



STORMWATER DETENTION BASINS

PURPOSE

You are receiving this brochure because, according to our records, you are the property owner (or other responsible party) of a stormwater detention basin. If you are no longer the owner, please forward this to the appropriate contact. The purpose of this brochure is to explain the function and maintenance requirements to owners regarding their detention basins. The City of Lincoln requires these detention basins to be maintained per Lincoln Municipal Code (26.23.170) and will routinely conduct compliance inspections to ensure these areas are functioning properly.

FUNCTION

The detention basin (or retention pond) in your neighborhood serves as a critical flood control component of our city's stormwater management infrastructure. Detention basins help manage the excess urban stormwater runoff generated by impervious surfaces such as roads, parking lots and rooftops. They also help prevent localized flooding by temporarily storing the excess runoff in a controlled area and then slowly releasing it at a designed rate.

OBLIGATED MAINTENANCE

When detention basins are neglected, they can become unsightly, which can affect property values. Even worse, they can become a liability. Blocked inlet/outlet structures, for example, can cause flooding in heavy rainfall events. Failure to correct issues noted from a city inspection can result in enforcement and possible further legal action by the City.

Preventative actions to detention basin areas can help preserve natural floodplain functions and alleviate future costs to property owners. Suggestions for prevention are below:

- Ensure all abutting property owners are aware this area is not a dumping ground for grass clippings, leaves, trash, etc.
- Control excess vegetation by mowing and removing dead vegetation on an annual basis.
- Remove small volunteer scrub trees growing within 10' of any structures and on top of or on the slopes of dam embankments.
- Remove debris/trash from the basin and surrounding areas and dispose of properly.
- Install native plantings adapted to floodplain and wetland conditions to help reduce mowing costs and encourage a healthy habitat for wildlife.
- Erosion issues can become worse over time and may lead to higher repair costs if not addressed in a timely matter.

For additional information please reference the City of Lincoln's website at lincoln.ne.gov search: greenspace. For additional help/question, please contact NPDES@lincoln.ne.gov

Residents living near a detention basin may want to consider purchasing flood insurance, even if they don't live in a floodplain. Homeowners insurance policies typically do NOT cover flood damage. Contact your insurance agent for more information.

COMMON ISSUES WITH DETENTION BASINS



STANDING WATER/SCOUR HOLES



EROSION ISSUES



VOLUNTEER TREES

PROBLEM

EFFECTS

POSSIBLE SOLUTIONS

Excessive vegetation & invasive plants	<ul style="list-style-type: none"> • Blockage of inlet or outlet structures • Decreased water infiltration • Decreased storage capacity • Increased risk of flooding • Streambank erosion 	<ul style="list-style-type: none"> • Mow prairie areas once per year • Mow turf grass and other areas frequently • Plant vegetation appropriate for each type of storage facility • Remove/manage weedy vegetation, volunteer trees and invasive species
Shoreline or streambank erosion	<ul style="list-style-type: none"> • Buildup of sediment in the pond or other storage facility • Decreased storage capacity • Increased risk of flooding • Inlet/outlet structure damage or failure 	<ul style="list-style-type: none"> • Install boulders or rip-rap on pond shoreline • Plant vegetation appropriate for shoreline stabilization • Remove debris and trash frequently, especially after a rain event • Seek professional guidance for streambank erosion
Mosquito population	<ul style="list-style-type: none"> • Increased annoyance to residents • Increased risk of spreading mosquito-borne diseases 	<ul style="list-style-type: none"> • Maintain a healthy balance of plants, fish and other mosquito predators in ponds • Eliminate low spots or scour holes • Consult the Health Department for advice
Litter accumulation	<ul style="list-style-type: none"> • Blockage of inlet or outlet structures • Streambank erosion 	<ul style="list-style-type: none"> • Remove debris and trash frequently, especially after a rain event • Cut back overgrown vegetation
Geese population	<ul style="list-style-type: none"> • Excessive goose waste • May upset the nutrient balance within pond • Increased algae growth 	<ul style="list-style-type: none"> • Do not feed geese • Plant native vegetation along the banks and minimize mowing • Plant “rough” grasses such as buffalo grass
Mowing & yard waste disposal	<ul style="list-style-type: none"> • Buildup of decaying organic material in storage facility 	<ul style="list-style-type: none"> • Dispose of yard waste at the city composting facility or use a mulching mower • Reduce the use of pesticides and phosphorus fertilizers
Pollutant infiltration	<ul style="list-style-type: none"> • May upset chemical and biological balance of the pond or other storage facility 	<ul style="list-style-type: none"> • Dispose of pet waste properly • Reduce the use of pesticides and fertilizers
Development of gullies, scour holes or low areas	<ul style="list-style-type: none"> • May cause standing water or soggy surfaces • Increased mosquito populations • Streambank erosion • Decreased quality of turf 	<ul style="list-style-type: none"> • Fill areas of standing water with soil • Replant eroded areas with grass and stabilize with an erosion control device until the grass has fully matured • Consider installing permanent solutions such as erosion control mats
Sedimentation	<ul style="list-style-type: none"> • Decreased storage capacity • Increased risk of flooding • Buildup of decaying organic material in storage facility • May cause erosion further downstream 	<ul style="list-style-type: none"> • Remove sediments that accumulate in forebays, drainage structures or stormwater facilities • Remove debris and trash frequently, especially after a rain event • Consult a professional to install sediment trapping devices for easier/less costly maintenance



SEDIMENTATION



STRUCTURAL DAMAGE



LACK OF VEGETATION