Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	RSIS			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	5:21-7.1(d)1		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	5:21-7.1(d)2		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	5:21-7.1(d)3		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	5:21-7.1(d)4		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	5:21-7.1(d)5		x	
Minimize soil compaction	7:8-5.3(b)6	5:21-7.1(d)6		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	5:21-7.1(d)7		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	5:21-7.1(d)8		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	5:21-7.1(d)9		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	5:21-7.7		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv				x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	5:21-7.5		x	
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii				
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii				
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	5:21-7.6		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)				x
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)			x	
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)			x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	5:21-7.2(c)1		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	5:21-7.2(a)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	5:21-7.2(a)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	5:21-7.2(e)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	5:21-7.8(c)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	5:21-7.7	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1			x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	5:21-7.8(d)1ii		x	
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	5:21-7.9	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)		x		
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	5:21-7.8(d)6vii			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	5:21-7.8(d)6viii	x		
			14%	68%	18%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	RSIS			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	5:21-7.1(d)1		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	5:21-7.1(d)2		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	5:21-7.1(d)3		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	5:21-7.1(d)4		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	5:21-7.1(d)5		x	
Minimize soil compaction	7:8-5.3(b)6	5:21-7.1(d)6		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	5:21-7.1(d)7		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	5:21-7.1(d)8		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	5:21-7.1(d)9		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	5:21-7.7		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv				x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following		5:21-7.5		x	
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events	7:8-5.4(a)3i				
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii				
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii				
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	5:21-7.6		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)				x
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)				x
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)			x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	5:21-7.2(c)1		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	5:21-7.2(a)	x		
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	5:21-7.2(a)	x		
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	5:21-7.2(e)	x		
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	5:21-7.8(c)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	5:21-7.7		x	
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1		x		
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	5:21-7.8(d)1ii		x	
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	5:21-7.9		x	
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)				x
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	5:21-7.8(d)6vii			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	5:21-7.8(d)6viii	x		
			18%	61%	21%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	Local Ordinance			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	158-4(e)(2)a		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	158-4(e)(2)b	x		
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	158-4(e)(2)c		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	158-4(e)(2)d		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e		x	
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f	x		
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	158-4(e)(2)g		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	158-4(e)(2)h	x		
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	158-4(e)(2)i			x
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	158-4(f)(1)b1A		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)	158-4(f)(1)b1B			
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv	158-4(f)(1)b4			x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1			
or				x	
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii	158-4(f)(1)c2			
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii	158-4(f)(1)c3			
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)	158-4(g)(3)			x
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)			x
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)	158-4(g)(5)		x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograpl	7:8-5.6(a)1i	158-5(a)(1)a		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	158-5(a)(1)b			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	158-5(a)(2)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	158-5(a)(3)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1	158-6(a)1		x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	158-10(b)(1)		x	
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)	158-10(b)(2)		x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	158-8(b)(3)b	x		
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c	x		
			25%	54%	21%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	Local Ordinance			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	158-4(e)(2)a		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	158-4(e)(2)b		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	158-4(e)(2)c		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	158-4(e)(2)d		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e		x	
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	158-4(e)(2)g		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	158-4(e)(2)h		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	158-4(e)(2)i		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	158-4(f)(1)b1A	x		
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)	158-4(f)(1)b1B			
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv	158-4(f)(1)b4			x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1			
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii	158-4(f)(1)c2		x	
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii	158-4(f)(1)c3			
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)	x		
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)	158-4(g)(3)	x		
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)	x		
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)	158-4(g)(5)		x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	158-5(a)(1)a		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	158-5(a)(1)b			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	158-5(a)(2)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	158-5(a)(3)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)	x		
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1	158-6(a)1	x		
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	158-10(b)(1)	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)	158-10(b)(2)	x		
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	158-8(b)(3)b			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c	x		
			39%	47%	14%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	RSIS			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	5:21-7.1(d)1	x		
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	5:21-7.1(d)2	x		
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	5:21-7.1(d)3	x		
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	5:21-7.1(d)4	x		
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	5:21-7.1(d)5	x		
Minimize soil compaction	7:8-5.3(b)6	5:21-7.1(d)6	x		
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	5:21-7.1(d)7		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	5:21-7.1(d)8		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	5:21-7.1(d)9			x
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	5:21-7.7	x		
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv				x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	5:21-7.5	x		
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii				
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii				
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	5:21-7.6	x		
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)		x		
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)		x		
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)		x		
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	5:21-7.2(c)1		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of application	7:8-5.6(a)2	5:21-7.2(a)			x
Pre-construction stormwater runoff accounts for all significant land features and structures	7:8-5.6(a)3	5:21-7.2(a)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	5:21-7.2(e)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	5:21-7.8(c)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	5:21-7.7	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1			x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	5:21-7.8(d)1ii	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	5:21-7.9	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)		x		
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	5:21-7.8(d)6vii			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	5:21-7.8(d)6viii	x		
			61%	21%	18%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	RSIS			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	5:21-7.1(d)1	x		
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	5:21-7.1(d)2		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	5:21-7.1(d)3		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	5:21-7.1(d)4		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	5:21-7.1(d)5		x	
Minimize soil compaction	7:8-5.3(b)6	5:21-7.1(d)6		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	5:21-7.1(d)7		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	5:21-7.1(d)8		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	5:21-7.1(d)9		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	5:21-7.7		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv				x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	5:21-7.5		x	
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii				
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii				
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	5:21-7.6		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)				x
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)			x	
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)			x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograpl	7:8-5.6(a)1i	5:21-7.2(c)1		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	5:21-7.2(a)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	5:21-7.2(a)	x		
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	5:21-7.2(e)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	5:21-7.8(c)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	5:21-7.7			x
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1			x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	5:21-7.8(d)1ii		x	
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	5:21-7.9		x	
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)			x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	5:21-7.8(d)6vii	x		
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	5:21-7.8(d)6viii	x		
			14%	68%	18%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	Local Ordinance			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	158-4(e)(2)a		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	158-4(e)(2)b		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	158-4(e)(2)c		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	158-4(e)(2)d		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e		x	
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	158-4(e)(2)g		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	158-4(e)(2)h		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	158-4(e)(2)i		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	158-4(f)(1)b1A		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)	158-4(f)(1)b1B			
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv	158-4(f)(1)b4	x		
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1			
or				x	
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii	158-4(f)(1)c2			
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii	158-4(f)(1)c3			
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)	x		
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)	158-4(g)(3)	x		
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)			x
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)	158-4(g)(5)		x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	158-5(a)(1)a		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	158-5(a)(1)b			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	158-5(a)(2)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	158-5(a)(3)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)		x	
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1	158-6(a)1		x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2		x	
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	158-10(b)(1)		x	
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)	158-10(b)(2)		x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	158-8(b)(3)b			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c			x
			15%	71%	14%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	Local Ordinance			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	158-4(e)(2)a		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	158-4(e)(2)b		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	158-4(e)(2)c		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	158-4(e)(2)d		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e		x	
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	158-4(e)(2)g		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	158-4(e)(2)h		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	158-4(e)(2)i		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	158-4(f)(1)b1A	x		
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)	158-4(f)(1)b1B			
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv	158-4(f)(1)b4		x	
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1			
or				x	
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii	158-4(f)(1)c2			
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii	158-4(f)(1)c3			
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)	x		
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)	158-4(g)(3)	x		
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)			x
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)	158-4(g)(5)		x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograpl	7:8-5.6(a)1i	158-5(a)(1)a			
or				x	
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	158-5(a)(1)b			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	158-5(a)(2)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	158-5(a)(3)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1	158-6(a)1	x		
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	158-10(b)(1)	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)	158-10(b)(2)		x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	158-8(b)(3)b			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c			x
			25%	57%	18%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	Local Ordinance			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	158-4(e)(2)a			x
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	158-4(e)(2)b		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	158-4(e)(2)c		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	158-4(e)(2)d		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e		x	
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	158-4(e)(2)g		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	158-4(e)(2)h		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	158-4(e)(2)i		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	158-4(f)(1)b1A		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)	158-4(f)(1)b1B			
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv	158-4(f)(1)b4			x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1			
or				x	
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii	158-4(f)(1)c2			
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii	158-4(f)(1)c3			
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)	158-4(g)(3)			x
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)			x
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)	158-4(g)(5)		x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	158-5(a)(1)a			
or				x	
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	158-5(a)(1)b			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	158-5(a)(2)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	158-5(a)(3)	x		
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)		x	
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1	158-6(a)1		x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2		x	
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	158-10(b)(1)		x	
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)	158-10(b)(2)		x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	158-8(b)(3)b			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c			x
			7%	64%	29%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	RSIS			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	5:21-7.1(d)1		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	5:21-7.1(d)2		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	5:21-7.1(d)3		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	5:21-7.1(d)4		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	5:21-7.1(d)5		x	
Minimize soil compaction	7:8-5.3(b)6	5:21-7.1(d)6		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	5:21-7.1(d)7		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	5:21-7.1(d)8		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	5:21-7.1(d)9		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	5:21-7.7			x
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv				x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	5:21-7.5		x	
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii				
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii				
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	5:21-7.6		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)			x	
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)			x	
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)			x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	5:21-7.2(c)1		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	5:21-7.2(a)		x	
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	5:21-7.2(a)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	5:21-7.2(e)	x		
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	5:21-7.8(c)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	5:21-7.7			x
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1			x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	5:21-7.8(d)1ii	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	5:21-7.9	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)			x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	5:21-7.8(d)6vii		x	
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	5:21-7.8(d)6viii		x	
			11%	75%	14%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	RSIS			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	5:21-7.1(d)1		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	5:21-7.1(d)2		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	5:21-7.1(d)3		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	5:21-7.1(d)4		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	5:21-7.1(d)5		x	
Minimize soil compaction	7:8-5.3(b)6	5:21-7.1(d)6	x		
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	5:21-7.1(d)7		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	5:21-7.1(d)8		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	5:21-7.1(d)9		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	5:21-7.7		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv				x
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events	7:8-5.4(a)3i	5:21-7.5		x	
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii				
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii				
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	5:21-7.6		x	
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)		x		
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)			x	
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)			x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	5:21-7.2(c)1		x	
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	5:21-7.2(a)		x	
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	5:21-7.2(a)		x	
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	5:21-7.2(e)	x		
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	5:21-7.8(c)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	5:21-7.7	x		
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1			x	
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	5:21-7.8(d)1ii	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	5:21-7.9	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)			x	
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	5:21-7.8(d)6vii			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	5:21-7.8(d)6viii		x	
			21%	68%	11%

Summary of Regulation	Citation		Compliant	Non-Compliant	NA
	NJAC	Local Ordinance			
Nonstructural stormwater management strategies:					
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment los	7:8-5.3(b)1	158-4(e)(2)a		x	
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surface	7:8-5.3(b)2	158-4(e)(2)b		x	
Maximize the protection of natural drainage features and vegetatior	7:8-5.3(b)3	158-4(e)(2)c		x	
Minimize the decrease in the "time of concentration" from pre-construction to post-constructio	7:8-5.3(b)4	158-4(e)(2)d		x	
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e		x	
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f		x	
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticide	7:8-5.3(b)7	158-4(e)(2)g		x	
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated area:	7:8-5.3(b)8	158-4(e)(2)h		x	
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runo	7:8-5.3(b)9	158-4(e)(2)i		x	
Erosion control, groundwater recharge and runoff quantity standards:					
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either					
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the sit	7:8-5.4(a)2i(1)	158-4(f)(1)b1A		x	
or					
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrate	7:8-5.4(a)2i(2)	158-4(f)(1)b1B			
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts	7:8-5.4 (a)2iv	158-4(f)(1)b4		x	
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following					
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-constructior runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1			
or					
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site	7:8-5.4(a)3ii	158-4(f)(1)c2	x		
or					
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rate	7:8-5.4(a)3iii	158-4(f)(1)c3			
Stormwater runoff quality standards					
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)	x		
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reductio	7:8-5.5(c)	158-4(g)(3)			x
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)	x		
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the wate quality design storm.	7:8-5.5(e)	158-4(g)(5)		x	
Calculation of stormwater runoff and groundwater recharge					
The design engineer shall calculate runoff using one of the following methods					
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograpl	7:8-5.6(a)1i	158-5(a)(1)a	x		
or					
The Rational Method for peak flow and the Modified Rational Method for hydrograph computation:	7:8-5.6(a)1ii	158-5(a)(1)b			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of applicatior	7:8-5.6(a)2	158-5(a)(2)			x
Pre-construction stormwater runoff accounts for all significant land features and structure:	7:8-5.6(a)3	158-5(a)(3)	x		
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)	x		
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)			x
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)			x
Standards for structural stormwater management measures					
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc	7:8-5.7(a)1	158-6(a)1	x		
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2	x		
Maintenance requirements					
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major developmen	7:8-5.8(a)	158-10(b)(1)	x		
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenanc	7:8-5.8(b)	158-10(b)(2)	x		
Requirements for trash racks, overflow gates and escape provisions					
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half fee	7:8-6.2(c)2	158-8(b)(3)b			x
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c	x		
			39%	43%	18%

Summary of Regulation	Citation			Compliant	Non-Compliant	NA
	NJAC	Local Ordinance	RSIS			
Nonstructural stormwater management strategies:						
Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss	7:8-5.3(b)1	158-4(e)(2)a	5:21-7.1(d)1	2	9	1
Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces	7:8-5.3(b)2	158-4(e)(2)b	5:21-7.1(d)2	2	10	0
Maximize the protection of natural drainage features and vegetation	7:8-5.3(b)3	158-4(e)(2)c	5:21-7.1(d)3	1	11	0
Minimize the decrease in the "time of concentration" from pre-construction to post-construction	7:8-5.3(b)4	158-4(e)(2)d	5:21-7.1(d)4	1	11	0
Minimize land disturbance including clearing and grading	7:8-5.3(b)5	158-4(e)(2)e	5:21-7.1(d)5	1	11	0
Minimize soil compaction	7:8-5.3(b)6	158-4(e)(2)f	5:21-7.1(d)6	3	9	0
Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides	7:8-5.3(b)7	158-4(e)(2)g	5:21-7.1(d)7	0	12	0
Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas	7:8-5.3(b)8	158-4(e)(2)h	5:21-7.1(d)8	1	11	0
Provide other source controls to prevent or minimize the use of exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runoff	7:8-5.3(b)9	158-4(e)(2)i	5:21-7.1(d)9	0	10	2
				10%	87%	3%
Erosion control, groundwater recharge and runoff quantity standards:						
The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at NJAC 7:8-5.6 either:						
Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the site	7:8-5.4(a)2i(1)	158-4(f)(1)b1A	5:21-7.7	3	8	1
or						
Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two-year storm is infiltrated	7:8-5.4(a)2i(2)	158-4(f)(1)b1B				
Assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts.	7:8-5.4 (a)2iv	158-4(f)(1)b4		1	2	9
In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at NJAC 7:8-5.6, complete one of the following:						
Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the two, 10, and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events	7:8-5.4(a)3i	158-4(f)(1)c1	5:21-7.5	2	10	0
or						
Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the two, 10, 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site.	7:8-5.4(a)3ii	158-4(f)(1)c2				
or						
Design stormwater management measures so that the post-construction peak runoff rates for the two, 10, and 100-year storm events are 50, 75 and 80%, respectively, of the pre-construction peak runoff rates.	7:8-5.4(a)3iii	158-4(f)(1)c3				
				17%	56%	28%
Stormwater runoff quality standards						
Stormwater management measures shall be designed to reduce the post-construction load of TSS in stormwater runoff generated from the water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average.	7:8-5.5	158-4(g)(1)	5:21-7.6	5	7	0
If more than one BMP in series is necessary to achieve 80% TSS reduction for a site, the applicant shall utilize listed formula to calculate TSS reduction	7:8-5.5(c)	158-4(g)(3)		5	1	6
If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average	7:8-5.5(d)	158-4(g)(4)		3	4	5
Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated for the water quality design storm.	7:8-5.5(e)	158-4(g)(5)		1	11	0
				29%	48%	23%
Calculation of stormwater runoff and groundwater recharge						
The design engineer shall calculate runoff using one of the following methods:						
The USDA NRCS methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph	7:8-5.6(a)1i	158-5(a)(1)a	5:21-7.2(c)1	1	11	0
or						
The Rational Method for peak flow and the Modified Rational Method for hydrograph computations	7:8-5.6(a)1ii	158-5(a)(1)b	5:21-7.2(c)1			
A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or a portion of the site for at least five years without interruption prior to the time of application	7:8-5.6(a)2	158-5(a)(2)	5:21-7.2(a)	1	2	9
Pre-construction stormwater runoff accounts for all significant land features and structures	7:8-5.6(a)3	158-5(a)(3)	5:21-7.2(a)	4	8	0
Stormwater runoff shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site	7:8-5.6(a)4	158-5(a)(4)	5:21-7.2(e)	5	7	0
If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.	7:8-5.6(a)5	158-5(a)(5)	5:21-7.8(c)	0	1	11
Groundwater recharge may be calculated with NJ GSR-32	7:8-5.6(b)1	158-5(b)(1)	5:21-7.7	8	1	3
				26%	42%	32%
Standards for structural stormwater management measures						
Structural stormwater management measures shall be designed to take into account the existing site conditions (env. critical areas, wetlands, slopes, etc.)	7:8-5.7(a)1	158-6(a)1		4	8	0
Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate.	7:8-5.7(a)2	158-6(a)2	5:21-7.8(d)1ii	7	5	0
				46%	54%	0%
Maintenance requirements						
The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major development	7:8-5.8(a)	158-10(b)(1)	5:21-7.9	7	5	0
The maintenance plan shall contain specific preventative maintenance tasks and schedules, cost estimates, contact info for persons responsible for preventative and corrective maintenance.	7:8-5.8(b)	158-10(b)(2)		4	7	1
				46%	50%	4%
Requirements for trash racks, overflow gates and escape provisions						
Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half feet.	7:8-6.2(c)2	158-8(b)(3)b	5:21-7.8(d)6vii	2	1	9
In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.	7:8-6.2(c)3	158-8(b)(3)c	5:21-7.8(d)6viii	7	2	3
				38%	13%	50%
			Overall Compliance	24%	58%	18%