

SECTION G. ANTIDegradation ANALYSIS

This section must be completed where earth disturbance activities will be conducted in special protection or siltation-impaired watersheds.

Part 1 NONDISCHARGE ALTERNATIVES EVALUATION

The applicant must consider and describe any and all nondischarge alternatives for the entire project area which are environmentally sound and will:

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

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<p>Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide your analysis and attach additional sheets if necessary).</p> <p>The best possible surface locations were selected based on landowner agreements, minimization of environmental impacts, and engineering/constructability factors. The project's disturbed area will be limited to the area required for construction, and the duration of construction will be minimized to the extent practicable. Riparian forest buffers will be protected to the extent practicable during construction activities in the vicinity of stream crossings, where applicable. Surface sites were co-located with existing facilities where possible.</p>		<p>Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into your PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide your analysis and attach additional sheets if necessary)</p> <p>The best possible surface site locations were selected based on landowner agreements, minimization of environmental impacts, and engineering/constructability factors. The surface site will be restored to a meadow condition at approximate original contours, where possible, to maintain the pre-construction drainage patterns. Riparian forest buffers will be protected to the extent practicable, where applicable. Install geoweb topsoil reinforcement to promote infiltration and minimize compaction.</p>	
<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative configuration</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location of discharge</p> <p><input checked="" type="checkbox"/> Limited Disturbed Area</p> <p><input checked="" type="checkbox"/> Limiting Extent & Duration of Disturbance (Phasing, Sequencing)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input checked="" type="checkbox"/> Other <u>Co-locate with existing facilities where possible</u></p>		<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative configuration</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location of discharge</p> <p><input type="checkbox"/> Low Impact Development (LID / BSD)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input type="checkbox"/> Infiltration</p> <p><input type="checkbox"/> Water Reuse</p> <p><input checked="" type="checkbox"/> Other <u>Pre-construction drainage pattern intact where possible. Use geoweb to minimize compaction</u></p>	

Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.

If no, proceed to Part 2.

PART 2 ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.
 If no, proceed to Part 2.

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<p>Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?</p> <p style="padding-left: 40px;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, antidegradation analysis is complete.</p>			

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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

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If no, proceed to Part 2.

PART 2 ANTIDegradation BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

E & S Plan	<i>Official Use Only</i>	PCSM/Site Restoration Plan	<i>Official Use Only</i>
<p><input checked="" type="checkbox"/> Treatment BMPs:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sediment basin with skimmer <input type="checkbox"/> Sediment basin ratio of 4:1 or greater (flow length to basin width) <input type="checkbox"/> Sediment basin with 4-7 day detention <input type="checkbox"/> Flocculants <input checked="" type="checkbox"/> Compost Filter Socks <input type="checkbox"/> Compost Filter Sock Sediment Basin <input checked="" type="checkbox"/> RCE w/ Wash Rack <p><input checked="" type="checkbox"/> Land disposal:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vegetated filters <input type="checkbox"/> Riparian buffers <150ft. <input type="checkbox"/> Riparian Forest Buffer <150ft. <input checked="" type="checkbox"/> Immediate stabilization <p><input checked="" type="checkbox"/> Pollution prevention:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> PPC Plans <input type="checkbox"/> Street sweeping <input type="checkbox"/> Channels, collectors and diversions lined with permanent vegetation, rock, geotextile or other non-erosive materials <p><input type="checkbox"/> Stormwater reuse technologies:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sediment basin water for dust control <input type="checkbox"/> Sediment basin water for irrigation <p><input checked="" type="checkbox"/> <u>Other Erosion control blankets placed on steep slopes and areas within 100-feet of streams, where applicable.</u></p>		<p><input type="checkbox"/> Treatment BMPs:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Infiltration Practices <input type="checkbox"/> Wet ponds <input type="checkbox"/> Created wetland treatment systems <input type="checkbox"/> Vegetated swales <input type="checkbox"/> Manufactured devices <input type="checkbox"/> Bio-retention/infiltration <input type="checkbox"/> Green Roofs <p><input type="checkbox"/> Land disposal:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vegetated filters <input type="checkbox"/> Riparian Buffers <150ft. <input type="checkbox"/> Riparian Forest Buffer <150ft. <input type="checkbox"/> Disconnection of roof drainage <input type="checkbox"/> Bio-retention/bio-infiltration <p><input type="checkbox"/> Pollution prevention:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Street sweeping <input type="checkbox"/> Nutrient, pesticide, herbicide or other chemical application plan alternatives <input type="checkbox"/> PPC Plans <input type="checkbox"/> Non-structural Practices <input type="checkbox"/> Restoration BMPs <p><input type="checkbox"/> Stormwater reuse technologies:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Divert rainwater into impoundment <input type="checkbox"/> Underground storage <input type="checkbox"/> Spray/Drip Irrigation <p><input type="checkbox"/> Other</p>	

SECTION G. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in special protection or siltation-impaired watersheds.

Part 1 NONDISCHARGE ALTERNATIVES EVALUATION

The applicant must consider and describe any and all nondischarge alternatives for the entire project area which are environmentally sound and will:

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

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<p>Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide your analysis and attach additional sheets if necessary)</p> <p>Alternative Siting - Pipeline & access locations limit use of this alternative</p> <p>Limited Disturbed Areas - simple to utilize by limiting disturbance to construction areas only</p> <p>Limiting E&D of disturbance - Nature of construction limits use of this alternative</p> <p>Riparian buffers - No buffer available</p> <p>Riparian Forest Buffer - No buffer available</p>		<p>Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into your PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide your analysis and attach additional sheets if necessary)</p> <p>Alternative Siting - Pipeline & access locations limit use of this alternative</p> <p>Low Impact Development - Nature of construction limits use of this alternative</p> <p>Riparian Buffers - No buffer available</p> <p>Riparian Forest Buffer - No buffer available</p> <p>Infiltration - Space available, rates poor so underdrains used</p> <p>Water Reuse - Nature of construction limits use of this alternative</p>	
<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p> <input type="checkbox"/> Alternative location</p> <p> <input type="checkbox"/> Alternative configuration</p> <p> <input type="checkbox"/> Alternative location of discharge</p> <p><input checked="" type="checkbox"/> Limited Disturbed Area</p> <p><input type="checkbox"/> Limiting Extent & Duration of Disturbance (Phasing, Sequencing)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input type="checkbox"/> Other _____</p>		<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p> <input type="checkbox"/> Alternative location</p> <p> <input type="checkbox"/> Alternative configuration</p> <p> <input type="checkbox"/> Alternative location of discharge</p> <p><input type="checkbox"/> Low Impact Development (LID / BSD)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input checked="" type="checkbox"/> Infiltration</p> <p><input type="checkbox"/> Water Reuse</p> <p><input type="checkbox"/> Other _____</p>	

Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.
 If no, proceed to Part 2.

PART 2 ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

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<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative configuration</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location of discharge</p> <p><input checked="" type="checkbox"/> Limited Disturbed Area</p> <p><input checked="" type="checkbox"/> Limiting Extent & Duration of Disturbance (Phasing, Sequencing)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input type="checkbox"/> Other _____</p>		<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative configuration</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location of discharge</p> <p><input type="checkbox"/> Low Impact Development (LID / BSD)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input checked="" type="checkbox"/> Infiltration</p> <p><input type="checkbox"/> Water Reuse</p> <p><input checked="" type="checkbox"/> Other <u>re-construction drainage pattern intact within the right of way</u></p>	

Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.
 If no, proceed to Part 2.

PART 2 ANTIDegradation BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

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<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative configuration</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location of discharge</p> <p><input checked="" type="checkbox"/> Limited Disturbed Area</p> <p><input checked="" type="checkbox"/> Limiting Extent & Duration of Disturbance (Phasing, Sequencing)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input type="checkbox"/> Other _____</p>		<p>Nondischarge BMPs</p> <p><input type="checkbox"/> Alternative Siting</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative configuration</p> <p style="padding-left: 20px;"><input type="checkbox"/> Alternative location of discharge</p> <p><input type="checkbox"/> Low Impact Development (LID / BSD)</p> <p><input type="checkbox"/> Riparian Buffers (150 ft. min.)</p> <p><input type="checkbox"/> Riparian Forest Buffer (150 ft. min.)</p> <p><input checked="" type="checkbox"/> Infiltration</p> <p><input type="checkbox"/> Water Reuse</p> <p><input checked="" type="checkbox"/> Other <u>re-construction drainage pattern intact within the right of way</u></p>	

Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.
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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?

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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.

If no, proceed to Part 2.

PART 2 ANTIDegradation BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

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<p>Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?</p> <p style="padding-left: 40px;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, antidegradation analysis is complete.</p>			

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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.

If no, proceed to Part 2.

PART 2 ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

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<p><input checked="" type="checkbox"/> Treatment BMPs:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sediment basin with skimmer <input type="checkbox"/> Sediment basin ratio of 4:1 or greater (flow length to basin width) <input type="checkbox"/> Sediment basin with 4-7 day detention <input type="checkbox"/> Flocculants <input checked="" type="checkbox"/> Compost Filter Socks <input type="checkbox"/> Compost Filter Sock Sediment Basin <input checked="" type="checkbox"/> RCE w/ Wash Rack <p><input checked="" type="checkbox"/> Land disposal:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vegetated filters <input type="checkbox"/> Riparian buffers <150ft. <input type="checkbox"/> Riparian Forest Buffer <150ft. <input checked="" type="checkbox"/> Immediate stabilization <p><input checked="" type="checkbox"/> Pollution prevention:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> PPC Plans <input type="checkbox"/> Street sweeping <input type="checkbox"/> Channels, collectors and diversions lined with permanent vegetation, rock, geotextile or other non-erosive materials <p><input type="checkbox"/> Stormwater reuse technologies:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sediment basin water for dust control <input type="checkbox"/> Sediment basin water for irrigation <p><input checked="" type="checkbox"/> <u>Other Rock construction entrances with wash racks, compost filter socks, erosion control blanket placed within 100-feet of streams, where applicable, and on steep slopes.</u></p>		<p><input type="checkbox"/> Treatment BMPs:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Infiltration Practices <input type="checkbox"/> Wet ponds <input type="checkbox"/> Created wetland treatment systems <input type="checkbox"/> Vegetated swales <input type="checkbox"/> Manufactured devices <input type="checkbox"/> Bio-retention/infiltration <input type="checkbox"/> Green Roofs <p><input type="checkbox"/> Land disposal:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vegetated filters <input type="checkbox"/> Riparian Buffers <150ft. <input type="checkbox"/> Riparian Forest Buffer <150ft. <input type="checkbox"/> Disconnection of roof drainage <input type="checkbox"/> Bio-retention/bio-infiltration <p><input checked="" type="checkbox"/> Pollution prevention:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Street sweeping <input type="checkbox"/> Nutrient, pesticide, herbicide or other chemical application plan alternatives <input checked="" type="checkbox"/> PPC Plans <input type="checkbox"/> Non-structural Practices <input checked="" type="checkbox"/> Restoration BMPs <p><input type="checkbox"/> Stormwater reuse technologies:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Divert rainwater into impoundment <input type="checkbox"/> Underground storage <input type="checkbox"/> Spray/Drip Irrigation <p><input type="checkbox"/> Other _____</p>	

SECTION G. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in special protection or siltation-impaired watersheds.

Part 1 NONDISCHARGE ALTERNATIVES EVALUATION

The applicant must consider and describe any and all nondischarge alternatives for the entire project area which are environmentally sound and will:

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

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Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during and after construction?
 Yes No

If yes, antidegradation analysis is complete.

If no, proceed to Part 2.

PART 2 ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)

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