or several days at a time.
11.2 DATA QUALITY CONTROL

Data quality control procedures and measures are grouped into four categories to be reviewed:

- Steps for measuring compliance with WQCD procedures
- LSD issues
- Bias and errors
- Additional considerations

Due to the length and complexity of this section, reference may be made to the Division’s Quality Assurance Project Plan for Surface Water Monitoring and Assessment (March 2011), which is on file with the Project Coordinator listed in Section 4.1 of this SAP. All QC data will be reviewed following completion of this SAP. If all data-acceptance criteria in the SAP are met, then the analytical data are acceptable.

11.3 LABORATORY QUALITY CONTROL

The Division will utilize LSD as the primary source of analytical services for water samples during the implementation of this SAP. The following items will be reviewed, at a minimum, to verify laboratory QA/QC:

- Verifying QA/QC with LSD personnel
- Method Detection Limits and Reporting Limits
- PQL issues
- Duplicates and blanks
- Contamination issues

If analytical services are provided by a laboratory other than LSD, the same steps will be taken, as outlined above, to verify acceptable laboratory quality control.

12.0 DATABASE MANAGEMENT

The Division uses EQuIS\(^3\) (“Environmental Quality Information System”) as the primary database for water quality data. Data management objectives and data quality objectives are discussed in the Division’s QMP and program or project specific QAPPs and other SAPs.

Water chemistry samples are collected along with field data and visual observations per instructions in Sections 7.1 and 9.1, respectively. Field measurements are recorded by

\(^{3}\) Developed by Earthsoft
an In-Situ Rugged Reader and downloaded to a desktop PC upon completion of the sample trip.

Sample sets are delivered to LSD for laboratory analysis. When samples are collected in remote locations, occasionally microbiological samples are delivered to sub-contracted laboratories to facilitate quicker analysis. Field data and observations are downloaded into an Excel® spreadsheet by the individual field technicians. The LSD returns chemical data via monthly Excel® spreadsheets known collectively as “laboratory extracts” or may be obtained later through a CDPHE SQL\(^4\) based server known as the Integrated Data Report (IDR). These data as well as off-site microbiological data are returned in an electronic format to the Division’s Environmental Data Unit.

Field data and observations along with microbiological data received from off-site laboratories are transferred into a format to be joined with the water chemistry data by the EQUIS database manager. Field, chemistry, and microbiological data coalesce and are analyzed for quality control before data is uploaded to EPA’s WQX. Once in the WQX, the data will be available to all interested parties through the EPA’s Water Quality Warehouse STORET.

13.0 PERSONNEL

The following key personnel from the Environmental Data Unit and other Clean Water Program units will complete the tasks described in this SAP:

Adam Taubman, Jean Aldrich and Lorie Peterson (EDU) – sample technicians/field staff
Blake Beyea (Standards) – field staff
Matt Alms, Holly Brown, and Joni Nuttle (TMDL) – field staff
Chris Theel (EDU) – QA/QC Officer
Arne Sjodin (EDU) – EQUIS Database Manager

Other Division staff not listed above may occasionally participate in field activities on an as-needed basis.

14.0 SCHEDULE

The tentative schedule listed in Appendix D is developed for this SAP and shall be implemented between July 1, 2014 and June 30, 2015. A map illustrating the statewide distribution of these scheduled sites may be found in Appendix E.

\(^4\) A special-purpose programming language designed for managing data held in a relational database management system
15.0 REFERENCES


16.0 APPROVAL

Aimee Konowal
Environmental Data Unit Manager

[Signature]  
6/17/2014  
Date

Chris Theel
Monitoring and Data Work Group Lead

[Signature]  
6-18-14  
Date
### Sample Bar Code Label

Start Time: ___________ hr  Sample Time: ___________ hr  End Time: ___________ hr

Site No.: ___________  Sample Collection Date: ___________

GPS: Type: ___________  No. ___________
Latitude: ___________ N  Longitude: ___________ W  Elevation: ___________
Map Datum: ___________  Set Status: ___________

**SAMPLE COLLECTION INFORMATION:**  **SAMPLER:**
Sampling Location:  
- [ ] Bridge  
- [ ] Instream  
- [ ] Other  
- [ ] Left Bank  
- [ ] Thalweg  
- [ ] Right Bank

Collection Method:  
- [ ] From bridge w/bucket  
- [ ] Instream w/bucket  
- [ ] Instream direct

Filtration Equipment:  
- [ ] Geo Tech Pump  
- [ ] Syringe  
- [ ] Other ___________
Filtration Holder:  
- [ ] 142 mm Geo Tech  
- [ ] 47mm Syringe  
- [ ] Other ___________
Filtration Paper Type:  
- [ ] 142 mm Geo Tech  
- [ ] 47mm Geo Tech  
- [ ] Other ___________
Filtration Method:  
- [ ] Instream direct  
- [ ] From bucket  
- [ ] From sample container
Filtration Used - Total Count: ___________  
- Total: ___________  
- Final: ___________

Deionized Water:  
- Source: ___________  
- Date: ___________
Sample Bottles:  
- Source: ___________  
- Date: ___________

QA/QC Samples:  
- Yes [ ] / No [ ]  
- Type: ___________  
- Duplicate [ ]  
- Blank [ ]  
- Spike [ ]
QA/QC Sample Bar Code No.: ___________

**FIELD MEASUREMENTS:**

Instruments Used:  
- [ ] In-situ  
- [ ] Quanta  
- [ ] YSI  
- Other: ___________  
- Other: ___________
Instruments Calibrated at this site?  
- Yes [ ] / No [ ]
Meter Index No.: ___________
Measurement Method:  
- [ ] From bridge w/bucket  
- [ ] Instream w/bucket  
- [ ] Instream direct

Measurements:  
- Stream Temp: ___________ ° C  
- Spc: ___________  
- uS/cm: ___________  
- DO: ___________ mg/L  
- pH: ___________  
- T. All: ___________ mg/L  
- Air Temp: ___________ ° C  
- Winkin DO: ___________ mg/L  
- Other: ___________  
- Other: ___________
Total Alkalinity calculation: ___________

Other: Field Activity (Check all that apply):  
- [ ] Habitat  
- [ ] RBF  
- [ ] Macroinvertebrates  
- Flow  
- Other: ___________

Field/Weather Observations and Comments: ___________

Samples Collected (Check all bottles that apply):  
- [ ] Metal (250 ml)  
- [ ] Metals Filtered (250 ml)  
- [ ] Metals (1 L)  
- [ ] Metals Filtered (1 L)  
- [ ] Nutrient (250 ml)  
- [ ] Nutrient (1 L)  
- [ ] Nutrient (25 ml)  
- [ ] Neutral (1 L)  
- [ ] Neutral (250 ml)  
- [ ] Micro ___________

Other: ___________
Samples on Ice:  
- Yes [ ] / No [ ]  
- Receiving Lab: ___________  
- Chemical: ___________  
- Micro: ___________
Maps, Drawings, or Additional Comments: ___________  
- On BACK

---

FY15 Surface Water Monitoring Plan SAP
Page 16 of 24
APPENDIX B – REQUEST FOR ANALYTICAL SERVICES FORM

REQUEST FOR ANALYTICAL SERVICES

CUSTOMER

Customer ID:
01000272

Name:
CUNBE - WOOD - Monitor

Address:
4900 Cherry Creek Drive South

City/State:
Denver CO 80238

Phone:

Contact:

Specimen Information

Collected by:

Collected:

Sample Type:

Sample

Sample No.: 

Sample Description:

New Station? County

Sample Site

Bottle Information

Sample Type:

Sample

Bottles:

Size:

Unit:

Number:

Chemistry

Nutrients

Alkalinity, Total

Ammonia

Arsenic

Cadmium

Copper

Lead

Magnesium

Mercury

Nickel

Polonium

Selenium

Silver

Zinc

Other

Field Test

Calcium

Conductivity

Discharge Flow

Dissolved Oxygen

Phosphate, Ortho

Salinity

Temperature

Radiochemistry

Other

Microbiology

Fecal Coliform, MPN

Johnson, MPN

Temperature at Receipt

Received By:

Date/Time:

Temperature at Receipt:

Received By:

Date/Time:

Received By:

Date/Time:

Received By:

Date/Time:

Report No.:

Date of Modification:

URL:

http://www.colorado.gov/CFO/lov/lovform.htm

Report No. 201 Reg. Date of Modification: 11/02/2004

FY15 Surface Water Monitoring Plan SAP

Page 17 of 24
## APPENDIX C – PARAMETERS, METHODS, HOLDING TIMES AND UNITS

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Methodology</th>
<th>Holding Time</th>
<th>Turn-Around Time</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALKALINITY, TOTAL</td>
<td>EPA 310.1</td>
<td>14 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>ALUMINUM</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>ARSENIC</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>BROMIDE</td>
<td>EPA 300.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>CALCIUM</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>CADMIUM</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>CHLORIDE</td>
<td>EPA 300.0</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>CHLOROPHYLL, a</td>
<td>SM 1020 H</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>CHROMIUM</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>CHEMICAL OXYGEN DEMAND</td>
<td>EPA 410.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td></td>
</tr>
<tr>
<td>COPPER</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>HARDNESS, TOTAL</td>
<td>CALCULATION</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>IRON, TREC</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>IRON, DIS</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>LEAD</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>MAGNESIUM</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>MANGANESE</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>MERCURY</td>
<td>EPA 245.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>MOLYBDENUM</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>NICKEL</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>N-AMMONIA</td>
<td>EPA 350.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>N-KIELDAHL</td>
<td>EPA 351.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>N-NITRATE/NITRITE</td>
<td>EPA 353.2</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>NITRITE</td>
<td>EPA 300.0</td>
<td>48 HOURS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>N-TOTAL (subcontracted)</td>
<td>CALCULATION</td>
<td>NA</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>NONYLPHENOL</td>
<td>EPA 1613</td>
<td>14 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>PHOSPHORUS, TOTAL</td>
<td>EPA 365.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>POTASSIUM</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>SELENIUM</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>SILVER</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>SODIUM</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>SOLIDS, DISSOLVED</td>
<td>EPA 160.1</td>
<td>7 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>SOLIDS, SUSPENDED</td>
<td>EPA 160.2</td>
<td>7 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>SULFATE</td>
<td>EPA 300.0</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td>mg/L</td>
</tr>
<tr>
<td>SUVA</td>
<td>SM 5910</td>
<td>498 HRS</td>
<td>30 DAY</td>
<td>abs/cm</td>
</tr>
<tr>
<td>TOTAL ORGANIC CARBON</td>
<td>EPA 415.1</td>
<td>28 DAYS</td>
<td>30 DAY</td>
<td></td>
</tr>
<tr>
<td>URANIUM</td>
<td>EPA 200.8</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
<tr>
<td>ZINC</td>
<td>EPA 200.7</td>
<td>6 MONTHS</td>
<td>30 DAY</td>
<td>ug/L</td>
</tr>
</tbody>
</table>

Metals are dissolved unless otherwise noted.
APPENDIX D – SCHEDULE (MONITORING PLAN)

GROUP 1

<table>
<thead>
<tr>
<th>WBID</th>
<th>Station ID</th>
<th>Waterbody and Description</th>
<th>Visits</th>
<th>Lat</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSPM01b</td>
<td>22</td>
<td>SOUTH PLATTE R NEAR KERSEY</td>
<td>6</td>
<td>40.4122</td>
<td>-104.5628</td>
</tr>
<tr>
<td>COSPUS15</td>
<td>23</td>
<td>SOUTH PLATTE R AT HENDERSON</td>
<td>6</td>
<td>39.9229</td>
<td>-104.8681</td>
</tr>
<tr>
<td>COSPM01a</td>
<td>5140</td>
<td>SOUTH PLATTE RIVER @ FT. LUPTON</td>
<td>6</td>
<td>40.0808</td>
<td>-104.8210</td>
</tr>
<tr>
<td>COSPM01a</td>
<td>5139</td>
<td>SOUTH PLATTE RIVER BLW FT LUPTON</td>
<td>6</td>
<td>40.0927</td>
<td>-104.8178</td>
</tr>
<tr>
<td>COSPL01</td>
<td>128</td>
<td>SOUTH PLATTE R BELOW STERLING</td>
<td>6</td>
<td>40.7474</td>
<td>-103.0560</td>
</tr>
<tr>
<td>COSPCP10</td>
<td>26</td>
<td>CACHE LA Poudre R ABOVE FORT COLLINS</td>
<td>6</td>
<td>40.6644</td>
<td>-105.2239</td>
</tr>
<tr>
<td>COSPCP12</td>
<td>27</td>
<td>CACHE LA Poudre R @ GREELEY</td>
<td>6</td>
<td>40.4178</td>
<td>-104.6394</td>
</tr>
<tr>
<td>COSPCP11</td>
<td>5323</td>
<td>CACHE LA Poudre BLW FT COLLINS WWTF</td>
<td>6</td>
<td>40.5801</td>
<td>-105.0571</td>
</tr>
<tr>
<td>COSPCP11</td>
<td>5322</td>
<td>CACHE LA Poudre ABV FT COLLINS WWTF</td>
<td>6</td>
<td>40.5874</td>
<td>-105.0675</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5457</td>
<td>BIG HOLLOW @ 4050 RD. ABV LITTLE THOMPSON</td>
<td>5</td>
<td>40.2839</td>
<td>-105.0233</td>
</tr>
<tr>
<td>COSPBO09</td>
<td>5575</td>
<td>BOULDER CREEK @ 75TH STREET BRIDGE</td>
<td>6</td>
<td>40.0511</td>
<td>-105.1810</td>
</tr>
<tr>
<td>COSPBO09</td>
<td>5575A</td>
<td>BOULDER CREEK BLW WWTF</td>
<td>6</td>
<td>40.0514</td>
<td>-105.1731</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5575</td>
<td>BIG HOLLOW @ 4050 RD. ABV LITTLE THOMPSON</td>
<td>5</td>
<td>40.2839</td>
<td>-105.0233</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5575</td>
<td>BOULDER CREEK @ 75TH STREET BRIDGE</td>
<td>6</td>
<td>40.0511</td>
<td>-105.1810</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5575</td>
<td>BIG HOLLOW @ 4050 RD. ABV LITTLE THOMPSON</td>
<td>5</td>
<td>40.2839</td>
<td>-105.0233</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5575</td>
<td>BOULDER CREEK @ 75TH STREET BRIDGE</td>
<td>6</td>
<td>40.0511</td>
<td>-105.1810</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5575</td>
<td>BIG HOLLOW @ 4050 RD. ABV LITTLE THOMPSON</td>
<td>5</td>
<td>40.2839</td>
<td>-105.0233</td>
</tr>
<tr>
<td>COSPB10</td>
<td>5575</td>
<td>BOULDER CREEK @ 75TH STREET BRIDGE</td>
<td>6</td>
<td>40.0511</td>
<td>-105.1810</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>CLEAR CREEK</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>COSJAF13a</td>
<td>9422</td>
<td>JUNCTION CREEK @ MOUTH</td>
<td>4</td>
<td>37.2873</td>
<td>-107.8740</td>
</tr>
<tr>
<td>COSJLP06a</td>
<td>9245</td>
<td>STOLLSTEIMER CK. @ HWY 151</td>
<td>4</td>
<td>37.1725</td>
<td>-107.2953</td>
</tr>
<tr>
<td>COSJLP03a</td>
<td>9605</td>
<td>CHERRY CREEK ABV LA PLATA RIVER AT RD 105</td>
<td>4</td>
<td>37.1229</td>
<td>-108.1972</td>
</tr>
<tr>
<td>COSJDO09</td>
<td>10780C</td>
<td>SILVER CREEK ABOVE BLAIR TUNNEL DISCHARGE</td>
<td>4</td>
<td>37.6982</td>
<td>-108.0169</td>
</tr>
<tr>
<td>COSJDO09</td>
<td>9357</td>
<td>LOS PINOS RIVER ABY FOREST LAKE WWTF</td>
<td>4</td>
<td>37.3346</td>
<td>-107.6245</td>
</tr>
<tr>
<td>COSJAF12a</td>
<td>9445</td>
<td>CASCADE CREEK ABV CASCADE VILLAGE WWTF</td>
<td>4</td>
<td>37.6591</td>
<td>-107.8103</td>
</tr>
<tr>
<td>COSJAF02a</td>
<td>82</td>
<td>ANIMAS RIVER NEAR SILVERTON</td>
<td>6</td>
<td>37.7902</td>
<td>-107.6676</td>
</tr>
<tr>
<td>COSJLP03a</td>
<td>9612</td>
<td>LA PLATA RIVER AT 120 RD.</td>
<td>6</td>
<td>37.2755</td>
<td>-108.0338</td>
</tr>
<tr>
<td>COSJAF02a</td>
<td>9490</td>
<td>ANIMAS RIVER ABOVE MAGGIE GULCH</td>
<td>4</td>
<td>37.8599</td>
<td>-107.5758</td>
</tr>
<tr>
<td>COSJAF03a</td>
<td>AN56</td>
<td>ANIMAS RIVER ABOVE ARRASTRA CREEK</td>
<td>4</td>
<td>37.8278</td>
<td>-107.6242</td>
</tr>
<tr>
<td>COSJAF03a</td>
<td>9488</td>
<td>ANIMAS RIVER ABOVE CEMENT CREEK</td>
<td>4</td>
<td>37.8112</td>
<td>-107.6592</td>
</tr>
<tr>
<td>COSJAF03b</td>
<td>9487</td>
<td>ANIMAS RIVER ABOVE MINERAL CREEK</td>
<td>4</td>
<td>37.8040</td>
<td>-107.6644</td>
</tr>
<tr>
<td>COSJAF04a</td>
<td>AN72</td>
<td>ANIMAS R AT USGS STN JUST ABV RAILROAD BRIDGE</td>
<td>4</td>
<td>37.7903</td>
<td>-107.6669</td>
</tr>
<tr>
<td>COSJAF03b</td>
<td>81</td>
<td>ANIMAS RIVER AT BAKERS BRIDGE</td>
<td>4</td>
<td>37.4586</td>
<td>-107.7992</td>
</tr>
<tr>
<td>COSJAF05a</td>
<td>9421</td>
<td>ANIMAS RIVER @ LIGHTNER CREEK</td>
<td>4</td>
<td>37.2682</td>
<td>-107.8856</td>
</tr>
<tr>
<td>WBID</td>
<td>Station ID</td>
<td>Waterbody and Description</td>
<td>Visits</td>
<td>Lat</td>
<td>Long</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>----------------------------------------------------</td>
<td>--------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>COSJAFO5A</td>
<td>9420</td>
<td>ANIMAS RIVER @ DURANGO</td>
<td>4</td>
<td>37.2598</td>
<td>-107.8780</td>
</tr>
<tr>
<td>COGUSM02</td>
<td>10820</td>
<td>CORNET CREEK AT MOUTH IN TELLURIDE</td>
<td>4</td>
<td>37.9376</td>
<td>-107.8189</td>
</tr>
<tr>
<td>COGUSM06b</td>
<td>10818A</td>
<td>MARSHALL CREEK AT MOUTH</td>
<td>4</td>
<td>37.9304</td>
<td>-107.7808</td>
</tr>
<tr>
<td>COGUSM08</td>
<td>10871</td>
<td>SOUTH FORK SAN MIGUEL RIVER NEAR MOUTH</td>
<td>4</td>
<td>37.9402</td>
<td>-107.8988</td>
</tr>
<tr>
<td>COGUSM12a</td>
<td>10860D</td>
<td>SPECIE CK NEAR MOUTH OFF RD M44</td>
<td>4</td>
<td>38.0304</td>
<td>-108.1103</td>
</tr>
<tr>
<td>COGUUN08</td>
<td>10697</td>
<td>MINERAL CREEK ABV UNCOMPAGRE R CONFLUENCE</td>
<td>4</td>
<td>37.9653</td>
<td>-107.6259</td>
</tr>
<tr>
<td>COGUUN09</td>
<td>10695</td>
<td>SNEFFELS CK NR MOUTH TRAIL</td>
<td>4</td>
<td>37.9717</td>
<td>-107.7283</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGUUN11</td>
<td>10690A</td>
<td>CANYON CK @ FR 853 CROSSING</td>
<td>4</td>
<td>38.0019</td>
<td>-107.6940</td>
</tr>
<tr>
<td>COGUSM02</td>
<td>Bear1</td>
<td>BEAR CREEK ABOVE CONFLUENCE WITH SAN MIGUEL</td>
<td>4</td>
<td>37.9342</td>
<td>-107.8039</td>
</tr>
<tr>
<td>COGUSM03b</td>
<td>10815</td>
<td>SAN MIGUEL RIVER @ SOCIETY TURN</td>
<td>4</td>
<td>37.9491</td>
<td>-107.8722</td>
</tr>
<tr>
<td>COGUSM03b</td>
<td>10814</td>
<td>SAN MIGUEL BELOW TELLURIDE</td>
<td>4</td>
<td>37.9481</td>
<td>-107.8766</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGUUN11</td>
<td>10669a</td>
<td>ONION CREEK AT CTY RD 906A</td>
<td>4</td>
<td>38.3258</td>
<td>-107.7648</td>
</tr>
<tr>
<td>COGUUN11</td>
<td>10669b</td>
<td>BILLY CREEK AT 48 BD</td>
<td>4</td>
<td>38.2888</td>
<td>-107.7339</td>
</tr>
<tr>
<td>COGUUG26</td>
<td>10235</td>
<td>WILLOW CK @ 25 RD WEST OF BLUE MESA LAKE FORK</td>
<td>6</td>
<td>38.3750</td>
<td>-107.3000</td>
</tr>
<tr>
<td>COGUUG26</td>
<td>10230</td>
<td>CIMARRON RIVER ALONG HWY 50</td>
<td>6</td>
<td>38.4185</td>
<td>-107.5300</td>
</tr>
<tr>
<td>COGUUG26</td>
<td>10231</td>
<td>BLUE CREEK ABOVE HWY 50</td>
<td>6</td>
<td>38.4053</td>
<td>-107.4083</td>
</tr>
<tr>
<td>COGUUN11</td>
<td>10672</td>
<td>DEER CREEK AT RT 8A</td>
<td>2</td>
<td>38.2341</td>
<td>-107.6941</td>
</tr>
<tr>
<td>COGUUN11</td>
<td>10669C</td>
<td>COW CREEK AT HWY. 550</td>
<td>4</td>
<td>38.2471</td>
<td>-107.7578</td>
</tr>
<tr>
<td>COGUUN11</td>
<td>10669D</td>
<td>COW CREEK AT 12 ROAD</td>
<td>4</td>
<td>38.1564</td>
<td>-107.6467</td>
</tr>
<tr>
<td>COGUUN04B</td>
<td>10605A</td>
<td>UNCOMPAGRE RIVER ABV WEST MONTROSE</td>
<td>4</td>
<td>38.5090</td>
<td>-107.9155</td>
</tr>
<tr>
<td>COGUUN04B</td>
<td>10605B</td>
<td>UNCOMPAGRE RIVER ABV MONTROSE</td>
<td>4</td>
<td>38.5105</td>
<td>-107.9186</td>
</tr>
<tr>
<td>COGUUN04B</td>
<td>10605C</td>
<td>UNCOMPAGRE RIVER BLW MONTROSE</td>
<td>4</td>
<td>38.5121</td>
<td>-107.9253</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROUP 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WBID</th>
<th>Station ID</th>
<th>Waterbody and Description</th>
<th>Visits</th>
<th>Lat</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>COGUSM12b</td>
<td>10843A</td>
<td>CALAMITY DRAW NEAR MOUTH</td>
<td>4</td>
<td>38.2559</td>
<td>-108.6103</td>
</tr>
<tr>
<td>COGULD05</td>
<td>10916</td>
<td>MESA CREEK AT MOUTH ABV HWY 141</td>
<td>4</td>
<td>38.4384</td>
<td>-108.8378</td>
</tr>
<tr>
<td>COGUSM12</td>
<td>10844</td>
<td>DRY CREEK ABOVE GG25 RD.</td>
<td>4</td>
<td>38.2062</td>
<td>-108.6170</td>
</tr>
<tr>
<td>COGUSM12b</td>
<td>10841</td>
<td>COAL CANYON AT Z 26 RD</td>
<td>4</td>
<td>38.3138</td>
<td>-108.6101</td>
</tr>
<tr>
<td>COGUSM12b</td>
<td>10842</td>
<td>TUTTLE DRAW AT 27.00 RD</td>
<td>4</td>
<td>38.2824</td>
<td>-108.5760</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COSJS05</td>
<td>137</td>
<td>SAN JUAN RIVER ABOVE PAGOSA SPRINGS</td>
<td>6</td>
<td>37.3292</td>
<td>-106.9556</td>
</tr>
</tbody>
</table>

FY15 Surface Water Monitoring Plan SAP
Page 20 of 24
<table>
<thead>
<tr>
<th>WBID</th>
<th>Station ID</th>
<th>Waterbody and Description</th>
<th>Visits</th>
<th>Lat</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSJPI05</td>
<td>9275</td>
<td>WILLIAMS CK @ FR. 631</td>
<td>4</td>
<td>37.4616</td>
<td>-107.1984</td>
</tr>
<tr>
<td>COSJSJ09a</td>
<td>9861</td>
<td>RIO BLANCO RIVER AT MOUTH</td>
<td>4</td>
<td>37.1593</td>
<td>-106.9488</td>
</tr>
<tr>
<td>COSJSJ09a</td>
<td>9863</td>
<td>RIO BLANCO R BLW RIO BLANCO DIVERSION DAM @ USGS GAGE</td>
<td>4</td>
<td>37.2035</td>
<td>-106.8117</td>
</tr>
<tr>
<td>COSJSJ06a</td>
<td>9121</td>
<td>MILL CREEK BELOW PAGOSA SPRINGS</td>
<td>6</td>
<td>37.2456</td>
<td>-107.0043</td>
</tr>
<tr>
<td>COSJSJ06a</td>
<td>9113</td>
<td>SAN JUAN ABOVE TAYLOR CANYON</td>
<td>6</td>
<td>37.1658</td>
<td>-107.0371</td>
</tr>
<tr>
<td>COSJSJ10</td>
<td>9860</td>
<td>RITO BLANCO @ HWY 84</td>
<td>6</td>
<td>37.1612</td>
<td>-106.9483</td>
</tr>
<tr>
<td>CORGRG12</td>
<td>8305</td>
<td>RIO GRANDE AT ALAMOSA</td>
<td>6</td>
<td>37.4814</td>
<td>-105.8794</td>
</tr>
<tr>
<td>CORGRG07</td>
<td>8105A</td>
<td>WILLOW CREEK ABOVE CONFLUENCE WITH RIO GRANDE RIVER</td>
<td>2</td>
<td>37.8226</td>
<td>-106.9106</td>
</tr>
<tr>
<td>CORGRG07</td>
<td>8105B</td>
<td>WILLOW CREEK BELOW CREDEE AT CR 504</td>
<td>2</td>
<td>37.8416</td>
<td>-106.9243</td>
</tr>
<tr>
<td>CORGRG02</td>
<td>134</td>
<td>RIO GRANDE RIVER NEAR CREDEE</td>
<td>2</td>
<td>37.8211</td>
<td>-106.9131</td>
</tr>
<tr>
<td>CORGRG06</td>
<td>EW1</td>
<td>E. WILLOW 50 FT ABV CONF W/W. WILLOW</td>
<td>2</td>
<td>37.8644</td>
<td>-106.9242</td>
</tr>
<tr>
<td>CORGRG07</td>
<td>WW1</td>
<td>W. WILLOW JUST ABV CONFL W/ E. WILLOW</td>
<td>2</td>
<td>37.8647</td>
<td>-106.9250</td>
</tr>
<tr>
<td>CORGRG04a</td>
<td>135</td>
<td>RIO GRANDE R NEAR WAGONWHEEL GAP</td>
<td>2</td>
<td>37.7669</td>
<td>-106.8308</td>
</tr>
<tr>
<td>CORGRG04a</td>
<td>8104K</td>
<td>RIO GRANDE R @ HWY 149</td>
<td>2</td>
<td>37.8220</td>
<td>-106.8897</td>
</tr>
<tr>
<td>COARUA02c</td>
<td>7182</td>
<td>ARKANSAS R. BLW LEADVILLE</td>
<td>6</td>
<td>39.1645</td>
<td>-106.3202</td>
</tr>
<tr>
<td>COARUA00B</td>
<td>7188</td>
<td>IOWA GULCH BLW BLACK CLOUD MINE TREATMENT PLANT</td>
<td>4</td>
<td>39.2222</td>
<td>-106.2430</td>
</tr>
<tr>
<td>COARUA01a</td>
<td>7177E</td>
<td>EAST FORK SAYRES GULCH U/S WEST FORK SAYRES GULCH</td>
<td>4</td>
<td>39.0195</td>
<td>-106.5311</td>
</tr>
<tr>
<td>COARUA01a</td>
<td>7177H</td>
<td>WEST FORK SAYRES GULCH U/S EAST FORK SAYRES GULCH</td>
<td>4</td>
<td>39.0194</td>
<td>-106.5313</td>
</tr>
<tr>
<td>COARUA01b</td>
<td>7199</td>
<td>EAST FORK ARKANSAS RIVER ABOVE CLIMAX</td>
<td>4</td>
<td>39.3517</td>
<td>-106.1653</td>
</tr>
<tr>
<td>COARUA01b</td>
<td>7198</td>
<td>EF ARKANSAS BLW HWY @ FREMONT PASS</td>
<td>4</td>
<td>39.3618</td>
<td>-106.1795</td>
</tr>
<tr>
<td>COARUA01b</td>
<td>7192</td>
<td>EF ARKANSAS ABV. BIRDSEYE GULCH</td>
<td>4</td>
<td>39.3142</td>
<td>-106.2239</td>
</tr>
<tr>
<td>COARUA02a</td>
<td>7186J</td>
<td>EF ARK RIVER ABV CONFL WITH ARKANSAS RIVER</td>
<td>4</td>
<td>39.2594</td>
<td>-106.3406</td>
</tr>
<tr>
<td>COARUA02b</td>
<td>7186A</td>
<td>ARKANSAS RIVER ABOVE CONFLUENCE W/ LAKE FORK</td>
<td>4</td>
<td>39.2024</td>
<td>-106.3530</td>
</tr>
<tr>
<td>COARUA03</td>
<td>7145</td>
<td>ARKANSAS RIVER BLW JOHNSON VILLAGE</td>
<td>4</td>
<td>38.8132</td>
<td>-106.1042</td>
</tr>
<tr>
<td>COARUA05</td>
<td>7183</td>
<td>HALFMOON CREEK NEAR LEADVILLE</td>
<td>4</td>
<td>39.1708</td>
<td>-106.3875</td>
</tr>
<tr>
<td>COARUA03</td>
<td>7140</td>
<td>ARKANSAS RIVER @ SALIDA</td>
<td>4</td>
<td>38.5447</td>
<td>-106.0070</td>
</tr>
<tr>
<td>COARUA15?</td>
<td>TBD</td>
<td>UPPER GRAPE CREEK TBD</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>COARUA15?</td>
<td>TBD</td>
<td>UPPER GRAPE CREEK TBD</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>COARUA15?</td>
<td>TBD</td>
<td>UPPER GRAPE CREEK TBD</td>
<td>2</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>COARUA15</td>
<td>7119</td>
<td>GRAPE CREEK DOWNSTREAM OF DEWEESER RESERVOIR</td>
<td>3</td>
<td>38.2109</td>
<td>-105.4462</td>
</tr>
<tr>
<td>COARUA15</td>
<td>7120</td>
<td>GRAPE CK. ABV. DEWEESER RES. @ GAGE</td>
<td>3</td>
<td>38.1862</td>
<td>-105.4840</td>
</tr>
<tr>
<td>COARUA15</td>
<td>7120B</td>
<td>GRAPE CREEK AT CR170 (DOWNSTREAM WWTP)</td>
<td>3</td>
<td>38.1457</td>
<td>-105.4795</td>
</tr>
<tr>
<td>COARUA15</td>
<td>7120C</td>
<td>GRAPE CREEK AT HERMIT RD</td>
<td>3</td>
<td>38.1312</td>
<td>-105.4731</td>
</tr>
<tr>
<td>COSPUS10A</td>
<td>5779C</td>
<td>EAST PLUM CRK ABV PLUM CRK WWTF</td>
<td>6</td>
<td>39.4201</td>
<td>-104.8945</td>
</tr>
<tr>
<td>COSPUS10A</td>
<td>5779D</td>
<td>EAST PLUM CRK BLW PLUM CRK WWTF</td>
<td>6</td>
<td>39.4239</td>
<td>-104.9073</td>
</tr>
<tr>
<td>COARLA07</td>
<td>11</td>
<td>PURGATOIRE R BLW TRINIDAD @ US HWY 350 BRIDGE</td>
<td>6</td>
<td>37.2873</td>
<td>-104.3188</td>
</tr>
<tr>
<td>COARMA14</td>
<td>7615</td>
<td>CUCHARAS RIVER @ HWY 160 AND 340 ROAD</td>
<td>4</td>
<td>37.7552</td>
<td>-104.8355</td>
</tr>
<tr>
<td>COARMA04a</td>
<td>7293</td>
<td>WILDHORSE CK. @ CONFL. W/ ARKANSAS R.</td>
<td>3</td>
<td>38.2729</td>
<td>-104.6368</td>
</tr>
<tr>
<td>COARMA04a</td>
<td>7294</td>
<td>WILDHORSE CK. @ 24TH ST. BRIDGE</td>
<td>3</td>
<td>38.2908</td>
<td>-104.6456</td>
</tr>
<tr>
<td>COARMA04a</td>
<td>7293A</td>
<td>WILDHORSE CK AT 11TH AND GRAHAM</td>
<td>3</td>
<td>38.2769</td>
<td>-104.6390</td>
</tr>
<tr>
<td>WBID</td>
<td>Station ID</td>
<td>Waterbody and Description</td>
<td>Visits</td>
<td>Lat</td>
<td>Long</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>COARM04a</td>
<td>7293B</td>
<td>WILDHORSE CREEK AT 18TH ST.</td>
<td>3</td>
<td>38.2837</td>
<td>-104.6399</td>
</tr>
<tr>
<td>COARM04g</td>
<td>7294A1</td>
<td>PESTHOUSE GULCH D/S PUEBLO WEST WWTP</td>
<td>3</td>
<td>38.3123</td>
<td>-104.6727</td>
</tr>
<tr>
<td>COARM04a</td>
<td>7294B</td>
<td>WILDHORSE CREEK D/S HWY 50</td>
<td>3</td>
<td>38.3067</td>
<td>-104.6522</td>
</tr>
<tr>
<td>COARFO02a</td>
<td>7319A</td>
<td>FOUNTAIN CRK ABV SECURITY WWTF</td>
<td>4</td>
<td>38.7334</td>
<td>-104.7341</td>
</tr>
<tr>
<td>COARFO02a</td>
<td>7319B</td>
<td>FOUNTAIN CRK BLW SECURITY WWTF</td>
<td>4</td>
<td>38.7432</td>
<td>-104.7414</td>
</tr>
<tr>
<td>COARFO02b</td>
<td>7360</td>
<td>FOUNTAIN CK. @ 4TH STREET BRIDGE</td>
<td>6</td>
<td>38.2703</td>
<td>-104.5997</td>
</tr>
<tr>
<td>COARLA01b</td>
<td>7520</td>
<td>ARKANSAS R. NEAR NEPESTA @ HWY 50 RD 613</td>
<td>6</td>
<td>38.1675</td>
<td>-104.1493</td>
</tr>
<tr>
<td>COARLA01c</td>
<td>7808</td>
<td>ARKANSAS R. NR LAMAR HWY 50/287 BRIDGE</td>
<td>6</td>
<td>38.0963</td>
<td>-102.5196</td>
</tr>
</tbody>
</table>

**GROUP 3**

<table>
<thead>
<tr>
<th>WBID</th>
<th>Station ID</th>
<th>Waterbody and Description</th>
<th>Visits</th>
<th>Lat</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUCY02C</td>
<td>38</td>
<td>YAMPA RIVER AT MILNER</td>
<td>6</td>
<td>40.4778</td>
<td>-107.0132</td>
</tr>
<tr>
<td>COUCUC03</td>
<td>45</td>
<td>COLORADO RIVER NEAR HOT SULFUR SPRINGS</td>
<td>6</td>
<td>40.0667</td>
<td>-106.1000</td>
</tr>
<tr>
<td>COUCEA09B</td>
<td>52</td>
<td>EAGLE RIVER AT GYPSUM</td>
<td>6</td>
<td>39.6499</td>
<td>-106.9524</td>
</tr>
<tr>
<td>COUCEA08</td>
<td>74</td>
<td>GORE CREEK AT MOUTH</td>
<td>6</td>
<td>39.6233</td>
<td>-106.2797</td>
</tr>
<tr>
<td>COUCBL01</td>
<td>115</td>
<td>BLUE R. ABV DILLON RESERVOIR</td>
<td>6</td>
<td>39.5667</td>
<td>-106.0491</td>
</tr>
<tr>
<td>COUCNP05b</td>
<td>120</td>
<td>MICHIGAN RIVER AT WALDEN</td>
<td>6</td>
<td>40.7410</td>
<td>-106.2820</td>
</tr>
<tr>
<td>COUCUC10c</td>
<td>12161</td>
<td>FRASER RIVER AT HWY 40 NR GRANBY</td>
<td>6</td>
<td>40.0805</td>
<td>-105.9293</td>
</tr>
<tr>
<td>COUCRF03a</td>
<td>12701</td>
<td>ROARING FORK RIVER @ 7TH ST. BRIDGE IN GLENWOOD</td>
<td>6</td>
<td>39.5463</td>
<td>-107.3312</td>
</tr>
<tr>
<td>COUCNP4b</td>
<td>12965A</td>
<td>ILLINOIS RIVER NR WALDEN @ ARAPAHOE NWF</td>
<td>3</td>
<td>40.7263</td>
<td>-106.2900</td>
</tr>
<tr>
<td>COUCNP4b</td>
<td>12965</td>
<td>ILLINOIS RIVER AT ARAPAHO NWR</td>
<td>3</td>
<td>40.6162</td>
<td>-106.2805</td>
</tr>
<tr>
<td>COJDO11</td>
<td>10740</td>
<td>HOUSE CREEK AT 526 ROAD</td>
<td>4</td>
<td>37.5654</td>
<td>-108.4563</td>
</tr>
<tr>
<td>COJDO11</td>
<td>10750</td>
<td>PLATEAU CREEK AT 514 ROAD</td>
<td>4</td>
<td>37.6803</td>
<td>-108.4683</td>
</tr>
<tr>
<td>COJDO11</td>
<td>10753</td>
<td>BEAVER CREEK AT 526 ROAD</td>
<td>4</td>
<td>37.6604</td>
<td>-108.3999</td>
</tr>
<tr>
<td>COSILP08a</td>
<td>9889</td>
<td>RITTER DRAW @ HWY 160</td>
<td>4</td>
<td>37.3528</td>
<td>-108.5430</td>
</tr>
<tr>
<td>COSILP08a</td>
<td>9884b</td>
<td>HARTMAN DRAW ABV CORTEZ SD N. WWTF</td>
<td>4</td>
<td>37.3590</td>
<td>-108.5833</td>
</tr>
<tr>
<td>COSILP01a</td>
<td>TBD</td>
<td>DOVE CREEK BLW DOVE CREEK LAGOON OUTFALL</td>
<td>0</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>COSIDO04</td>
<td>10703</td>
<td>DOLORES RIVER ABV DOLORES WWTF</td>
<td>4</td>
<td>37.4749</td>
<td>-108.4722</td>
</tr>
<tr>
<td>COSILP07A</td>
<td>9887</td>
<td>MCELMO CK ABV CORTEZ SD S.W. WWTF</td>
<td>4</td>
<td>37.3220</td>
<td>-108.6055</td>
</tr>
<tr>
<td>COSILP07A</td>
<td>9888</td>
<td>MCELMO BLW CORTEZ WWTF</td>
<td>4</td>
<td>37.3208</td>
<td>-108.6088</td>
</tr>
<tr>
<td>COGUF03</td>
<td>10400</td>
<td>NORTH FORK GUNNISON R AT MOUTH</td>
<td>6</td>
<td>38.7836</td>
<td>-107.8350</td>
</tr>
<tr>
<td>COGULG04a</td>
<td>10516E</td>
<td>PEACH VALLEY CR AT H75 RD</td>
<td>4</td>
<td>38.7665</td>
<td>-107.9497</td>
</tr>
<tr>
<td>COGULG07</td>
<td>10582</td>
<td>SURFACE CK NR MOUTH</td>
<td>4</td>
<td>38.7881</td>
<td>-107.9953</td>
</tr>
<tr>
<td>COGULG07</td>
<td>10588</td>
<td>WARD CREEK AT MOUTH JUST ABOVE WARD CREEK RD.</td>
<td>4</td>
<td>38.8770</td>
<td>-107.9801</td>
</tr>
<tr>
<td>COGULG12</td>
<td>10214</td>
<td>MUDY CCK @ HWY 92</td>
<td>4</td>
<td>38.6660</td>
<td>-107.5958</td>
</tr>
<tr>
<td>COGUNF04</td>
<td>10495</td>
<td>EAST MUDDY CREEK ABV HWY 133</td>
<td>4</td>
<td>39.0242</td>
<td>-107.3623</td>
</tr>
<tr>
<td>COGUNF04</td>
<td>10490</td>
<td>MUDY CCK ABV PAONIA RESERVOIR</td>
<td>4</td>
<td>38.9881</td>
<td>-107.3482</td>
</tr>
<tr>
<td>COGUNF06b</td>
<td>10425</td>
<td>COTTONWOOD CK NR MOUTH @ J.75 RD</td>
<td>4</td>
<td>38.8061</td>
<td>-107.6870</td>
</tr>
<tr>
<td>COGUNF06b</td>
<td>10425C</td>
<td>ALUM GULCH @ 34.00 RD.</td>
<td>4</td>
<td>38.7531</td>
<td>-107.7405</td>
</tr>
<tr>
<td>COGUUG23</td>
<td>10329</td>
<td>STEWART CK. @ LA GARITA W.A.</td>
<td>4</td>
<td>38.0239</td>
<td>-106.8419</td>
</tr>
<tr>
<td>COGUUG18b</td>
<td>10305</td>
<td>TOMICHI CREEK DOWNSTREAM OF SARGENTS</td>
<td>6</td>
<td>38.3953</td>
<td>-106.4226</td>
</tr>
<tr>
<td>WBID</td>
<td>Station ID</td>
<td>Waterbody and Description</td>
<td>Visits</td>
<td>Lat</td>
<td>Long</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
<td>----------------------------------------------------------------</td>
<td>--------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>COGUUG19</td>
<td>10350</td>
<td>RAZOR CREEK AT 45 RD BR</td>
<td>6</td>
<td>38.3846</td>
<td>-106.6733</td>
</tr>
<tr>
<td>COGUUG20</td>
<td>10392</td>
<td>INDIAN CREEK ABOVE MARSHALL CREEK</td>
<td>6</td>
<td>38.3757</td>
<td>-106.3577</td>
</tr>
<tr>
<td>COGUUG21</td>
<td>10391</td>
<td>MARSHALL CREEK AT MOUTH</td>
<td>6</td>
<td>38.4057</td>
<td>-106.4150</td>
</tr>
<tr>
<td>COGUUG23</td>
<td>10325</td>
<td>COCHETOPA CREEK ABOVE DOME LAKES</td>
<td>6</td>
<td>38.1802</td>
<td>-106.7520</td>
</tr>
<tr>
<td>COGUUG24</td>
<td>10320</td>
<td>COCHETOPA CK. NEAR MOUTH</td>
<td>6</td>
<td>38.5168</td>
<td>-106.7854</td>
</tr>
<tr>
<td>COGUUG29a</td>
<td>10282</td>
<td>CEBOLLA CREEK AT USGS GAGE</td>
<td>6</td>
<td>38.2275</td>
<td>-107.0728</td>
</tr>
<tr>
<td>COGUUG04</td>
<td>58</td>
<td>TAYLOR RIVER AT ALMONT</td>
<td>6</td>
<td>38.6644</td>
<td>-106.8447</td>
</tr>
<tr>
<td>COGUUG16a</td>
<td>10267</td>
<td>MILL CREEK BLW WEST ELK WILDERNESS</td>
<td>6</td>
<td>38.6953</td>
<td>-107.0614</td>
</tr>
<tr>
<td>COGUUG21</td>
<td>10394</td>
<td>MARSHALL CREEK DOWNSTREAM OF TANK SEVEN CREEK</td>
<td>4</td>
<td>38.3593</td>
<td>-106.3311</td>
</tr>
<tr>
<td>COGUUG21</td>
<td>10396</td>
<td>MILLSWITCH CREEK AT MARSHALL PASS ROAD</td>
<td>4</td>
<td>38.3785</td>
<td>-106.2758</td>
</tr>
<tr>
<td>COGUUG21</td>
<td>10397</td>
<td>MARSHALL CREEK NEAR CONTINENTAL DIVIDE</td>
<td>4</td>
<td>38.3916</td>
<td>-106.2618</td>
</tr>
<tr>
<td>COGUUG30</td>
<td>10245A</td>
<td>HENSON CREEK ABOVE UTE-ULAY MINE</td>
<td>4</td>
<td>38.0207</td>
<td>-107.3966</td>
</tr>
<tr>
<td>COGUUG30</td>
<td>10245B</td>
<td>HENSON CREEK BELOW UTE-ULAY MINE</td>
<td>4</td>
<td>38.0187</td>
<td>-107.3464</td>
</tr>
<tr>
<td>COGUUG30</td>
<td>10245</td>
<td>HENSON CREEK ABV HWY 149</td>
<td>4</td>
<td>38.0259</td>
<td>-107.3203</td>
</tr>
<tr>
<td>COGUUG31</td>
<td>10245M</td>
<td>PALMETTO GULCH NR FR 20 ABV HENSON CREEK</td>
<td>4</td>
<td>37.9809</td>
<td>-107.5617</td>
</tr>
<tr>
<td>COGUUG04</td>
<td>10103</td>
<td>TAYLOR RIVER BELOW LODGEPOLE CAMP</td>
<td>4</td>
<td>38.7626</td>
<td>-106.6620</td>
</tr>
<tr>
<td>COGUUG16</td>
<td>10266</td>
<td>MILL CREEK AT TR 438 OFF 727 RD.</td>
<td>4</td>
<td>38.6960</td>
<td>-107.0594</td>
</tr>
<tr>
<td>COGUUG16</td>
<td>10268</td>
<td>OHIO CREEK ABOVE BALDWIN</td>
<td>4</td>
<td>38.7717</td>
<td>-107.0630</td>
</tr>
<tr>
<td>COGUUG16</td>
<td>10270</td>
<td>OHIO CREEK AT USGS GAGE AT CR 48</td>
<td>4</td>
<td>38.5880</td>
<td>-106.9312</td>
</tr>
<tr>
<td>COGUUG17</td>
<td>10207</td>
<td>ANTELOPE CK BLW W. ANTELOPE CK</td>
<td>4</td>
<td>38.5670</td>
<td>-106.9593</td>
</tr>
<tr>
<td>COGUUG17</td>
<td>10208</td>
<td>ANTELOPE CREEK AT 818 ROAD</td>
<td>4</td>
<td>38.6140</td>
<td>-106.9827</td>
</tr>
<tr>
<td>COGUUG09</td>
<td>10122</td>
<td>WASHINGTON GULCH ABOVE WOODS CREEK</td>
<td>4</td>
<td>38.8905</td>
<td>-106.9709</td>
</tr>
<tr>
<td>COGUUG08</td>
<td>150A</td>
<td>SLATE RIVER ABOVE CRESTED BUTTE WWTP</td>
<td>4</td>
<td>38.8765</td>
<td>-106.9765</td>
</tr>
<tr>
<td>COGUUG14</td>
<td>10204</td>
<td>GUNNISON RIVER NEAR GUNNISON AT W. GUNNISON AVE.</td>
<td>4</td>
<td>38.5419</td>
<td>-106.9492</td>
</tr>
<tr>
<td>COGUUG14</td>
<td>57</td>
<td>GUNNISON RIVER WEST OF GUNNISON</td>
<td>4</td>
<td>38.5167</td>
<td>-107.0000</td>
</tr>
</tbody>
</table>
APPENDIX E – MAP OF SCHEDULED SITES ACROSS COLORADO