Options for Complying with the No Direct Discharge to SA Waters Provision of the Coastal Stormwater Rule

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		Initials	Date
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Effective immediately, the Division of Energy, Mineral and Land Resources will consider the options below as meeting the "no direct stormwater discharge" requirements. This guidance is intended to clarify the options that are available under current rule language for releasing stormwater in SA waters as specified under Session Law 2008-211.

Option	Explanation
1 Non-discharging BMPs	Treat the entire drainage area in an infiltration system, permeable pavement or bioretention cell without underdrains. Release inflow volume in excess of the design storm at a non-erosive velocity at the edge of the buffer.
2 Discharging BMPs other than wet ponds	Treat the entire drainage area in a stormwater wetland, sand filter or bioretention cell with underdrains. Provide effective infiltration* for the design storm discharge from the BMP. Release volume in excess of the design storm at a non-erosive velocity at the edge of the buffer.
3 90% TSS removal wet ponds	Two options: A. Treat the entire drainage area in a 90% TSS removal wet pond. Then, provide a secondary BMP to handle the discharge from the pond (SHWT separation is not required for the secondary BMP). Release all stormwater from the secondary BMP at a non-erosive velocity at the edge of the buffer. B. Treat the entire drainage area in a 90% TSS removal wet pond. Provide effective infiltration* for the design storm discharge from the pond. Release volume in excess of the design storm at a non-erosive velocity at the edge of the buffer.

4 **85% TSS removal wet ponds**	Two options: A. Treat the entire drainage area in an 85% TSS removal wet pond. Then, provide a secondary BMP to handle the discharge from the pond (SHWT separation is not required for the secondary BMP). Provide effective infiltration* for the design storm discharge from the secondary BMP. Release volume in excess of the design storm at a non-erosive velocity at the edge of the buffer. B. Treat at least 75% of the drainage area in secondary BMP(s). Then provide an 85% TSS removal wet pond to treat the discharge from the BMPs and the balance of the drainage area. Provide effective infiltration* for the design storm discharge from the secondary BMP. Release volume in excess of the design storm at a non-erosive velocity at the edge of the buffer.
5 **Low Density**	Two options: A. Disconnect 60% or more of the built-upon areas. Release all stormwater at a non-erosive velocity at the edge of the buffer. B. If less than 60% of the built-upon areas are disconnected, then provide effective infiltration* for the design storm flows. Release volume in excess of the design storm at a non-erosive velocity at the edge of the buffer.

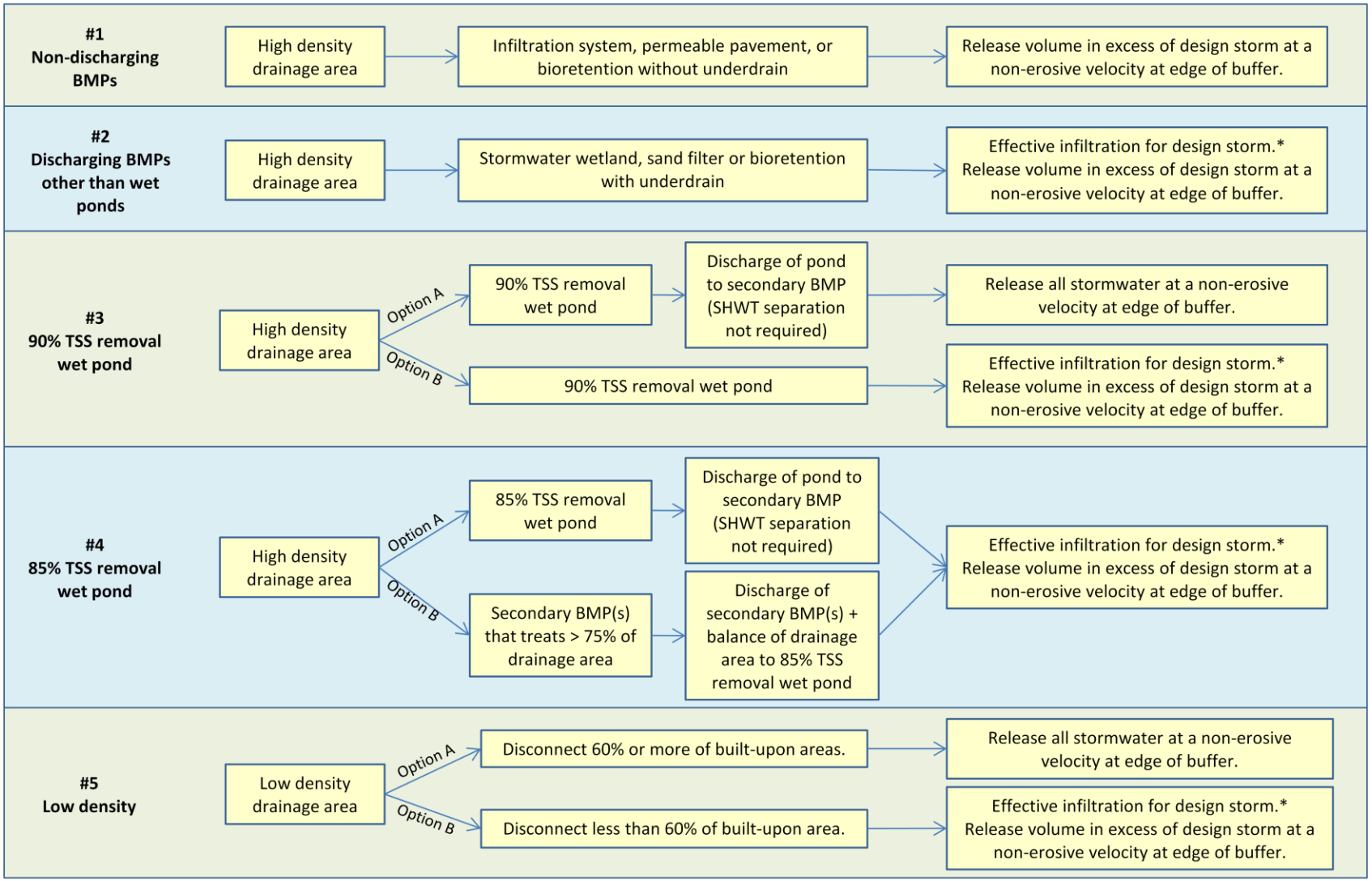
* Effective infiltration can be achieved by one of these options:

1. A LS-VFS designed per the BMP Manual,
2. A swale that fans out at natural grade, releasing stormwater at a low depth and velocity, or
3. A non-erosive discharge to a natural wetland that does not contain a conveyance to SA waters.

See the next page for the same information in a flow chart format.

If you have questions about this guidance, please do not hesitate to contact Annette Lucas at (919) 807-6381 or annette.lucas@ncdenr.gov.

DRAFT Options for Providing No Direct Discharge to SA Waters



- Options to achieve **effective infiltration:**
  1) A LS-VFS designed per the BMP Manual,
  2) A swale that fans out at natural grade, releasing stormwater at a low depth and velocity, or
  3) A non-erosive discharge to a natural wetland that does not contain a conveyance to SA waters.