



North Fork Payette River Watershed Coalition: Stormwater Management Work Group

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Ideal Outcome (Goals)	Top Priorities (Objectives)	Action Items (Tasks)	Notes, Examples, Research, Case Studies
<p>Healthy watershed, healthy land, healthy life ... for generations to come</p>	<p>1. Continuous Improvement a. We have plenty of Best Management Practices identified in publications. Implementation and verification need improvement. b. BMPs outlined by IDEQ in the 2000 Implementation Plan and Priority Strategies in the VC Waterways Management Plan have not been implemented.</p>	<p>1. Create a mechanism for county and city public works groups to continuously review and update Stormwater Best Management Practices (BMPs). 2. Designate a trained county point-person as Director for Stormwater Management specifically trained in stormwater programs.</p>	<p>New and innovative solutions to protect waterways from human impacts are developed annually and we as a community need to stay abreast of these changes.</p>
<p>A 'source to bloom' approach from nutrient runoff corrective measures at or near sources entering waterways. (Treat the cause, not the symptom).</p>	<p>2. Strategies a. Guiding principles: 1. Managing stormwater as a resource; 2. Preserving and utilizing existing natural features and systems; 3. Managing stormwater as close to the source as possible; 4. Sustaining the hydrologic balance of surface and groundwater; 5. Disconnecting, decentralizing, and distributing sources and discharges; 6. Slowing runoff down, and not speeding it up; 7. Preventing potential water quality and quantity problems; 8. Minimizing problems that cannot be avoided;</p>	<p>1. Develop a preconstruction checklist to be performed by the inspector and responsible person for the property owner. 2. Construction Stormwater BMP Checklist with code references. a. Obtain a grant to revise the county 1997 handout pamphlet 3. Look for funding to revise the County construction handout. 4. Low Impact Development (LID) techniques: <ul style="list-style-type: none"> • Low-impact cluster design subdivisions. • Infiltration Trench Bio-detention Areas (Rain Gardens) • Tree filter and vegetative strips, bioswale. </p>	<p>Key Components: 1. Procedural and Institutional Ordinances 2. Minimize site disturbance and preserve natural topography. 3. Low Impact Planning 4. Community Education 5. Protection of Sensitive Areas 6. Structural BMPs: Infiltration, erosion protection, filtration, perimeter controls.</p>

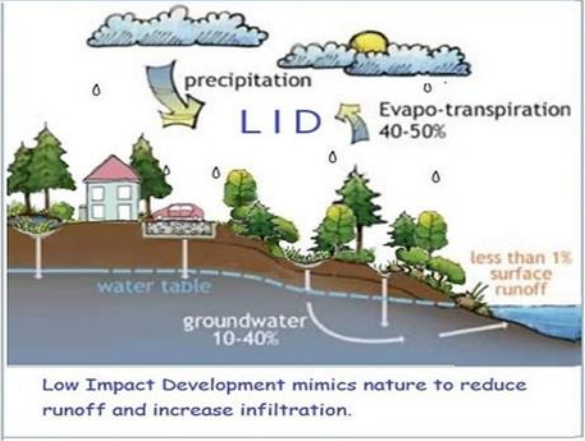


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	<p>9. Integrating stormwater management into the initial site design process; and 10. Inspecting and maintaining all BMPs.</p> <p>b. Promote Low Impact Development</p> <p>c. Create BMP Incentives. Identify a Contractor for the NFPRWC BMP Honor Award (or other incentives). It is to be recognized for the outstanding implementation of construction site best management practices during the past year. Press release recognition.</p> <p>d. Public Outreach and Education</p> <p>e. Nutrient capture, recycling or repurposing.</p> <p>f. Monitoring Program</p>	<ul style="list-style-type: none"> Activated Wetlands TSS/phosphorus filtration or treatment <p>5. Develop site design strategies that reduce impervious surfaces and promote infiltration. This includes conservation development, smart growth, and low-impact development (LID) techniques.</p> <p>6. Promote the facilitation of Nutrient Runoff Capture, Recycling, and Repurposing at Farm Edges and implement Harmful Algae Bloom Remediation Pilot Tests</p> <p>7. Minimum Goal: The first 0.8 inches of rainfall runoff from proposed impervious surfaces should be captured and infiltrated on the applicant's property.</p>	<p>Low-impact development (LID) - Aspects of LID include minimizing land disturbances, conserving natural features, reducing impervious cover, and incorporating distributed natural drainage systems to attenuate runoff.</p>  <p>Low Impact Development mimics nature to reduce runoff and increase infiltration.</p>
<p>Have educated contractors and agency personnel that automatically install stormwater BMPs as part of a typical project.</p>	<p>3. Education</p> <p>a. Uofl SEEP or other approved training for contractors working within 300 ft of a waterway high water line.</p> <p>b. Uofl Extension to host a training session in the Spring of 2025.</p> <p>c. McCall training every 3-years.</p> <p>d. Boise approved Erosion and Sediment Control (ESC) Responsible Person training.</p>	<ol style="list-style-type: none"> Meet with the County Commissioners to gain support. Develop a checklist for P&Z to hand out to builders. Revise the County BMP Handbook using the Boise and SEEP Stormwater Erosion & Sediment Control Field Guide. Simplify and include lots of graphics 	<p>Example programs established in McCall, Boise (Ada County), and Coeur d'Alene.</p> <p>Construction sites with significant earth disturbance must designate onsite personnel with valid Erosion and Sediment Control Responsible Person (RP) certification license(s) before permit issuance by the City of Boise, ACHD, City of Garden City, and City of Nampa.</p>



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	<p>4. Possible Change in Statutes</p> <p>a. Strengthen County Stormwater Codes, especially for lots less than 1 acre adjacent to impacted waterways. Enforce the 30-foot setback from property lines to include high water lines. VCC 9-5C-2</p> <p>b. Increase the number of trained stormwater inspectors</p>	<ol style="list-style-type: none"> 1. Require pre-construction site meeting with inspector, owner, and contractor before earthwork begins. 2. Require SEEP or equivalent training. 	
<p>Soil erosion and water quality are expected to worsen with increased drought and extreme precipitation events associated with climate change. Plan to limit adverse impacts.</p>	<p>5. Best Management Practices Goals</p> <p>a. 80% TSS removal</p> <p>b. Minimum BMP implementation consideration:</p> <ol style="list-style-type: none"> 1. Open Space Design 2. Vegetative Buffer Zones 3. Detention/Infiltration Basins 4. Grass Lines Swales 5. Silt Fencing or Straw Wattles 6. Diversion Dikes 7. Mulching and Hydroseeding 8. Slope Erosion Blanket (Jute Mesh) 9. Pet Waste Collection 	<p>BMPs concepts: Preserve, Source controls, Erosion protection, Water infiltration, Slow the flow, Sediment Controls.</p> <ol style="list-style-type: none"> 1. Encourage combining BMPs to improve effectiveness. "Treatment train" BMPs (i.e., several in a row or series). 2. Develop a phosphorous offset policy & fee where phosphorus is calculated using the latest version of the EPA Pollutant Load Estimation Tool (PLET) 	<p>In situations where the phosphorus load reductions cannot be met or demonstrated in a post-development scenario to achieve the pre-development phosphorus loadings, the developer or proponent shall be required to provide a phosphorus offsetting fee to the County.</p> <p>The Phosphorus Offsetting Fee will be calculated as follows:</p> <ul style="list-style-type: none"> . Offset Ratio = 2.5:1 . Offset Value = \$35,000/kg/year (reviewed annually) . Offset Calculation = (ratio (2.5) x P load in kg x \$35,000) <p>TSS removal using Gel Flocc</p>

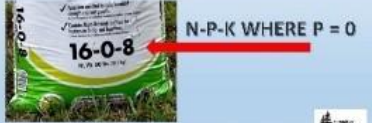



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<p>Address Public Concerns</p>	<p>6. Stormwater “Areas of Concern” were identified by the public</p> <ol style="list-style-type: none"> Urban Drainage Filtering Bank Erosion Fertilizer Usage Education Sewer Line Overflow during storm event reductions. 	<ol style="list-style-type: none"> Urban drainage needs consistent monitoring and better filtration. Identify bank erosion areas suitable for 319 funding. Develop an NPK where P=0 program. IDEQ is responsible for addressing sewer issues. 	<p>Lake Friendly Lawn Care Tip</p> <p>Go Phosphorus-Free Phosphorus occurs naturally in Valley County We do not need to add it to our lawns: It fuels algae blooms.</p>  <p>Please apply fertilizers sparingly.</p> <p>STORM DRAIN STENCILING</p>
<ul style="list-style-type: none"> • Early bloom warning indicators for community alert response. • Seasonal bloom and chemistry trend analysis. • Phytoplankton rise & succession. • Determine the effects of benthic cyanobacteria. • Impact of seasonal lake bottom-upwelling events. • Season-specific water treatment facility applications. • Homeland drinking water security. 	<p>7. Monitoring Program</p> <ol style="list-style-type: none"> Real time delivery of Lake Water Conditions using Buoys to monitor: <ul style="list-style-type: none"> ➤ Chlorophyll α (green algae) ➤ Phycocyanin (cyanobacteria) ➤ pH ➤ Turbidity ➤ Dissolved oxygen ➤ Temperature ➤ Specific conductance 	<p>Obtain funding for three buoys for each lake. Lake Cascade and Payette Lake.</p> 	<p>The alternatives, IDEQ sampling and Satellite Imagery, is not consistent or reliable. For example, during peak bloom time between July 11th and Sept 30th we were only able to see a dozen days clarity, because of hazardous forest fire smoke and cloud cover.</p> <p>WHO BENEFITS:</p> <ul style="list-style-type: none"> • Source Drinking Water Users • Recreation Community • Dept of Environmental Quality • Idaho Fish and Game • Fishing Industry • Waterways Decision-Makers • Researchers



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<ul style="list-style-type: none">• Insight and quantify the impacts of climate change.• Water temperature data to help understand how thermal conditions may influence lake salmonid distribution and abundance.• Baseline data for future remedial actions.• Supplement existing agency manpower and monitoring program limitations, and• Accurate, defensible data for all critical environmental research applications.			
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<p>Implementation of Agriculture BMPs per 2000 Implementation Plan and VC Waterway Management Plan Priority Strategy:</p> <p>LC 2b. “Work with NRCS and private landowners to implement grazing management plans to exclude livestock near streams and waterway shorelines, alternate water sources, and other conservation practices.”</p> <p>LC 2c. “Strengthen conservation practices from the impacts of grazing and return flood irrigation flows.”</p> <p>NF 3b. “Buffer from grazing uses”</p> <p>CW 5. “Managing upland uses within</p>	<p>The BMP approach for determining the measures needed to meet the agriculture phosphorus load reduction goal is based on a three-tier classification of lands as defined in the 2000 IDEQ Implementation Plan Appendix B “Cascade Reservoir Watershed Agricultural Source Implementation Plan”. Tiers were defined and lands classified considering agronomic, geomorphologic, and hydrologic characteristics of agricultural land in the watershed. The land-use tiers are:</p> <p>Tier 1 - All lands within 150 feet of either side of a stream.</p> <p>Tier 2 - Lowlands, mostly irrigated crops and pasture.</p> <p>Tier 3 - Uplands, mostly non-irrigated pasture.</p> <p>The Implementation plan addresses deferred grazing, fencing, irrigation systems, streambank and shoreline protection, filter strips, wetlands restoration, waste utilization, pest management, fertilizer usage, and sedimentation ponds.</p> <p>In addition, NRCS has stormwater conservation practice standards for Ag</p>	<p>Innovative agriculture stormwater solutions</p> <p>a. Promote the facilitation of Terrace Nutrient Runoff Capture, Recycling, and Repurposing at Farm Edges.</p> <p>b. Keep abreast of advances in Virtual Fencing for Riparian Management.</p> <div data-bbox="913 587 1429 813" data-label="Diagram"> </div> <ul style="list-style-type: none"> • Allows ranchers to move livestock with reduced labor • In some cases, can be less expensive than traditional fencing • Can be used in areas that are difficult to fence and provide alternative water for livestock. • Eliminates wildlife conflicts with traditional wire fencing • Can exclude cattle from areas of management concern • Prevents overgrazing and aids in soil carbon sequestration • Can limit undesired effects of grazing in riparian areas <p>c. Promote constructed wetlands to filter return water</p>	<div data-bbox="1467 351 2139 598" data-label="Image"> </div>
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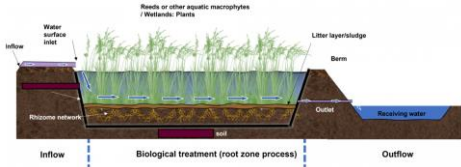


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<p>watersheds to protect water quality, including development, recreational access, weed control, forest management, farming, and grazing.”</p>	<p>industry. Programs managed by NRCS can generally be divided into two categories: technical assistance and financial assistance</p>	 <p>The diagram illustrates a cross-section of a constructed wetland. On the left, an "Inflow" pipe leads to a "Water surface inlet". Above the water, there are "Reeds or other aquatic macrophytes / Wetlands plants". Below the water surface, a "Rhizome network" is shown extending into the "soil". A "Berm" is located on the right side of the wetland. Below the soil, an "Outlet" pipe leads to "Receiving water". The process is labeled as "Biological treatment (root zone process)".</p>	
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