CANYON HIGHWAY DISTRICT NO. 4

RESOLUTION NO. 13-10-1

A RESOLUTION, PROVIDING FOR FINDINGS; AMENDING HIGHWAY STANDARDS AND DEVELOPMENT PROCEDURES FOR THE HIGHWAY DISTRICTS OF CANYON COUNTY, IDAHO JANUARY 2010 EDITION BY THE AMENDMENT OF SUBSECTION 2170 TO INCLUDE THE ADDITION THERETO OF REQUIREMENTS FOR POST-CONSTRUCTION STORMWATER MANAGEMENT PROCEDURES; AND DIRECTING THE SECRETARY AND PROVIDING FOR AN EFFECTIVE DATE.

BE IT RESOLVED by the Board of Commissioners of the Canyon Highway District No. 4 that:

Section 1. Findings: The Commissioners of the Canyon Highway District No. 4 find:

1.1 The Highway District Board of Commissioners has the exclusive general supervisory authority over all public highways, public streets and public rights-of-way under their jurisdiction as provided in Idaho Code Section § 40-1310; and

1.2 The Highway District Board of Commissioners has full power to establish use standards as provided in Idaho Code Section § 40-1310(8); and

1.3 The Highway District Board of Commissioners adopted, with certain amendments thereto, the "Association of Canyon County Highway Districts (ACCHD) Manual for Highway Standards and Development Procedures" January 2010 Edition; and

1.4 A portion of Canyon Highway District No. 4 lies within the Nampa Urbanized Area and is subject to the Highway District's National Pollution Discharge Elimination System Permit No. IDS-028134, which requires the Highway District to require, review, inspect and enforce construction site storm water runoff control and post-construction stormwater management within the area which is subject to the Permit; and

1.5 The "Association of Canyon County Highway Districts (ACCHD) Manual for Highway Standards and Development Procedures" January 2010 Edition does not provide policy for post-construction stormwater management, construction site storm water runoff control, or construction plan review checklists for stormwater pollution prevention plans as is required by the Highway District's National Pollution Discharge Elimination System Permit No. IDS-028134; and

1.6 The Highway District desires to comply with the National Pollution Discharge Elimination System Permit No. IDS-02813 and in addition protect all of its highway system, the public health, safety, and welfare and public waters from pollution; and

1.7 The post-construction stormwater management plan, construction site storm water runoff control standards and the construction plan review checklists for stormwater pollution

prevention plans as set forth in this Resolution are reasonable standards within the authority of the Board of Commissioners to accomplish the intent as stated herein.

Section 2. Amendment to Highway Standards and Development Procedures: That this Highway District's adoption of the "Highway Standards and Development Procedures for the Highway Districts of Canyon County, Idaho" January 2010 Edition [HSDP] is hereby further amended as follows:

2.1 By repeal of Resolution No. 12-10-2, dated October 9th, 2012, which first established a new Section 2170 entitled "Construction Site Storm Water Runoff Control"; and

2.1 By the addition thereto of an amended Section 2170 entitled to read "Storm Water Runoff Control for Development and Redevelopment" as set forth in Exhibit "A" to this Resolution; and

2.2 By the addition thereto of appendices Exhibit "B" entitled "Construction Plan Review Checklists for Stormwater Pollution Prevention Plans" to read as set forth in Exhibit B to this Resolution.

Section 3. All resolutions, orders or parts thereof in conflict herewith are hereby repealed, rescinded and annulled.

Section 4. The Canyon Highway District No. 4 Commissioners hereby declare that any section, paragraph, sentence or word of this Resolution as adopted and amended herein be declared for any reason to be invalid it is the intent of the Canyon Highway District No. 4 Commissioners that it would have passed all other portions of this Resolution independent of the elimination here from of any portion as may be declared invalid.

Section 5. The District Secretary is directed to file this Resolution forthwith in the official records of this Highway District, and the same shall be in full force and effect commencing the date of passage.

PASSED By the Commissioners of the Canyon Highway District No. 4 Canyon County, State of Idaho this 9th day of October, 2013.

Rick Youngblood, Chairman

Jay Gibbons, Commissioner

John McEvoy, Commissioner

Attest:

Angela P'Pool, Secretary

EXHIBIT "A"

An amendment to the "Highway Standards and Development Procedures for the Highway Districts of Canyon County, Idaho" January 2010 Edition by the addition thereto of an amended section 2170 to read as follows:

2170 Storm Water Runoff Control for Development and Redevelopment

2170.010. Purpose.

This section is created in compliance with the Construction Site Storm Water Runoff Control and the Post-Construction Storm Water Management in New Development and Redevelopment requirements of the Storm Water Management Program contained in the NPDES Permit(s) authorizing storm water discharge to the waters of the United States from Municipal Separate Storm Sewer Systems (MS4) that the Highway District owns or operates as a permittee.

A purpose of these provisions is to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) from construction sites and, following construction, from permanent stormwater facilities created by Development or Redevelopment projects under the jurisdiction of the Highway District through its exclusive general supervisory authority over all public highways and public rights-of-way under its jurisdiction and full power to establish use standards, including authority to issue Special Highway Use Permits (Special Permit) under Section 2120.

2170.020. Definitions. The following definitions supplement those already set forth in Section 6000:

"Approved Stormwater Pollution Prevention Plan" or "Approved SWPPP" means the site specific Stormwater Pollution Prevention Plan approved by the Highway District and attached to the Special Permit or included with the Development Improvement Plans.

"Best Management Practices (BMPs)" means schedules of activities (including implementation of physical or structural controls), prohibition of practices, maintenance procedures, and other managerial practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operation procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Construction Activity" means actions taken to alter the existing vegetation and/or underlying soil of a site, such as clearing, grading, excavation, cutting, filling, soil movement and compaction, and stockpiling of soils, except any emergency activity that is immediately necessary for the protection of life, property, or natural resources and agricultural operations.

"Development or Redevelopment" means, for the purposes of this Section 2170, any activity within the District requiring application to the District, review by the District, or approval of the District, including but not limited to roadway construction or improvements, subdivision of land by plat or other legal methods, changes in land use(s), or other activities that affect stormwater runoff received by the municipal separate storm sewer system under the jurisdiction of the District. It does not include maintenance projects, including pavement maintenance, pavement

restoration or replacement, or maintenance or replacement of existing drainage facilities by or on behalf of the Highway District.

"Material" means soils, sand, gravel, clay, or any other organic or inorganic material, which is not municipal, refuse, or defined elsewhere.

"Municipal Separate Storm Sewer System" or "MS4" means a conveyance or system of conveyances designed or used for collecting or conveying storm water, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains owned or operated by the Highway District that discharges to waters of the United States.

"Permanent Best Management Practices", or "Permanent BMPs" means physical or structural stormwater controls, including the long-term operation and maintenance of the same, which are designed and constructed as all or part of the infrastructure necessary for the collection, conveyance, storage, treatment, or discharge of stormwater runoff on a finished site.

"Plan Designer" means an individual who has received certification, derived through successful completion of a Stormwater Pollution Prevention Plan Designer Certification program, from an entity who is a Stormwater NPDES permittee within Idaho or is a nationally recognized erosion and sediment control organization, or demonstrates competence based on education and/or experience as determined by the Highway District.

"Pollutant" means a Pollutant as defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

"Responsible Person" means any Person with operational control over site activities and day-to-day operational control of Stormwater Pollution Prevention Plan requirements and Permit conditions at the site of any Construction Activity and who has received certification, derived through successful completion of a Stormwater Pollution Prevention Plan Responsible Person or Inspector Certification program, from an entity who is a Stormwater NPDES permittee within Idaho or is a nationally recognized erosion and sediment control organization, or demonstrates competence based on education and/or experience as determined by the Highway District.

"Sediment" means solid material, either mineral or organic, that is or has been in suspension or is being moved from its site of origin due to erosion.

"Special Permit" shall mean a Special Permit for use of the public right-of-way issued pursuant to the provisions set forth in Section 2120.

"Stormwater Pollution Prevention Plan" or "SWPPP" means a site-specific, written document, including a narrative and plan, that among other things: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from the construction site; and (3) identifies procedures the operator will implement to comply the provisions of this Section.

"Variance" means a modification of the requirements of these Standards based on provisions set forth in Section 2140.

2170.030. Construction Site Stormwater Runoff Control

2170.031. Stormwater Pollution Prevention Plan Requirement. No Construction Activities that will disturb one (1) or more acres of land, or will disturb less than one (1) acre of land but is part of a larger common plan of development or sale that disturbs one (1) acre or more, where the disturbed land lies within the Highway District's public right-of-way or land proposed or intended to be dedicated or conveyed to the Highway District as public right-of-way as part of a development, shall be granted a Special Permit or Improvement Plan approval without an Stormwater Pollution Prevention Plan approved by the Highway District.

2170.032. Stormwater Pollution Prevention Plan Submission.

A. When a Stormwater Pollution Prevention Plan is required for Construction Activities that are part of a Development or Subdivision requiring the submission of Improvement Plans as provided for in Section 2010.050, the SWPPP shall be submitted and reviewed with the Improvement Plans as provided for in Section 2010.070.

B. When a Stormwater Pollution Prevention Plan is required for Construction Activities that are not part of a Development or Subdivision requiring the submission of Improvement Plans, the SWPPP shall be submitted with the Application and Permit to Use Right-of-Way (Special Permit) as provided for in Section 2120 and shall be reviewed as provided for in Section 2010.070.

C. Under either submission process specified, during the review by the Highway District public comments regarding the proposed Construction Activity and corresponding Stormwater Pollution Prevention Plan will be accepted by the Highway District through its adopted procedure for accepting and considering public comments or complaints. Any such public comments shall be considered during SWPPP review and documented in accordance with adopted procedures.

2170.033. Stormwater Pollution Prevention Plan Duration. An Approved Stormwater Pollution Prevention Plan shall remain in effect until the date stated on the SWPPP, unless an extension is approved in writing by the Highway District or unless revoked earlier under the provisions of this section or section 2120.

2170.033. Failure to Comply.

A. In the event the provisions set forth under the Approved Stormwater Pollution Prevention Plan or requirements of Section 2170.060 have not been met, the Responsible Person will be given a written notice of the violation and seven (7) days or less, as determined by the Highway District if such violation is resulting in discharge of pollutants or sediment to the MS4, in which to correct the violation.

B. If the corrections have not been made within the designated time period or additional violations occur, the Highway District shall:

1. Issue a written stop work order to the Applicant and Responsible Person.
2. Document daily through photographs and/or written statements the status of the violation.

The stop work order shall remain in effect until all violations have been corrected and written authorized for work to resume is issued by the Highway District.

C. If the violations have not been corrected within thirty (30) days of written notice or violations have not been corrected within the (7) days or less of written notice on three (3) or more occasions, the Highway District:

1. Shall revoke of the Special Permit, based upon violations of an Approved Storm Water Pollution Prevention Plan and provide written notification to the Applicant.
2. Shall notify the Idaho Department of Environmental Quality and Environmental Protection Agency of the violations and request enforcement.
3. May correct the violation and/or stabilize areas of Construction Activity within the limits of the Highway at the expense of the Applicant, including the costs and expenses of the Highway District, which such expenses shall be applied against the Applicant's Assurance of Performance Filing Fee and the Highway District may seek reimbursement from the Applicant for such expense beyond the amount of the Applicant's Assurance of Performance Filing Fee. Highway District staff shall document any and all District staff time and expenses related to the correction of the violation(s) and/or stabilize areas of Construction Activity.

D. Where the conditions set forth in 2170.033(C) have been met and necessitated the Highway District to take the actions specified therein, the Highway District may refuse to grant further Special Permits or Storm Water Pollution Prevention Plan approvals to the Applicant, including the Construction Activity under which violation(s) occur.

E. Liability for any such failure to comply shall be the responsibility of the applicant, and the Highway District shall seek to have such person defend, indemnify and hold harmless the Highway District in any administrative or judicial enforcement action against the Highway District relating to such failure to comply as provided by applicable rules of law.

2170.040. Stormwater Pollution Prevention Best Management Practices.

Preparation, selection, implementation, maintenance, inspection, and documentation of Stormwater Pollution Prevention Plans and Best Management Practices shall be in accordance with:

A. Idaho Department of Transportation's Erosion & Sediment Control Best Management Practices Manual, 2011 or most current edition, or
B. Idaho Department of Environmental Quality's Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, 2005 or most current edition, or

C. Other Best Management Practices approved at the Highway District's sole discretion and based on documentation demonstrating the past use and performance of the proposed BMP in preventing or reducing stormwater pollution.

2170.050. Stormwater Pollution Prevention Plan (SWPPPP).

2170.051. General. The Stormwater Pollution Prevention Plan must be prepared and signed by a Plan Designer in a format set forth herein. It shall describe the proposed Construction Activity and the proposed Best Management Practices (BMPs) to be employed to prevent and control water quality impacts during and after construction. Review of the submitted information by the Highway District shall consider the potential water quality impacts that may result based upon proximity to an MS4 and the type of Construction Activity contemplated at the site. Development of the SWPPP shall at a minimum include consideration of:

A. Erosion Control
   1. Phase Construction Activity
   2. Minimize clearing and grading.
   3. Waterway protection and drainage ways stabilization.
   4. Soil stabilization
   5. Steep slope protection
   6. Controlling storm water flow on and across site

B. Sediment Control
   1. Perimeter controls.
   2. MS4 and inlet protection
   3. Sediment retention and dewatering practices
   4. Site Access controls
   5. Stockpiles erosion & sediment control

C. Other Practices
   1. Inspection and Maintenance
   2. Waste Management
   3. Spill Prevention and Control

2170.052. SWPPP Submission Requirements. At a minimum, the application and site specific Stormwater Pollution Prevention Plan shall contain the following:

A. Narrative
   1. Name, address, title, and daytime and emergency phone numbers of Applicant
   2. Name, address, title, and daytime phone number of the Plan Designer
   3. Name, address, title, and daytime and emergency phone numbers of designated Responsible Person
   4. The location of the area included in the SWPPP and total area
   5. Type of work, description of activities, sequence, duration, and potential pollutants
   6. Potential site discharge locations and receiving water or MS4
   7. Soils information
   8. BMP locations, maintenance schedule, and inspection schedule
   9. Water management controls

10. Spill Prevention controls
11. Dewatering methods and controls
12. Inspection Checklist
13. Final Stabilization
14. BMP removal schedule
15. Any additional information deemed necessary by the District to process the submitted application.

B. Map or Drawing:
1. A site map or drawing of existing and proposed conditions including:
    a. North arrow, scale, date
    b. Legend of symbols or key notes
    c. General location or site map
    d. Property boundaries, lot lines, and drainage easements
    e. Benchmark
    f. Excavations, grades, paved areas, pond elevations, structures and utilities
    g. Site drainage and topography, including slopes, surface water, wetlands, drainage patterns, and watershed boundaries
    h. Location of existing vegetative cover
2. Location and types of BMPs
3. BMP installation details (or reference to approved BMP Manual or Installation Guide)
4. Location and schedule of soil disturbance, including stockpiles
5. Final stabilization measures

2170.060. Construction.

2170.061. Stormwater Pollution Prevention Plan Construction Compliance. During the Construction Activity allowed under the Special Permit and/or approved Improvement Plans, the Applicant shall be responsible for compliance with the Special Permit and Approved Stormwater Pollution Prevention Plan.

2170.062. Responsible Person. During the Construction Activity allowed under the Special Permit and/or approved Improvement Plans, the Responsible Person shall be the individual responsible for implementing, maintaining, and inspecting the BMPs, any other requirements of the Approved Stormwater Pollution Prevention Plan, and the provisions of this Section. The Responsible Person shall be considered the Applicant's representative on all matters pertaining to the Approved SWPPP. During the Construction Activity the Responsible Person shall be responsible for, at a minimum:

A. Ensuring that the control measures have been implemented as shown on the Approved SWPPP and the control measures meet the Approved SWPPP or achieve the function for which they were designed.

B. Overseeing or implementing BMPs to contain Materials onsite and out of water bodies or storm drainage systems.

C. Protecting storm water inlets that are functioning during construction so that sediment-laden water cannot enter the inlets without first being treated.

D. Implementing, documenting, and following a regular maintenance and inspection schedule to include inspection of all BMPs within 24 hours of a rainfall event.

E. Minimizing the deposition and tracking of mud, dirt, sand, gravel, rock or debris on the Highway. The Applicant shall be responsible for all clean-up of the Public rights-of-way necessitated from any tracking or depositing of mud, dirt, sand, gravel, rock or debris.

F. Maintaining all gutters free and unobstructed for the full depth of the adjacent curb and for at least one foot away from the face of the curb at the gutter line, except for BMPs installed and implemented in accordance with an Approved Site Plan. Construction ramps shall not hinder the flow of storm water to and through the existing system and must be constructed of a material that will not erode or deteriorate under adverse conditions.

G. Ensuring no debris, dirt, aggregates or excavated materials, or construction supplies shall be placed on the Public right-of-way unless permitted by the Highway District or other controlling entity

H. Ensuring BMPs are implemented to control non-storm water discharges such as vehicle and equipment wash water, including concrete washout water; slurries from concrete cutting and coring operations or grinding operations; slurries from concrete mixing operations; and sanitary and septic wastes.

I. Ensuring BMPs are implemented to manage solid and hazardous materials and waste.

J. Ensuring that any soil, waste or other Materials that enter the Public right-of-way and storm drain system are removed.

K. Ensuring all temporary BMPs are removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized within thirty (30) days from removal of the temporary measures. All existing permanent storm drain facilities shall be cleaned and repaired, if necessary, to pre-construction conditions.

L. Ensuring BMPs are in place to protect any nearby MS4 in the event of a Material non-containment or Pollutant spill at the Construction Site.

2170.063. Stormwater Pollution Prevention Plan Modification. If during the Construction Activity modification of the Approved Stormwater Pollution Prevention Plan is determined necessary by the Responsible Person to meet the intent of this Section and the Stormwater Pollution Prevention Plan, the Responsible Person shall implement the modification, document the modification in the Stormwater Pollution Prevention Plan and inspection records, and notify the Highway District by providing a copy of the SWPPP change and inspection record. If the Highway District determines the modification is not acceptable, the Highway District shall follow the provisions of Sub-Section 2170.033.

2170.064. Construction Site and Records Access. The Highway District inspectors shall be given safe access to inspect for compliance with approved Stormwater Pollution Prevention Plan and shall be furnished with all such information, documentation, and assistance by the Responsible Person as is necessary to make such inspections as may be required.

2170.070 Post-Construction Stormwater Management

2170.071 Requirement. The conditions of this section apply to any Development or Redevelopment as defined in Section 2170.020, that disturbs greater than or equal to one acre, or disturbs less than one acre but is a part of larger common plan of development or sale, where the disturbed land lies within the Highway District's public right-of-way or is

proposed or intended to be dedicated or conveyed to the Highway District as public right-of-way. Further, the conditions of this section apply only to those Development or Redevelopment projects that result in a discharge to the MS4 under the jurisdiction of the Highway District.

2170.072 Background. As an owner/operator of a small MS4 which discharges to waters of the U.S., the Highway District was required to obtain a National Pollution Discharge Elimination System (NPDES) permit from the Environmental Protection Agency (EPA) under Phase II of the NPDES program. This permit authorizes the discharge of stormwater runoff to receiving waters of the U.S., with conditions that include the need to "ensure controls are enacted which prevent or minimize water quality impacts from newly developed or re-developed areas."

The MS4 within the Highway District's NPDES permit area currently drains to either the Lower Boise River or Lake Lowell watersheds, both of which are part of the Snake River watershed. Both of these water bodies have been listed as having impaired water quality by the Idaho Department of Environmental Quality (IDEQ), and Total Maximum Daily Loads (TMDLs) for pollutants of concern have been established which define pollutant levels that are believed to be adequate to improve the water quality in these watersheds to a sufficient degree to support the beneficial uses intended. Implementation plans have been prepared for certain pollutants of concern within these drainages which establish methods and timelines to reduce the pollutant levels to those identified in the TMDLs. A summary these watersheds and pollutants of concern is provided in the table below:

Table 2170-1

Receiving Water	**Pollutants of Concern 2010 IDEQ Integrated Rpt**	**Implementation Plan**
Lower Boise River (Star to Notus Reach)	Nutrients Sediment Dissolved Oxygen Temperature Bacteria	Total Phosphorus, Dec 2008 December 2003 December 2003 December 2003 December 2003
Lake Lowell Subbasin	Nutrients	Total Phosphorus, Dec 2010
Middle Snake River-Succor Creek Subbasin*	Nutrients (Total Phosphorus) Temperature	None to Date

*Portions of the Highway District which drain directly to the Snake River are outside of the current permit area.

The implementation plans developed by IDEQ and EPA for the Lower Boise River and Lake Lowell Subbasins provide requirements for water quality controls for stormwater dischargers from new development or redevelopment designed to ultimately achieve the desired water quality standards in both the receiving waters and in the greater Snake River watershed.

These controls include a variety of Best Management Practices (BMPs) for reduction of sediments, dissolved oxygen, bacteria, and temperature, and a stated goal of a 50% reduction in Total Phosphorus (TP) concentrations in storm water discharge.

2170.073 Permanent Best Management Practices. Developments or Redevelopments meeting the requirements of this section shall incorporate Permanent Best Management Practices (BMPs), or combinations of Permanent BMPs designed to reduce or eliminate the pollutants of concern identified in Table 2170-1 from stormwater discharged to any MS4 under the jurisdiction of the Highway District.

The following Permanent BMPs are pre-approved for use:

A. Idaho Transportation Department Best Management Practices Manual- Post Construction BMPs PC-1 through PC-30, PC-32, PC-36, and PC-38. (August 2011)

B. Idaho Department of Environmental Quality Stormwater Best Mangement Practices for Idaho Cities and Counties, Volume 4: Permanent Stormwater Controls BMPs 1-9 and BMPs 11-20. (September 2005)

Other Permanent BMPs may be allowed for use at the sole discretion of the Highway District in accordance with Section 2170.078 below.

Permanent BMPs selected for use shall be demonstrated to be suitable for the site's physical and environmental characteristics, as generally described in the documentation accompanying the pre-approved Permanent BMPs.

2170.074 Pollutant Removal Efficiency. At a minimum, the Permanent BMP(s) selected shall be capable of providing a 50% reduction in Phosphorus, as described in the removal efficiency column in Table 2170-2, "Selection Matrix for Best Management Practices" on the following page.

The implementation plan prepared for the Lower Boise River for Sediment and Bacteria (December 2003) provides that these pollutant loads can be effectively reduced in stormwater discharges by the requirements for construction site stormwater discharges, the requirements contained in this section, and through other source controls and BMPs (such as public education, road maintenance activities, etc...). No specific numerical reduction for these pollutants is proposed.

Table 2170-2:

IDEQ Selection Matrix for Best Management Practices	Targeted Pollutants					Physical Constraints				
	Sediment (% removal)	Phosphorus (% removal)	Trace Metals	Bacteria	Petroleum Hydrocarbons	Drainage Area (Acres)	Maximum Slope (%)	Min. Depth to Bedrock (ft)	Depth to High Groundwater (ft)	SCS Soil Type
Stormwater Filters										
Vegetated Swale	65	15	fair	poor	fair	15	4	3	2	BCD
Bioretention Swale	75	30	good	fair	good	5	4	3	3	AB
Vegetative Filter Strip	50	40	fair	fair	fair	5	6	5	3	BCD
Sand Filter	85	55	fair	fair	fair	5-50	6	3	3	n/a
Compost Filter	95	40	good	fair	good	1	6	n/a	n/a	n/a
Catchbasin Insert	35	5	fair	poor	fair	0.1	6	n/a	n/a	n/a
Media Filter	Per Manufacturer's Specifications									
Infiltration Facilities										
Infiltration Trench	75	65	good	good	good	10	15	3	3	AB
Bioretention Basin	90	75	good	good	good	5	2	3	3	AB
Porous Pavement*	85	64	good	good	fair	0.25-10	2	2-5	2-5	AB
Detention Facilities										
Wet Pond (Conventional Piltants)	80	45	good	fair	fair	15-20	10	3	3	AB
Wet Pond (nutrient control)	80	65	good	fair	fair	5-20	5	3	2	CD
Wet Extended Detention Pond	80	65	good	fair	fair	10-50	10	3	2	CD
Dry Extended Detention Pond	45	25	fair	poor	fair	10-50	10	6	4	ABC
Biodetention Basin	75	45	good	fair	good	25-50	5	3	2	CD
Presettling/ Sedimentation Basin	60	30	fair	poor	poor	25-50	5	3	2	CD
Wet vault/tank	60	30	fair	poor	poor	5	15	12	12	ABC
Other Structural Controls										
Oil/Water Separator	15	5	fair	poor	good	1	15	8	8	ABC
Swirl Concentrator	35	15-20	fair	poor	fair	Per Manufacturer's Specifications				n/a
Level Spreader	n/a	n/a	poor	poor	poor	5	1	n/a	n/a	ABCD

From Idaho Department of Environmental Quality Storm Water BMP Catalog- September 2005

*Porous Pavement not approved for use in public right-of-way

Pollutant Removal Efficiencies:
Good = very effective, removes > 70% of pollutant
Fair = moderately effective, removes 25-70% of pollutant
Poor = least effective, removes < 25% of pollutant

2170.075 Treatment Train. Where phosphorus removal efficiencies for BMPs selected for use do not satisfy the 50% reduction requirement, BMPs may be used in series to achieve the reduction goal. Some pre-approved Permanent BMPs require pre-treatment of stormwater, which shall require installation of a Stormwater Filter as defined in Table 2170-2 upstream of the Permanent BMP. For purposes of this Section, a Stormwater Filter shall also include an Oil/Water separator, a Swirl Concentrator, or other BMP or device which provides for removal of coarse sediments and floatable debris.

2170.076 Water Quality Storm. For Permanent BMPs required under this section, the design flow rate for treatment shall be determined using one-half (50%) of the 2-year storm precipitation rate for the time of concentration at the BMP inlet. Design treatment volume shall be calculated using one-half (50%) of the 2-year storm precipitation rate for a time of concentration of one (1) hour, or 0.20" over the tributary area. Use Idaho Transportation Department's Intensity-Duration Frequency curves for Zone A.

2170.077 Flow Attenuation. Offsite discharge of stormwater to an MS4 under the jurisdiction of the Highway District shall be limited to the pre-developed rate for the design storm as defined by Section 3070.010 of this manual. For Redevelopment, the pre-developed rate shall be calculated neglecting any impervious areas on the site, based on estimates of pre-development topography and vegetative cover.

2170.078 Maintenance. Stormwater controls and BMPs selected to meet the requirements of Section 2170 should be suitable for reasonable operation and maintenance by the owner/operator of the facilities. For most development or redevelopment projects, this will be the property owner or the homeowner's association in accordance with Section 3070.100. Consideration should be given in the selection and design of stormwater controls to ensure that the owner/operator can be reasonably expected to have the technical and financial capability to provide for the ongoing operation and maintenance of the system.

The design engineer shall prepare an Operation and Maintenance (O & M) manual for the stormwater system, and submit the plan for review by the Highway District at the time of final plan submittal. The O & M manual shall, at a minimum, contain a plan or schematic of the stormwater system, a list and description of the components, any necessary instructions for operation of the system, and detailed descriptions of required maintenance activities and maintenance intervals necessary to keep the system functioning as intended. The owner/operator/maintainer of each component shall be clearly defined. On final approval of the development plans, the design engineer shall provide the Highway District with one (1) hard copy and an electronic copy of the O & M manual.

2170.079 Alternative Technologies. Recognizing that stormwater management and treatment practices and technologies are continually evolving and improving, the Highway District may, at its sole discretion, approve BMPs or methods of treatment not considered in this section. Design engineers should provide the Highway District detailed documentation of any Permanent BMP proposed for use which are not pre-approved, including recommendations for design, construction, and maintenance of the facility, and engineering or scientific study of the pollutants targeted and typical efficiency of the BMP. Proprietary stormwater controls will be evaluated in similar fashion.

2170.080 References. The following documents were used in preparation of these requirements, and may be of use to designers or engineers in evaluating treatment options and selecting stormwater controls:

Pollution Sources, Allowable Loadings, and Recommended Treatments:

- *Lower Boise River TMDL- Subbasin Assessment, Total Maximum Daily Loads*, IDEQ, Revised Sept 29, 1999
- *Implementation Plan for the Lower Boise River TMDL*, IDEQ, December 2003
- *Sediment and Bacteria Allocations Addendum to the Lower Boise River TMDL*, IDEQ, April 2008
- *Lower Boise River Implementation Plan Total Phosphorus*, IDEQ, December 2008
- *Lake Lowell TMDL: Addendum to the Lower Boise River Subbasin Assessment and TMDLs*, IDEQ, September 2010

Best Management Practices for Stormwater Runoff:

- *Catalog of Stormwater Best Management Practices for Idaho Cities and Counties,* IDEQ, September 2005
- *Best Management Practices Manual,* Idaho Transportation Department, August 2011
- *NCHRP Report 565: Evaluation of Best Management Practices for Highway Runoff Control,* Transportation Research Board, 2006

- End Section 2170 -

EXHIBIT "B"

PLAN REVIEW CHECKLIST
STORMWATER POLLUTION PREVENTION PLANS

Date: _____
Project Location/Subdivision: _____
Applicant: _____ Phone: _____ Fax: _____
Plan Designer: _____ Phone: _____ Fax: _____

Reference the Highway Standards and Development Procedures for the Canyon County Highway Districts when completing plans and this checklist.

INCLUDED			SUBMITTAL ITEM
YES	NO	N/A	
			SWPPP GENERAL
			Phase Construction Activity
			Minimize clearing and grading.
			Waterway protection and drainage ways stabilization
			Soil stabilization
			Steep slope protection
			Controlling storm water flow on and across site
			Perimeter controls
			MS4 and inlet protection
			Sediment retention and dewatering practices
			Site Access controls
			Stockpiles erosion & sediment control
			NARRATIVE
			Name, address, title, and daytime and emergency phone numbers of Applicant
			Name, address, title, and daytime phone number of the Plan Designer
			Name, address, title, and daytime and emergency phone numbers of designated Responsible Person
			The location of the area included in the SWPPP and total area

INCLUDED			SUBMITTAL ITEM
YES	NO	N/A	
			Type of work, description of activities, sequence, duration, and potential pollutants
			Potential site discharge locations and receiving water or MS4
			Soils information
			BMP locations, maintenance schedule, and inspection schedule
			Water management controls
			Spill Prevention controls
			Dewatering methods and controls
			Inspection Checklist
			Final Stabilization
			BMP removal schedule
			Any additional information deemed necessary by the District to process the submitted application
			MAP OR DRAWING
			North arrow, scale, date
			Legend of symbols or key notes
			General location or site map
			Property boundaries, lot lines, and drainage easements
			Benchmark
			Excavations, grades, paved areas, pond elevations, structures and utilities
			Site drainage and topography, including slopes, surface water, wetlands, drainage patterns, and watershed boundaries
			Location of existing vegetative cover
			Location and types of BMPs
			BMP installation details (or reference to approved BMP Manual or Installation Guide)
			Location and schedule of soil disturbance, including stockpiles
			Final stabilization measures