

Surface Water Management

Goals

1. ~~Increase-Improve~~ water quality by reducing the amount of pollution* conveyed by storm water runoff.
2. Ensure that future land use activities protect and enhance area water quality.
3. Protect and enhance natural ground and surface water drainage systems*.

Policies

- A. Utilize natural systems and non-structural methods* to treat, convey and dispose of stormwater runoff ~~stormwater~~ at the source to the extent allowed by site characteristics.
- B. Restore, protect and enhance the environmental functions and values of rivers, ~~the lakes~~ and stream corridors as a means to enhance water quality and fish and wildlife habitat.
- C. Promote public safety and minimize damage to public and private property from surface water runoff.
- D. Educate and involve the community in opportunities to protect, restore, and enhance water quality.
- E. Protect and improve existing drainage systems and easements by:
 - i. Prohibiting the encroachment of structures and other permanent improvements over public storm drainage lines and within easements and drainage ways.
 - ii. Discouraging modification to existing open drainage ways: ~~*that negatively impact surface water function.~~–
- F. ~~Maintain regulations that require~~ Require new and improved storm drainage facilities to have the capacity to accommodate storm drainage flows from upstream development at full build-out and to comply with the City's Surface Water Management Program.
- G. Require developers to construct required storm drainage facilities and to pay an appropriate system development charge (SDC).
(Comment: All SDC policies in the Comp Plan are being reviewed for consistency, so this policy may be revised).
- H. Develop funding mechanisms:
 - i. To maintain storm drainage facilities;
 - ii. To resolve the deficiencies of the existing ~~and future~~ system; ~~and~~
 - iii. To implement a capital improvement program (CIP) for surface water management.
- I. ~~Maintain regulations that~~ Require all development and redevelopment to implement measures to minimize runoff from the development site during and after construction.
- J. Develop and implement intergovernmental agreements with local, regional, state and federal agencies to implement measures to minimize the quantity of pollutants entering ground and surface waters

from both point and non-point sources*.

- K. ~~Facilitate the extension of the City's sanitary sewer systems and implement surface water management systems to areas within the Urban Services Boundary where septic systems fail.~~

NOTE: Removed. Redundant to Wastewater Policy 5.

- L. ~~Strive to improve~~ the water quality of Oswego Lake and the Willamette and Tualatin Rivers by working with DEQ, ~~Oswego~~ Lake Oswego Corporation and ~~area residents and businesses within the Lake's drainage basin~~ the community to implement water quality programs and projects.

• **New Policies:**

- M. Promote Low Impact Development (LID)* to improve water quality, reduce impervious surfaces, promote infiltration, and preserve open space.

- N. Ensure public and private stormwater systems are planned, developed, and maintained to prevent flooding, protect water quality, and preserve natural surface water systems to protect aquatic habitat;

- O. Ensure that construction and maintenance projects are planned and implemented ~~to cause as little to~~ reduce and improve short and long term harm ~~as possible~~ to the environment.

- P. Facilitate analyses, create designs, and implement solutions to reduce drainage and flooding problems.

~~P. Investigate drainage and flooding problems; facilitate analysis, design, and implement solutions.~~

- Q. Develop incentives to ~~Reduce~~ and off-set the ~~rate of expansion~~ amount of impervious surface in the community.

- R. Use innovative features in transportation project design to reduce or eliminate stormwater runoff.

~~R.~~ NOTE: Erosion is addressed in the goals/policies in "Landslides, erosion and unstable soil"

Definitions:

Surface Water Pollution: the alteration of the physical, chemical, or biological properties of surface water that can create a public nuisance or render such waters harmful, detrimental, or injurious. Pollutants include but are not limited to, chemicals, animal waste, sediment, bacteria, metals, nutrients, hazardous or harmful materials, etc.

Natural ground and surface water drainage systems:

Ground water is water held underground in the soil or in pores and crevices in rock. Surface water is water that collects on the surface of the ground. Natural systems are channels (creeks, rivers, streams, etc) formed in the existing surface topography of the earth prior to changes made by unnatural causes.

Point and non-point sources: *Point source pollution* comes from a single source, such as a wastewater treatment plant, pipes, ditch, etc. *Non-point source pollution* is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters.

Non-structural methods: design that doesn't use pipes, but instead uses features such as street trees, landscaped swales and special paving materials that allow infiltration and limit runoff.

Open Drainage Ways: Commonly used open surface drainage systems include, but are not limited to, shallow ditches, open channels, grassed waterways and sloped banks.

Low Impact Development (LID): An engineering design approach to managing stormwater runoff. LID emphasizes conservation and use of on-site natural features to protect water quality. This approach implements engineered small-scale hydrologic controls to replicate the pre-development hydrologic regime of watersheds through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.

Action Items:

Explore allowing rainwater harvesting for non-potable uses.

Promote streamside stewardship through education and outreach.

Promote a community-wide effort to improve water quality.

GOAL 11, Section 2 Stormwater
Goal 6: Section 2. Water Resources Quality
NEW TITLE:
Surface Water Management

1. Goals

1. ~~Improve water quality by reducing the amount of pollution* conveyed by storm water runoff. problems which cause flooding, erosion and water quality problems.~~
2. ~~The City shall:~~
 - a. ~~2. Reduce water pollution and~~
 2. ~~Ensure that future land use activities protect and enhance area water quality, and;~~
 3. ~~Protect and enhance the functions and values of the natural ground and surface water drainage systems*.~~

Policies

~~SW 1. Minimize future storm drainage problems within and adjacent to the Urban Services Boundary (USB).~~

~~SW 2. Implement measures to protect and improve existing drainage systems and easements by~~

~~SW 3.Aa. Prohibiting the encroachment of structures and other permanent improvements over public storm drainage lines and within public storm drainage easements and drainage ways.~~

- i. ~~SW 4. Discouraging modification to existing open drainage ways and allow only modification when such action is in conformance with City standards. that negatively impact surface water function.~~

~~SW 5. Maintain regulations that require that require new and improved storm drainage facilities to have the adequate capacity to accommodate storm drainage flows from upstream development at full build-out and to comply with the City's Surface Water Management Program projected upstream flows within the respective drainage basin in addition to runoff generated by the development served by these facilities.~~

~~SW 9. Require all storm drainage improvements on private property to Accommodate, and that required as a condition of new development to:~~

- a. ~~Accommodate storm drainage flows of development at full build out; and,~~

- b. ~~Be compatible with the City's Storm Drainage Public Facility and Capital Improvement Plans and Surface Water Management Program.~~

~~SW 6. Require developers to construct required storm drainage facilities and to pay an appropriate system development charge (SDC).~~

~~SW 7. Develop equitable funding mechanisms:~~

- a. ~~For To maintain storm drainage facilities maintenance;~~
- b. ~~To resolve the deficiencies of the existing system; and within developed areas, and provide adequate storm drainage services to developing areas; and,~~

Comment [LW1]: Removed function and values for simplicity's sake.

Comment [LW2]: Deleted. Redundant.

Comment [LW3]: Deleted because modifications must be in conformance with City Standards, so the statement is irrelevant.

Comment [LW4]: Removed the word adequate because the question is "what is adequate"

Comment [LW5]: Combined SW5 & 9 to reduce redundancy.

Comment [LW6]: We are looking at all of the SDC statement in the plan to determine the best way to handle them.

- c. To implement a capital improvement program (CIP) for ~~the storm drainage system~~ surface water management.

SW 8. Utilize natural systems and non-structural methods* to ~~treat, convey and dispose of storm water~~ stormwater of run-off ~~runoff~~ control storm water ~~stormwater~~ run-off at the source ~~as a preference to structural systems~~ to the extent allowed by site characteristics.

~~WQ 1. Protect the natural surface water drainage systems and enhance water quality by treating and controlling run-off and pollution at the source.~~

~~WQ 2. Favor the use of the natural drainage system and other non-structural methods to treat, convey and dispose of run-off.~~

Comment [LW7]: Combined three policies to remove redundancy.

SW 9. Require all storm drainage improvements on private property, and that required as a condition of new development to:

- a. Accommodate storm drainage flows of development at full build-out; and,
- b. Be compatible with the City's Storm Drainage Public Facility and Capital Improvement Plans and Surface Water Management Program.

~~WQ 1. Protect the natural surface water drainage systems and enhance water quality by treating and controlling run-off and pollution at the source.~~

~~WQ 2. Favor the use of the natural drainage system and other non-structural methods to treat, convey and dispose of run-off.~~

~~WQ 3. Lake Oswego's management of surface water shall:~~

Comment [LW8]: The chapter is about managing surface water so remove this line but keep policies.

- a. Restore, protect and enhance water quality and the physical and biological integrity of rivers, lakes and stream corridors and their associated environmental values including natural vegetation, fish and wildlife habitats;

~~WQ 9. Restore the environmental functions and values of stream corridors as a means to enhance water quality.~~

Combined a & WQ9:

WQ 9. Restore, protect and enhance the environmental functions and values of rivers, the lake and stream corridors as a means to enhance water quality and fish and wildlife habitat.

- b. Promote public safety and minimize damage to public and private property ~~by~~ from surface water run-off; and,
- c. Educate and involve the community in opportunities to protect, restore, ~~protect~~ and enhance water quality.

~~WQ 4. Fund surface water management programs in a manner which allocates costs based upon the impact a development has upon the surface water management system.~~

Comment [LW9]: Deleted. Redundant to policy SW7.

WQ 5. Maintain regulations that require that rRequire all development and redevelopment to: i implement measures to minimize run-off from the development site during and after construction.

- a. Comply with applicable local, state and federal water quality and erosion control standards; and,

Comment [LW10]: Compliance is required.

b. ~~Implement measures to minimize run-off from the development site during and after construction.~~

WQ 6. Develop and implement intergovernmental agreements with local, regional, state and federal agencies to implement measures to minimize the quantity of pollutants entering ground and surface waters from both point and non-point sources*.

WQ 7. ~~Facilitate the extension of the City's sanitary sewer systems to areas within the Urban Services Boundary where failing septic systems are contaminating ground and surface waters, provided:~~

a. ~~Those properties benefiting from sewer extension pay their commensurate share of the cost of service; and,~~

b. ~~Annexation occurs prior to any property receiving service.~~

Comment [LW11]: Removed. Redundant to Wastewater Policy 5.

Comment [LW12]: Redundant to Annexation Policies in Inspiring Spaces and Places.

WQ 8. ~~Strive to~~ Improve the water quality of Oswego Lake ~~and the Willamette and Tualatin Rivers~~ by working with DEQ, ~~Oswego Lake~~ Oswego Corporation and ~~area residents and businesses within the Lake's drainage basin the~~ community to implement water quality programs and projects.

- ~~WQ9. Restore the environmental functions and values of stream corridors as a means to enhance water quality.~~

New Policies:

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Ensure public and private stormwater systems are planned, developed, and maintained to prevent flooding, protect water quality, and preserve natural surface water systems to protect aquatic habitat.

Ensure that construction and maintenance projects are planned and implemented reduce and improve short and long term harm to the environment.

Facilitate analyses, create designs, and implement solutions to reduce drainage and flooding problems.

Develop incentives to reduce and off-set the amount of impervious surface in the community.

Use innovative features in transportation project design to reduce or eliminate stormwater runoff.

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