

Schedule 4: Connection requirements

Regionwide stormwater network discharge consent







Contents

Introduction	4
How to adopt a Stormwater Management Plan: Do I need to prepare a Stormwater Management Plan?	8
Pathways for adopting a new SMP into the regionwide NDC	9
Connection requirements:	
Greenfields	13
Brownfields large	19
Brownfields small	27
AT/NZTA/Railways transport projects	33
Healthy Waters projects	37

Introduction

The regionwide stormwater network discharge consent (NDC) is a key tool for managing and integrating land uses, stormwater discharges and the region's natural water assets to mitigate impacts from climate change and flooding and allow multiple community and environmental outcomes to be realised.

This consent is the largest of its kind in New Zealand and is unique in its approach to managing future stormwater diversions and discharges to:

- provide certainty and a regionally consistent set of performance requirements
- provide a framework to support urban growth and development for future urban areas while enabling stormwater management plans to be tailored to specific sites and scenarios
- improve water quality through robust performance requirements for the public network
- reduce complexity and promote compliance requirements

- deliver accountability, transparency and best practice through regular reporting and reviews.

The NDC applies to:

- existing diversions and discharges of stormwater from the public network
- new or modified diversions and discharges that result from the upgrading of the stormwater network
- future diversions and discharges that result from the extension of the public network to service intensification and greenfield growth.

Developers can come under the council's consent provided they meet the NDC requirements instead of getting a private discharge consent.

Auckland Council's Healthy Waters department will work closely with developers seeking to utilise the NDC about how best to provide stormwater management for their development. This will ensure that the significant stormwater assets and other facilities they build on behalf of the community and then vest to the council, are of good quality and fit for purpose.

As the consent holder, the Healthy Waters department is ultimately responsible for compliance with the consent and the discharge from the stormwater network, and as the network operator also accountable for the ongoing operation and maintenance of the assets.

Authorisation of stormwater discharges from a development

Developers (and their professional team) who wish to have the stormwater diversion and discharge associated with their proposal authorised by the NDC will need to demonstrate in a Stormwater Management Plan that they meet the performance requirements in Schedule 4 of the NDC.

There are different performance requirements for different development scenarios:

Small scale Brownfield developments will not require an SMP if their proposed stormwater management is consistent with Schedule 4.

Large scale Brownfield and Greenfield developments will require a Stormwater Management Plan.

The SMP will be adopted into the NDC which will authorise the discharges from a development as described in [Schedule 8 of the NDC](#).

Note that if there is a discharge from a greenfields development into a significant ecological area then a different process for adopting a SMP applies.

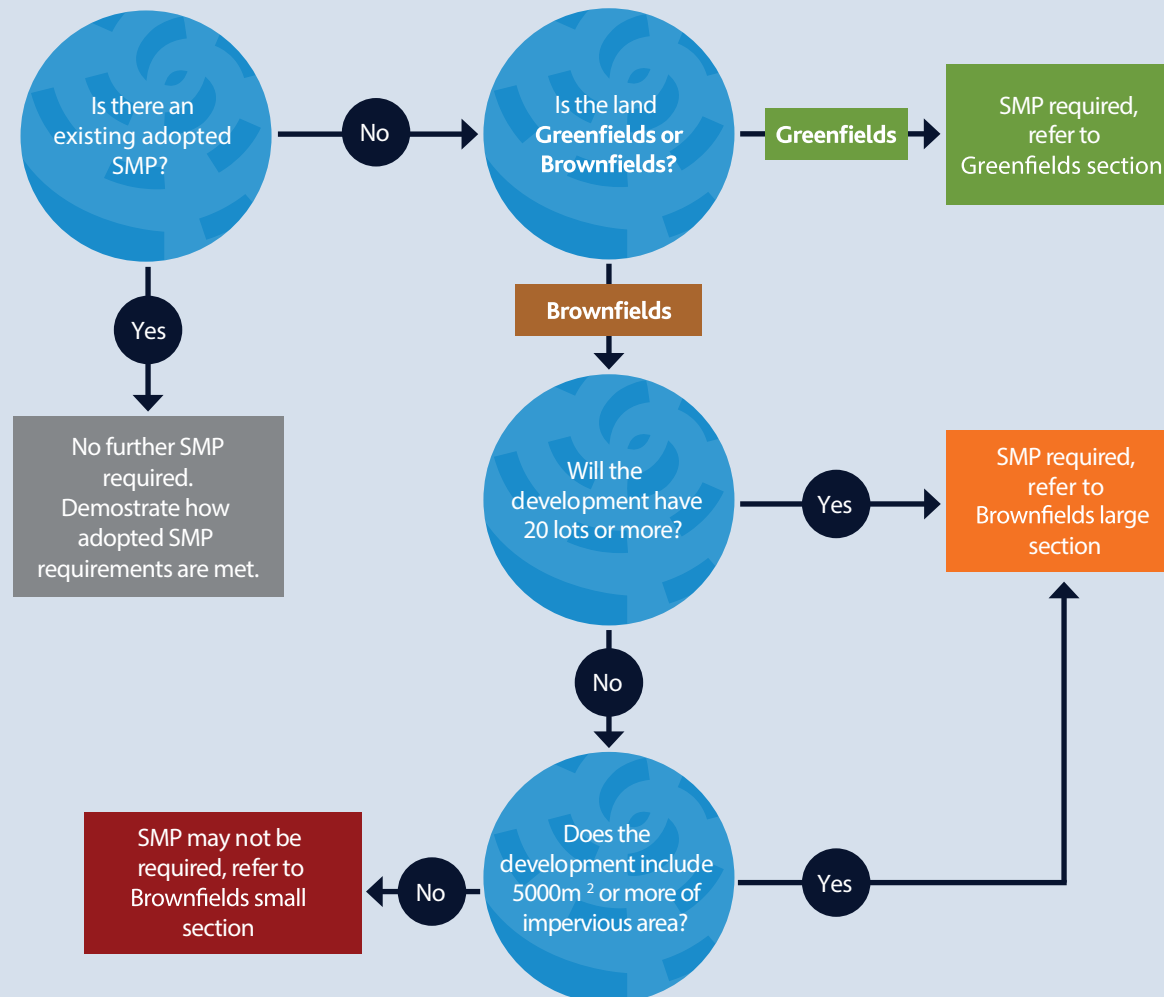




How to adopt a Stormwater Management Plan



Do I need to prepare a Stormwater Management Plan (SMP)?



Definitions

Brownfield large:

20 lots or over new/re-developed 5000m² impervious surface. Any already urbanised land to be redeveloped; often for more intensive or different land use.

Brownfield small:

Any already urbanised land to be redeveloped; often for more intensive or different land use.

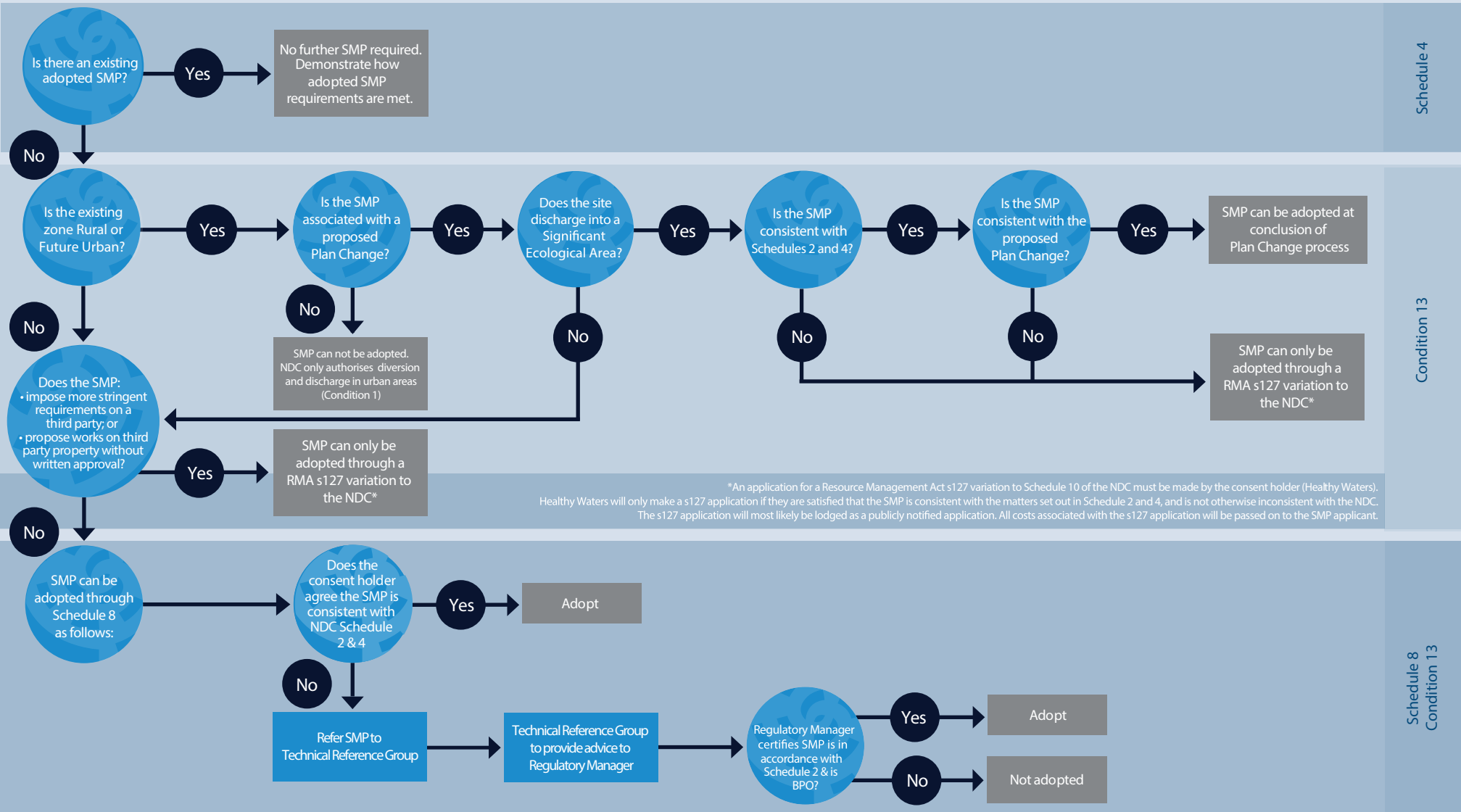
Development:

Total development area including all future stages.

Greenfield:

Land identified for future urban development that has not been previously developed.

Pathways for adopting a new SMP into the regionwide NDC





Schedule 4: Connection requirements





Connection requirements - Private development

Greenfields

Future urban development



Greenfields

Future urban development

Issue/receiving environment	Greenfields
CATCHMENTS/AREAS	
Within area covered by adopted SMP ¹ (Schedule 10)	<ul style="list-style-type: none"> Stormwater management or connection requirements in accordance with the SMP <p>Note that where specifically addressed in a SMP these requirements supersede any performance requirements below.</p>
In other areas	<p>A SMP detailing the Best Practicable Option² that addresses:</p> <ul style="list-style-type: none"> The management approach/key elements including: <ul style="list-style-type: none"> Areas of development, including roads and reserves Location of vested infrastructure, including green infrastructure (note that assets located in the road corridor also require approval of Auckland Transport) Areas of on-site and communal (public) stormwater management Significant site features and hydrology How the connection/vesting requirements below are met or the alternative that is proposed. An assessment, which includes such detail as corresponds with the scale and significance of the effects of the proposal, of how an Integrated Stormwater Management Approach has been adopted in the design and associated stormwater management in accordance with the policies in the AUP³ Sections E1.3, B7 and B8 to: <ul style="list-style-type: none"> Minimise the stormwater related effects of development; Retain/restore natural hydrology as far as practicable Minimise the generation and discharge of contaminants (including gross stormwater pollutants⁴ and stormwater flows at source) Minimise temperature related effects Enhance freshwater systems including streams and riparian margins Minimise the location of engineered structures in streams Protect the values of Significant Ecological Areas as identified in the Auckland Unitary Plan. Any stormwater plan prepared as part of a relevant structure plan.

¹ Stormwater Management Plan. These include Integrated Catchment Management Plans or similar where they have been adopted under this consent.

² In developing a SMP, the primary objective is to achieve the best practicable option for the long term management of stormwater from the development area. In addition to the requirements to consider the Stormwater Code of Practice and WSD principles, consideration should also be given to site specific constraints and circumstances as outlined in Policy E1.3.10.

³ Auckland Unitary Plan.

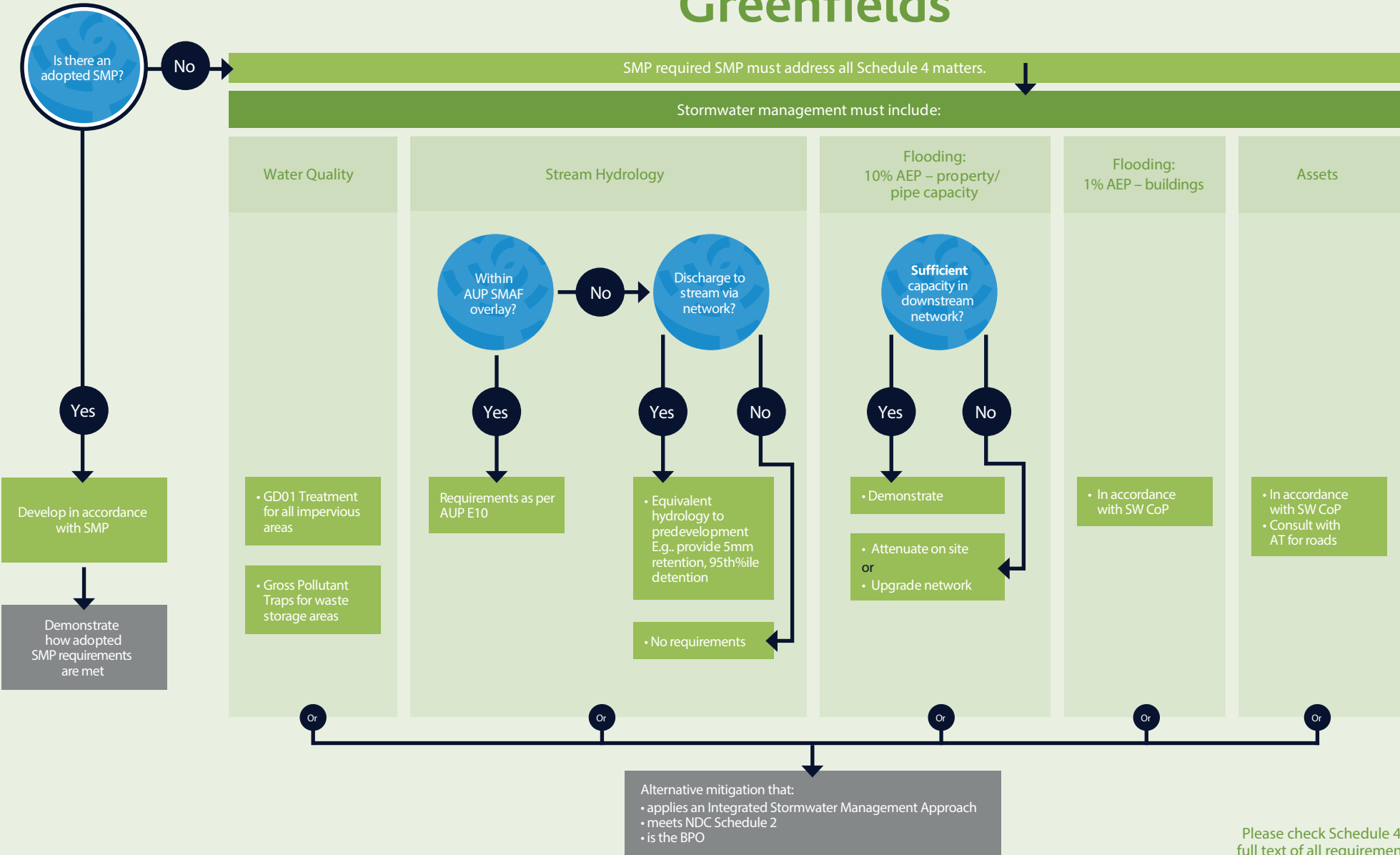
⁴ Pollutants such as litter, plastics and other coarse material that may become entrained in stormwater flows.

Issue/receiving environment	Greenfields
<p>WATER QUALITY (Note: these apply in addition to any land use/consent requirements)</p>	
<p>Degraded or sensitive aquatic environment:</p> <ul style="list-style-type: none"> • Stream • Coastal Degraded 1 or 2 • Quality sensitive groundwater aquifer (see AUP) 	<ul style="list-style-type: none"> • Treatment of all impervious areas by a water quality device designed in accordance with GD01/TP 10 for the relevant contaminants. <p>Or</p> <ul style="list-style-type: none"> • An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> - applies an Integrated Stormwater Management Approach (as per above); - meets the NDC Objectives and Outcomes in Schedule 2; and - is the BPO.
<p>Other receiving environments</p>	<p>And</p> <ul style="list-style-type: none"> • Gross pollutant traps for runoff from: <ul style="list-style-type: none"> - Commercial/industrial waste storage/handling or loading/unloading areas treatment - Communal waste storage areas in apartments and multi-unit developments.
<p>STREAM HYDROLOGY</p>	
<p>Within a SMAF</p>	<ul style="list-style-type: none"> • No additional requirements to those of the AUP.
<p>Where discharge is to a stream via public stormwater network outside of SMAF</p>	<ul style="list-style-type: none"> • Achieve equivalent hydrology (infiltration, runoff volume, peak flow) to pre-development (grassed state) levels. <p>Or</p> <ul style="list-style-type: none"> • An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> - applies an Integrated Stormwater Management Approach (as per above); - meets the NDC objectives and outcomes in Schedule 2; - is the BPO for the given project.

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Issue/receiving environment	Greenfields
STREAM HYDROLOGY (continued)	
Where discharge is to a stream via public stormwater network outside of SMAF (continued)	<p>A method of achieving equivalent hydrology to pre-development (grassed state) levels is to:</p> <ul style="list-style-type: none"> • Provide retention (volume reduction) of a minimum of 5mm runoff depth for all impervious areas; and • Provide detention (temporary storage) with a draindown period of 24 hours for the difference between the pre-development (grassed state) and post-development runoff volumes from the 95th percentile, 24 hour rainfall event minus the retention volume for all impervious areas.
FLOODING	
Property/pipe capacity: 10% AEP event	<ul style="list-style-type: none"> • Ensure that there is sufficient capacity within the pipe network downstream of the connection point to cater for the stormwater runoff associated with the development in a 10% AEP event including incorporating flows from contributing catchments at maximum probable development. <p>Methods of ensuring sufficient capacity in the downstream pipe network include any one of the following:</p> <ul style="list-style-type: none"> • Demonstrating sufficient capacity is available including flows from the catchment (at maximum probable development) draining to the relevant pipe network in the 10% AEP event); • Attenuating and reducing stormwater flows and volume on-site such that there is no increase in peak flow in a 10% AEP event from the site compared to that prior to the new development. Note that any devices associated with this option will also require an operation and maintenance plan to ensure the long-term efficacy of such a system; • Upgrading the relevant pipe network to a size that can cater for the additional flows from the development in the 10% AEP event (taking into account existing flows from the contributing catchment); or • Upgrading the relevant pipe network to a size that is larger than would otherwise be required to cater for the 10% AEP event for the development, due to the need to cater for flows from the contributing catchment at maximum probable development, subject to a fair and proportionate funding agreement with Healthy Waters.
Buildings – 1% AEP event	<ul style="list-style-type: none"> • Develop to Stormwater Code of Practice. • Develop in accordance with SMP as above.
ASSETS	
General	<p>All new assets that are intended to become part of the public stormwater network are to be designed and constructed to be durable and perform to the required level of service for the life of the asset, subject to reasonable asset maintenance.</p> <p>Note: The vesting of new stormwater assets to the council is subject to any required approvals including under the Stormwater Bylaw, and the Stormwater Code of Practice.</p> <p>Stormwater management assets in the road corridor require approval from Auckland Transport prior to vesting.</p>

Greenfields





Connection requirements - Private development

Brownfields large

20 lots and over or more than 5000m² of
new/re-developed impervious surface



Brownfields large

20 lots and over or more than 5000m² of new/re-developed impervious surface

Issue/receiving environment	Brownfields large
CATCHMENTS/AREAS	
Within area covered by adopted SMP ⁵ (Schedule 10)	<ul style="list-style-type: none"> Stormwater management or connection requirements in accordance with the SMP <p>Note that where specifically addressed in a SMP these requirements supersede any performance requirements below.</p>
In other areas	<p>A SMP detailing the Best Practicable Option⁶ that addresses:</p> <ul style="list-style-type: none"> The management approach/ key elements including: <ul style="list-style-type: none"> Areas of development, including roads and reserves Location of vested infrastructure, including green infrastructure (note that assets located in the road corridor also require approval of Auckland Transport) Areas of on-site and communal (public) stormwater management Significant site features and hydrology How the connection/vesting requirements below are met or the alternative that is proposed. An assessment, which includes such detail as corresponds with the scale and significance of the effects of the proposal, of how an Integrated Stormwater Management Approach has been adopted in the design and associated stormwater management in accordance with the policies in the AUP Sections E1.3, B7 and B8 to: <ul style="list-style-type: none"> Minimise the stormwater related effects of development Retain/restore natural hydrology as far as practicable Minimise the generation and discharge of contaminants (including gross stormwater pollutants⁸ and stormwater flows at source) Minimise temperature related effects Enhance freshwater systems including streams and riparian margins Minimise the location of engineered structures in streams Protect the values of Significant Ecological Areas as identified in the Auckland Unitary Plan. Any stormwater plan prepared as part of a relevant structure plan.

⁵ Stormwater Management Plan. These include Integrated Catchment Management Plans or similar where they have been adopted under this consent.

⁶ In developing a SMP, the primary objective is to achieve the best practicable option for the long-term management of stormwater from the development area. In addition to the requirements to consider the Stormwater Code of Practice and WSD principles, consideration should also be given to site specific constraints and circumstances as outlined in Policy E1.3.10.

⁷ Auckland Unitary Plan.

⁸ Pollutants such as litter, plastics and other coarse material that may become entrained in stormwater flows.

Issue/receiving environment	Brownfields large
<p>WATER QUALITY (Note: these apply in addition to any land use/consent requirements)</p>	
<p>Degraded or sensitive aquatic environment:</p> <ul style="list-style-type: none"> • Stream • Coastal Degraded 1 or 2 • Quality sensitive groundwater aquifer (see AUP) 	<ul style="list-style-type: none"> • Treatment of all impervious areas by a water quality device designed in accordance with GD01/TP 10 for the relevant contaminants. <p>Or</p> <ul style="list-style-type: none"> • An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> - applies an Integrated Stormwater Management Approach (as per above); - meets the NDC Objectives and Outcomes in Schedule 2; and - is the BPO.
<p>Other receiving environments</p>	<p>And</p> <ul style="list-style-type: none"> • Gross pollutant traps for runoff from: <ul style="list-style-type: none"> - Commercial/industrial waste storage/handling or loading/unloading areas treatment - Communal waste storage areas in apartments and multi-unit developments.
<p>STREAM HYDROLOGY</p>	
<p>Within a SMAF</p>	<ul style="list-style-type: none"> • No additional requirements to those of the AUP.
<p>Where discharge is to a stream via public stormwater network outside of SMAF</p>	<ul style="list-style-type: none"> • Provide retention (volume reduction) of a minimum of 5mm runoff depth for all impervious areas; and • Provide detention (temporary storage) with a draindown period of 24 hours for the difference between the pre-development (grassed state) and post-development runoff volumes from the 95th percentile, 24 hour rainfall event minus the retention volume for all impervious areas; except that Where: a suitably qualified person has confirmed that soil infiltration rates are less than 2mm/hr or there is no area on the site of sufficient size to accommodate all required infiltration that is free of geotechnical limitations (including slope, setback from infrastructure, building structures or boundaries and water table depth); and rainwater reuse is not available because: <ul style="list-style-type: none"> - the quality of the stormwater runoff is not suitable for on-site reuse (i.e. for non-potable water supply, garden/crop irrigation or toilet flushing); or - there are no activities occurring on the site that can re-use the full 5mm retention volume of water the retention can be taken up by detention as follows:

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Issue/receiving environment	Brownfields large
<p>STREAM HYDROLOGY (continued)</p>	
<p>Where discharge is to a stream via public stormwater network outside of SMAF (continued)</p>	<ul style="list-style-type: none"> • provide detention (temporary storage) and a drain down period of 24 hours for the difference between the pre-development and post-development runoff volumes from the 95th percentile (SMAF 1) / 90th percentile (SMAF 2), 24 hour rainfall event minus any retention volume that is achieved, over the impervious area for which hydrology mitigation is required. <p>Or</p> <ul style="list-style-type: none"> • An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> - applies an Integrated Stormwater Management Approach (as per above); - meets the NDC Objectives and Outcomes in Schedule 2; - is the BPO for the given project.
<p>FLOODING</p>	
<p>Property/pipe capacity: 10% AEP event</p>	<ul style="list-style-type: none"> • Ensure that there is sufficient capacity within the pipe network downstream of the connection point to cater for the additional stormwater runoff associated with the development in a 10% AEP event; or • Demonstrate that flows in excess of the pipe capacity in a 10% AEP event within the pipe network downstream of the connection point will not increase flooding of any other property; or • Demonstrate through an assessment that flows in excess of the pipe capacity in a 10% AEP event within the pipe network downstream of the connection point will not increase adverse effects on any other property. <p>Factors to consider when evaluating adverse effects as a result of flooding should include, but are not limited to:</p> <ul style="list-style-type: none"> • The type, frequency and scale of increased flooding or overland flow; • The type of activities being undertaken within the property and the consequences of increased flooding or overland flow in relation to these activities and the people involved; and • The potential impact on public safety, including safe access and ingress. <p>Methods of ensuring sufficient capacity in the pipe network in Brownfield areas include any one of the following:</p> <ul style="list-style-type: none"> • Demonstrating sufficient capacity is available including flows from the catchment (at maximum probable development) draining to the relevant pipe network in the 10% AEP event) • Attenuating and reducing stormwater flows and volume on-site such that there is no increase in peak flow in a 10% AEP event from the site compared to that prior to the new development. Note that any devices associated with this option will also require an operation and maintenance plan to ensure the long-term efficacy of such a system.

Issue/receiving environment	Brownfields large
FLOODING (continued)	
Property/pipe capacity: 10% AEP event (continued)	<ul style="list-style-type: none"> • Upgrading the relevant pipe network to a size that can cater for the additional flows from the development in the 10% AEP event (taking into account flows from the contributing catchment); or • Upgrading the relevant pipe network to a size that is larger than would otherwise be required to cater for the 10% AEP event for the development, due to the need to cater for flows from the contributing catchment at maximum probable development, subject to a fair and proportionate funding agreement with Healthy Waters.
Buildings – 1% AEP event	<ul style="list-style-type: none"> • Manage/mitigate 1% AEP peak flow to that immediately preceding development/redevelopment. Or <ul style="list-style-type: none"> • An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> - applies an Integrated Stormwater Management Approach (as per above); - meets the NDC Objectives and Outcomes in Schedule 2; - is the BPO for the given project.
ASSETS	
General	<p>All new assets that are intended to become part of the public stormwater network are to be designed and constructed to be durable and perform to the required level of service for the life of the asset, subject to reasonable asset maintenance.</p> <p>Note: The vesting of new stormwater assets to the council is subject to any required approvals including under the Stormwater Bylaw, and the Stormwater Code of Practice.</p> <p>Stormwater management assets in the road corridor require approval from Auckland Transport prior to vesting.</p>

Brownfields large: >5000m² or >20 lots







Connection requirements - Private development

Brownfields small

Less than 20 lots and less than 5000m² impervious area



Brownfields small

Less than 20 lots and less than 5000m² impervious area

Issue/receiving environment	Brownfields small
CATCHMENTS/AREAS	
Within area covered by adopted SMP ⁹ (Schedule 10)	<ul style="list-style-type: none"> Stormwater management or connection requirements in accordance with the SMP <p>Note that where specifically addressed in a SMP these requirements supersede any performance requirements below.</p>
In other areas	<p>Requirements below are met; or</p> <ul style="list-style-type: none"> Where requirements cannot be met, a SMP that includes supporting information that demonstrates the best practicable option has been adopted.
WATER QUALITY (Note: these apply in addition to any land use/consent requirements)	
<p>Degraded or sensitive aquatic environment:</p> <ul style="list-style-type: none"> Stream Coastal Degraded 1 or 2 Quality sensitive groundwater aquifer (see AUP) 	<ul style="list-style-type: none"> No more than 25m² of any combination of exposed (i.e. unpainted) roofing, guttering or cladding, made of galvanised steel¹⁰ or copper, unless treated by a water quality device designed in accordance with GD01/TP 10, for the treatment and attenuation of metals in the runoff Gross pollutant traps¹¹ for commercial and industrial waste storage, handling or loading/unloading areas treatment and communal waste storage areas for apartments and multi-unit developments.
Other receiving environments	<ul style="list-style-type: none"> Gross pollutant traps¹² for commercial and industrial waste storage, handling or loading/unloading areas treatment and communal waste storage areas for apartments and multi-unit developments.
STREAM HYDROLOGY	
Within a SMAF	<ul style="list-style-type: none"> No additional requirements to those of the AUP.

⁹ Stormwater Management Plan. These include Integrated Catchment Management Plans or similar where they have been adopted under this consent.

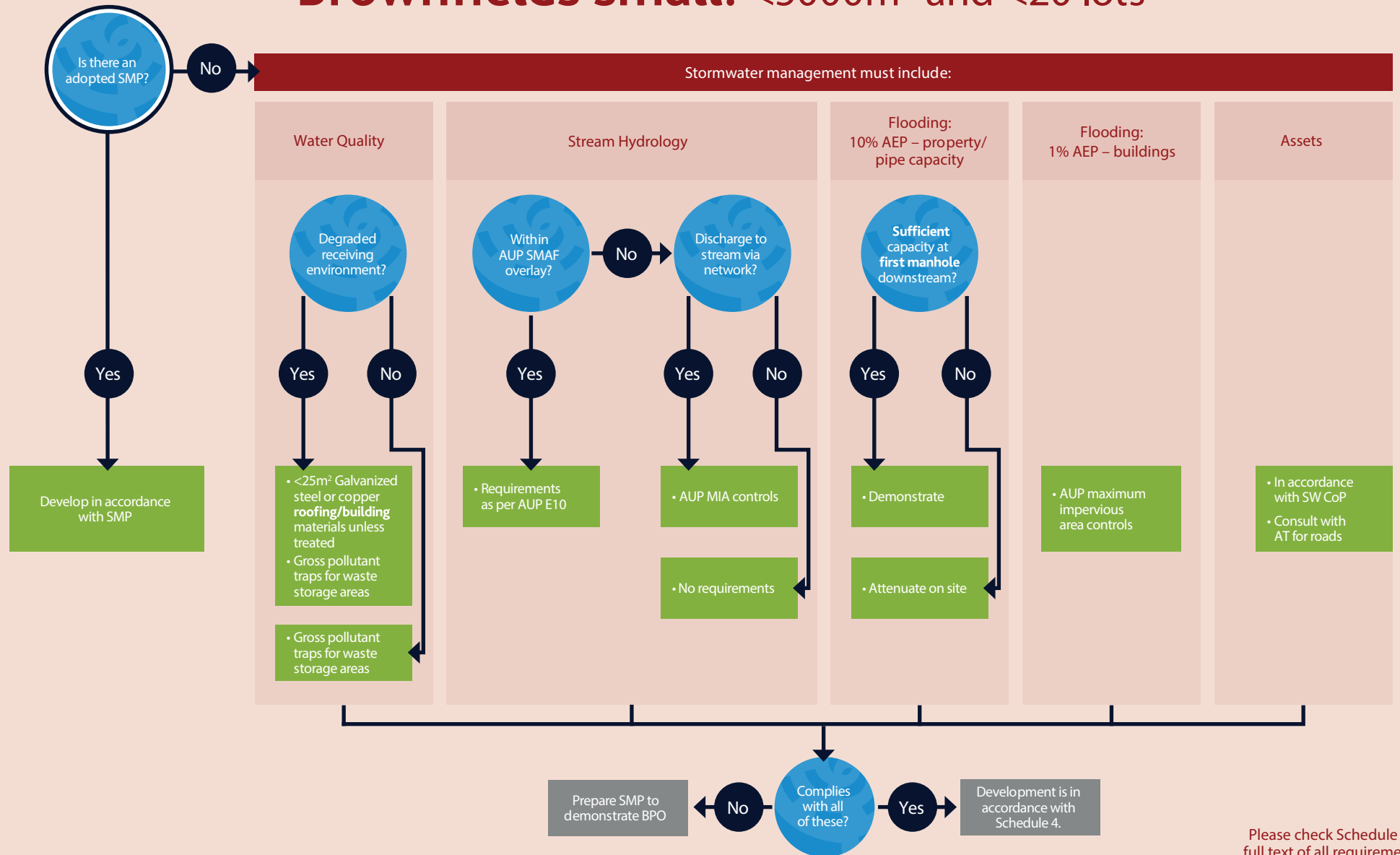
¹⁰ Steel with a surface coating of 99% zinc or greater.

¹¹ Auckland Council Publications GD01 and TR2011/006 provide guidance as to suitable devices for removing gross pollutants.

¹² Auckland Council Publications GD01 and TR2011/006 provide guidance as to suitable devices for removing gross pollutants.

Issue/receiving environment	Brownfields small
Where discharge is to a stream via public stormwater network outside of SMAF	<ul style="list-style-type: none"> No additional requirement to Maximum Impervious Area controls in the AUP.
FLOODING	
Property/pipe capacity: 10% AEP event	<ul style="list-style-type: none"> Ensure that there is sufficient capacity within the pipe network to the first manhole downstream of the connection point to cater for the additional stormwater runoff associated with the development in a 10% AEP event. <p>Methods of achieving this include:</p> <ul style="list-style-type: none"> Demonstrating sufficient capacity is available including flows from the catchment (at maximum probable development) draining to the relevant section of pipe network in the 10% AEP event; Attenuating and reducing stormwater flows and volume on-site such that there is no increase in peak flow in a 10% AEP event from the site compared to that prior to the new development. Note that any vested devices, or devices to be managed by a body corporate associated with this option will also require an operation and maintenance plan to ensure the long-term efficacy of such a system. <p>Advice note:The following option also applies as an alternative to the above: Providing a financial contribution in agreement with Healthy Waters to upgrade the relevant pipe network where there is significant potential for additional development in the contributing catchment.</p>
Buildings – 1% AEP event	No additional requirement to Maximum Impervious Area controls in AUP.
ASSETS	
General	<p>All new assets that are intended to become part of the public stormwater network are to be designed and constructed to be durable and perform to the required level of service for the life of the asset, subject to reasonable asset maintenance.</p> <p>Note: The vesting of new stormwater assets to the council is subject to any required approvals including under the Stormwater Bylaw, and the Stormwater Code of Practice.</p> <p>Stormwater management assets in the road corridor require approval from Auckland Transport prior to vesting.</p>

Brownfields small: <5000m² and <20 lots



Please check Schedule 4 for full text of all requirements.





Connection requirements

AT/NZTA/Railways transport projects



AT/NZTA/Railways transport projects¹³

Connection requirements¹⁴

Issue/receiving environment	Small projects – up to 1,000m ² of new impervious area	Off-road pedestrian and cycling facilities and ferry terminal facilities. New impervious area greater than 1,000m ²	Development of new/redevelopment of impervious area for: existing high use roads ¹⁵ - that includes new impervious area greater than 1,000m ² other roads that includes new impervious area greater than 5,000m ² rail corridor projects with new impervious area greater than 1,000m ²	Development/redevelopment of a high contaminant generating carpark ¹⁶ (new/redeveloped area greater than 1,000m ²)
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CATCHMENTS/AREAS

Within area covered by adopted SMP (Schedule 10)	<ul style="list-style-type: none"> Stormwater management or connection requirements in accordance with the SMP <p>Note that where specifically addressed in a SMP these requirements supersede any performance requirements below.</p>			
In other areas	<ul style="list-style-type: none"> General performance requirements <ul style="list-style-type: none"> No new/additional habitable floor affected by flooding in 1% AEP event and no increase in frequency of existing flooding No significant increase in risk to the operation and structural integrity of other infrastructure in 1% AEP event No increase in inundation that affects a building on a property in 10% AEP No loss in overland flow path capacity, unless provided by other means. <p>Where these requirements cannot be met, a SMP that includes supporting information to justify an alternative as the BPO for the given project is required.</p>			

WATER QUALITY (Note: these apply in addition to general performance requirements above)

Where the existing road corridor is constrained off-setting within the same catchment may form part of the mitigation approach.

All receiving environments	No requirements.	No requirements.	<ul style="list-style-type: none"> Treatment of new road area and any existing road area directed to same point by a water quality device designed in accordance with GD01/TP 10 for the relevant contaminants. 	<ul style="list-style-type: none"> Treatment of new/redeveloped area (or all carpark area where it is >50% of the site) by a water quality device designed in accordance with GD01/TP 10 for the relevant contaminants.
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¹³ Note that roads constructed by a developer as part of Greenfield/Brownfield development are considered as part of that development.

¹⁴ These requirements only apply where there is a connection into the public stormwater network.

¹⁵ See AUP definition: A road, motorway or state highway that carries more than 5000 vehicles per day, excluding cycle lanes, footpaths and ancillary areas that do not receive stormwater runoff from the road carriageway.

¹⁶ See AUP Definition: Carpark that is exposed to rainfall and is designed for a total of more than 30 vehicles.

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Issue/receiving environment	Small projects – up to 1,000m ² of new impervious area	Off-road pedestrian and cycling facilities and ferry terminal facilities. New impervious area greater than 1,000m ²	Development of new/redevelopment of impervious area for: existing high use roads ¹⁷ - that includes new impervious area greater than 1,000m ² other roads that includes new impervious area greater than 5,000m ² rail corridor projects with new impervious area greater than 1,000m ²	Development/redevelopment of a high contaminant generating carpark ¹⁸ (new/redeveloped area greater than 1,000m ²)
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WATER QUALITY (continued)

All receiving environments	No requirements.	No requirements.	<p>Or</p> <ul style="list-style-type: none"> Treatment of equivalent area of high use road within same catchment by a water quality device designed in accordance with GD01/TP 10 for the relevant contaminants <p>Or</p> <ul style="list-style-type: none"> An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> applies an Integrated Stormwater Management Approach (as per above); meets the NDC Objectives and Outcomes in Schedule 2; is the BPO for the given project. 	<p>Or</p> <ul style="list-style-type: none"> Treatment of equivalent area within same catchment by a water quality device designed in accordance with GD01/TP 10 for the relevant contaminants <p>Or</p> <ul style="list-style-type: none"> An alternative level of mitigation determined through a SMP that: <ul style="list-style-type: none"> applies an Integrated Stormwater Management Approach (as per above); meets the NDC Objectives and Outcomes in Schedule 2; is the BPO for the given project.
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STREAM HYDROLOGY Where the existing road corridor is constrained off-setting within the same catchment may form a part of the mitigation approach.

With a SMA	No additional requirements to those of AUP and general requirements above.
Where discharge is to a stream via public stormwater network outside of SMAF	No additional requirements to those of AUP and general requirements above.

¹⁷ See AUP definition: A road, motorway or state highway that carries more than 5000 vehicles per day, excluding cycle lanes, footpaths and ancillary areas that do not receive stormwater runoff from the road carriageway.

¹⁸ See AUP Definition: Carpark that is exposed to rainfall and is designed for a total of more than 30 vehicles.

Issue/receiving environment	Small projects – up to 1,000m ² of new impervious area	Off-road pedestrian and cycling facilities and ferry terminal facilities. New impervious area greater than 1,000m ²	Development of new/redevelopment of impervious area for: existing high use roads ¹⁹ - that includes new impervious area greater than 1,000m ² other roads that includes new impervious area greater than 5,000m ² rail corridor projects with new impervious area greater than 1,000m ²	Development/redevelopment of a high contaminant generating carpark ²⁰ (new/redeveloped area greater than 1,000m ²)
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FLOODING

Property/pipe capacity: 10% AEP event	<p>Projects – up to 5,000m² new impervious area²¹:</p> <ul style="list-style-type: none"> • Ensure that there is sufficient capacity within the pipe network to the first manhole downstream of the connection point (at maximum probable development of the contributing catchment) to cater for the additional stormwater runoff associated with the new impervious area in a 10% AEP event; or • Attenuate stormwater flows and volume such that there is no increase in peak flow in a 10% AEP event from the total road impervious area draining to the pipe network to the first manhole downstream of the connection point to that prior to the new impervious area. <p>Projects – 5,000m² or more of new impervious area²²:</p> <ul style="list-style-type: none"> • Ensure that there is sufficient capacity within the pipe network downstream of the connection point (at maximum probable development of the contributing catchment) to cater for the additional stormwater runoff associated with the new impervious area in a 10% AEP event; or • Attenuate stormwater flows and volume such that there is no increase in peak flow in a 10% AEP event from the total road impervious area draining to the pipe network downstream of the connection point to that prior to the new impervious area; or • Demonstrate that flows in excess of the pipe capacity in a 10% AEP event downstream of the connection point will not increase flooding of any other property and will not create a nuisance or hazard.
Buildings – 1% AEP event	Addressed in general performance requirements above.

ASSETS

General	All new stormwater assets to be operated by Healthy Waters are to be built in accordance with the Stormwater Code of Practice.
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¹⁹ See AUP definition: A road, motorway or state highway that carries more than 5000 vehicles per day, excluding cycle lanes, footpaths and ancillary areas that do not receive stormwater runoff from the road carriageway.

²⁰ See AUP Definition: Carpark that is exposed to rainfall and is designed for a total of more than 30 vehicles.

²¹ It is anticipated that capacity and other issues will be assessed in conjunction with Healthy Waters.

²² It is anticipated that capacity and other issues will be assessed in conjunction with Healthy Waters.





Connection requirements

Healthy Waters projects

Auckland Council renewal, maintenance and upgrade works



Healthy Waters projects

Auckland Council renewal, maintenance and upgrade works ²³

Auckland Council renewal, maintenance and upgrade works ²⁴

1. No new/additional habitable floor affected by flooding in 1% AEP event and no increase in frequency of existing flooding
2. No significant increase in risk to the operation and structural integrity of other infrastructure in 1% AEP event
3. No increase in inundation that affects a building on property in 10% AEP
4. No loss in overland flow path capacity, unless provided by other means
5. All major capital works projects consider, and where appropriate implement, a green infrastructure option in accordance with the Healthy Waters Green Infrastructure Policy
6. Significant erosion at a (pubic stormwater) outfall, which is the result of the operation of that outfall, is remedied/stabilised
7. Appropriate erosion protection/mitigation is provided for any new outfall in accordance with the Stormwater Code of Practice
8. Where stormwater is directed to a different receiving environment then the change in discharge:
 - Does not decrease water quality in the receiving environment; or
 - Is not predicted, by modelling or other suitable method, to result in increased stream erosion.

Where any of the above performance requirements cannot be achieved for a given project, alternative levels of performance are to be established in a Stormwater Management Plan that is certified by the Manager, Auckland Council Regulatory Services or delegate. The alternative may be certified if it meets the NDC Outcomes (Schedule 2), to the extent practicable applies an Integrated Stormwater Management Approach and is the best practicable option for the given project.

²³ Note: These projects do not create impervious area, but rather affect how stormwater is conveyed and discharged. Development that creates impervious area is covered by the vesting/connection requirements for Brownfield and Greenfield development.

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