stormwater management factsheet

Managing stormwater to minimise inundation during heavy rain events

ballina shire council

Following periods of heavy rain, Council often receives complaints regarding stormwater inundation, not only from our own road and drainage infrastructure works but also privately owned land. These types of rain events can cause problems, including severe cases of stormwater inundation into homes, sheds and garages.

Many subdivisions today contain mechanisms for stormwater management including the installation of interallotment stormwater detention and infiltration devices to control and delay the flow of stormwater. These systems are designed to manage stormwater across estates and improve the overall stormwater quality of our river systems. These devices are often located on private land and are not owned or managed by Council and need to be inspected and maintained by owners on a regular basis. It should be remembered these devices may overflow during periods of heavy rain.

It is critical that you ensure your buildings and other structures have been designed and constructed correctly so that stormwaters don't adversely affect them.

It is equally important to ensure that your stormwater management system is properly maintained as a blocked or failing system may adversely impact on both your own and other adjoining properties.

What can I do to protect my property?

Controlling overland surface water flows

During the design and construction stages of new buildings, or building alterations/additions and landscaping works, consideration must be given to the existing landform, catchment areas and likely stormwater flow paths. Due to the significant volumes of rain we can receive, open catchment drains and landform shaping around your buildings is the most effective way of managing stormwater surface flows. These open systems are often more effective than closed systems such as sumps and subsoil drainage agricultural lines to capture large volumes of water.

Choosing concrete slab on ground construction on sloping land needs careful consideration and planning during the building design and construction phases. The slab should be constructed at an adequate height and provision should be made for diverting stormwaters around rather than toward and through the building or neighbouring properties.

Excavated sites may require significant engineer designed retaining structures which should incorporate both surface and subsoil drainage works. There should be adequate space between retaining walls and other buildings to ensure proper management of stormwater.

Care needs to be taken to ensure you do not dam or divert the flow of natural surface stormwaters on your property that may affect your own or neighbouring properties.

It is also important to understand that land owners are not required to contain all natural surface stormwaters on their own land, where surface stormwaters generally follow the existing natural contours of the landform.

Drainage sumps and pits

Stormwater drainage sumps and pits are useful for containing smaller volumes of rainwater, however there should be a back-up plan in the event such systems overflow or surcharge during periods of heavy rain.

Surface drainage sumps and pits should be connected to the street or to the piped interallotment drainage system. They should be served by independent piped drainage lines not connected to other roof drainage lines, otherwise surcharging will most likely occur during high rainfall events. It is best to seek advice from your plumber when designing and installing these types of systems.

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Maintenance of drainage lines

Regular maintenance and repairs to defective stormwater drainage lines is crucial in protecting your buildings. Roof gutters and drains should be regularly cleaned of loose debris to enable water to freely flow. Blocked roof gutters can lead to water overflowing into eaves and roof spaces, causing internal damage to buildings. Blocked channel grates in front of garages can result in water entry into garages.

Surface stormwater sumps often contain soil and leaf litter debris and need to be cleaned on a regular basis. Piped drainage lines to and from these sumps should also be checked for any blockages.

Many new subdivisions today contain stormwater infiltration detention devices within the individual private allotments. These devices often involve subsoil drainage lines and inlet pits that may surcharge during heavy rain periods. It is important to ensure all your lines and inlet pits are checked and cleaned on a regular basis to ensure proper functioning.

Collecting and controlling stormwater

Legislative provisions

Private property owners must ensure they have a proper stormwater management system in place for their buildings and it is maintained in proper working order. Most stormwater management systems in urban areas discharge to either Council's street drainage or existing interallotment piped drainage networks.

The NSW Local Government Act (LGA) contains legislation requiring owners to control the flow of stormwaters on their property.

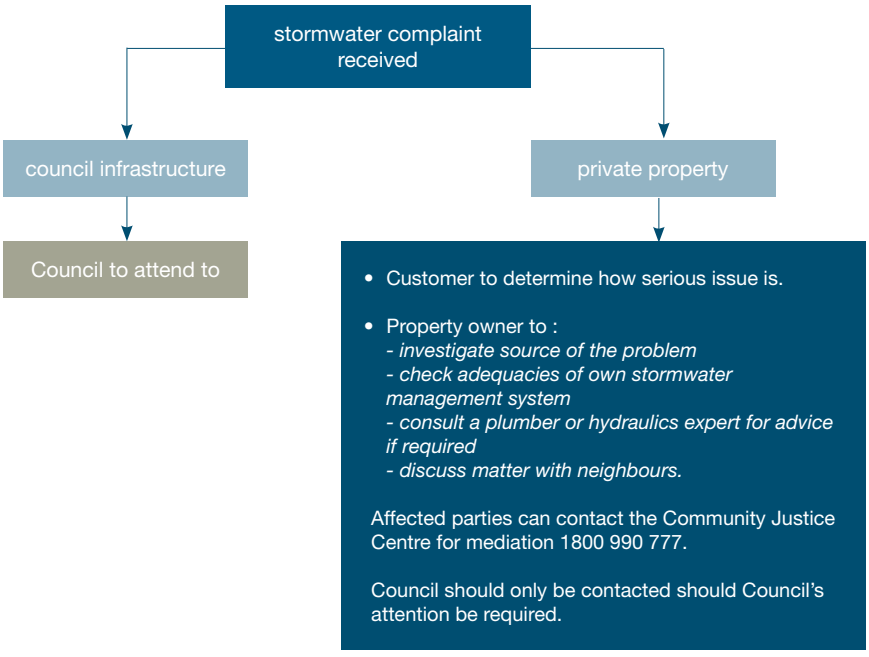
The onus rests with home owners to ensure they manage their stormwater appropriately so as to not cause any nuisance or damage to adjoining properties. Civil action may be taken against owners of land where their stormwater has not been managed properly or their landform has been altered, redirecting the natural flow of surface water resulting in damage to other properties.

Can I make a complaint about my neighbour's stormwater?

It is important to understand that drainage systems can fail during periods of very heavy rain, resulting in overflows and concentrations of stormwater. Councils have limited powers regarding private stormwater issues and we recommend the following process be followed:

- Determine how serious the issue is, whether it's just stormwater entering your yard or into your building
- Investigate the source of the problem
- Ascertain if the problem is a natural occurrence where surface stormwaters flow downhill
- Check all of your own drainage systems that they are working properly and they are adequate, including the need for the construction of any additional cut-off swale drains
- Consult a local plumber to assist in giving expert drainage advice if required
- Where needed, discuss the matter with your neighbours and seek a mutually satisfactory solution
- Contact the Community Justice Centre which provides a mediation service for neighbour disputes, phone 1800 990 777
- Council should only be contacted after a plumber, drainage engineer or builder has been engaged to identify the problem and it is considered Council's attention is required.

Stormwater complaint management



If you have any questions or concerns please contact:

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