

Ogden City

City General Stormwater Ordinance

Storm Water Management Plan 2010



Ogden City's general stormwater ordinance is found in Title 9, Chapter 7. It may be found at http://sterlingcodifiers.com/codebook/index.php?book_id=515

The construction stormwater ordinance is Article B.

The post-construction stormwater ordinance will be Article C. It is not yet adopted, and is included here.

Article C. Post-Construction Stormwater Management

9-7C-1: DEVELOPMENT OF A STORMWATER DESIGN MANUAL

Ogden City may furnish additional policy, criteria and information including specifications and standards, for the proper implementation of the requirements of this article and may provide such information in the form of a Stormwater Design Manual. This manual will include a list of acceptable stormwater treatment practices, including the specific design criteria and operation and maintenance requirements for each stormwater practice. The manual may be updated and expanded from time to time, at the discretion of the local review authority, based on improvements in engineering, science, monitoring and local maintenance experience. Stormwater treatment practices that are designed and constructed in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards.

9-7C- 2: WAIVERS TO STORMWATER MANAGEMENT REQUIREMENTS

A. Waivers for Providing Post-Construction Stormwater Management

Every applicant shall provide for stormwater management as required by this article, unless a written request is filed to waive this requirement. Requests to waive the Post-construction Stormwater Pollution Prevention Plan requirements shall be submitted to Ogden City for approval.

The minimum requirements for stormwater management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:

1. It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this article.
2. Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by Ogden City and the implementation of the plan is required by local article.
3. Provisions are made to manage stormwater by an off-site facility. The off-site facility is required to be in place, to be designed and adequately sized to provide a level of stormwater control that is equal to or greater than that which would be afforded by on-site practices and there is a legally obligated entity responsible for long-term operation and maintenance of the stormwater practice.
4. Ogden City finds that meeting the minimum on-site management requirements is not feasible due to the natural or existing physical characteristics of a site.
5. Non-structural practices will be used on the site that reduce: a) the generation of stormwater from the site, b) the size and cost of stormwater storage and c) the pollutants generated at the site. These non-structural practices are explained in detail

in the current design manual and the amount of credit available for using such practices shall be determined by Ogden City.

B. In instances where one of the conditions above applies, Ogden City may grant a waiver from strict compliance with these stormwater management provisions, as long as acceptable mitigation measures are provided. However, to be eligible for a variance, the applicant must demonstrate to the satisfaction of Ogden City that the variance will not result in the following impacts to downstream waterways:

- Deterioration of existing culverts, bridges, dams, and other structures;
- Degradation of biological functions or habitat;
- Accelerated streambank or streambed erosion or siltation;
- Increased threat of flood damage to public health, life, or property.

Furthermore, where compliance with minimum requirements for stormwater management is waived, the applicant will satisfy the minimum requirements by meeting one of the mitigation measures selected by Ogden City. Mitigation measures may include, but are not limited to, the following:

1. The purchase and donation of privately owned lands, or the grant of an easement to be dedicated for preservation and/or reforestation. These lands should be located adjacent to the stream corridor in order to provide permanent buffer areas to protect water quality and aquatic habitat,
2. The creation of a stormwater management facility or other drainage improvements on previously developed properties, public or private, that currently lack stormwater management facilities designed and constructed in accordance with the purposes and standards of this article,
3. Monetary contributions (Fee-in-Lieu) to fund stormwater management activities such as research and studies (e.g., regional wetland delineation studies, stream monitoring studies for water quality and macroinvertebrates, stream flow monitoring, threatened and endangered species studies, hydrologic studies, and monitoring of stormwater management practices.

C. Fee in Lieu of Stormwater Management Practices.

Where Ogden City waives all or part of the minimum stormwater management requirements, or where the waiver is based on the provision of adequate stormwater facilities provided downstream of the proposed development, the applicant shall be required to pay a fee in an amount as determined by Ogden City.

When an applicant obtains a waiver of the required stormwater management, the monetary contribution required shall be in accordance with a fee schedule (unless the developer and the stormwater authority agree on a greater alternate contribution) established by Ogden City, and based on the cubic feet of storage required for stormwater management of the development in question. All of the monetary contributions shall be credited to an appropriate capital improvements program project,

and shall be made by the developer prior to the issuance of any building permit for the development.

D. Dedication of land

In lieu of a monetary contribution, an applicant may obtain a waiver of the required stormwater management by entering into an agreement with Ogden City for the granting of an easement or the dedication of land by the applicant, to be used for the construction of an off-site stormwater management facility. The agreement shall be entered into by the applicant and Ogden City prior to the recording of plats or, if no record plat is required, prior to the issuance of the building permit.

9-7C- 3: General Performance Criteria for Post-Construction Stormwater Management

Unless judged by Ogden City to be exempt or granted a waiver, the following performance criteria shall be addressed for stormwater management at all sites:

A. All site designs shall establish stormwater management practices to control the peak flow rates of stormwater discharge associated with specified design storms and reduce the generation of stormwater. These practices should seek to utilize pervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity.

City approved values for peak flow rates and design storms for the Ogden area are found in the Ogden City Stormwater Design Manual.

B. All stormwater runoff generated from new development shall not discharge untreated stormwater directly into a jurisdictional wetland or local water body without adequate treatment. Where such discharges are proposed, the impact of the proposal on wetland functional values shall be assessed using a method acceptable to Ogden City. In no case shall the impact on functional values be any less than allowed by the Army Corp of Engineers (ACE) or the Utah Division of Water Quality, (DWQ) which are found in the City Stormwater Design Manual.

C. For new development, structural stormwater treatment practices (STP) shall be designed to remove 80% of the average annual post development . It is presumed that a STP complies with this performance standard if it is:

1. sized to capture the prescribed water quality volume (WQv).
2. designed according to the specific performance criteria outlined in the local Stormwater Design Manual,
3. constructed properly, and

4. maintained regularly.

D. To protect stream channels from degradation, a specific channel protection criteria shall be provided as prescribed in the current stormwater manual.

E. Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

F. Certain industrial sites are required to prepare and implement a stormwater pollution prevention plan, and shall file a notice of intent (NOI) under the provisions of the National Pollutant Discharge Elimination System (NPDES) general permit. The stormwater pollution prevention plan requirement applies to both existing and new industrial sites.

G. Stormwater discharges from land uses or activities with higher potential pollutant loadings, known as “hotspots”, may require the use of specific structural STPs and pollution prevention practices.

H. Prior to design, applicants are required to consult with Ogden City to determine if they are subject to additional stormwater design requirements.

I. The calculations for determining peak flows as found in the Stormwater Design Manual shall be used for sizing all stormwater management practices.

9-7C- 4: Basic Stormwater Management Design Criteria

Specific stormwater design criteria may be found in the Ogden City Stormwater Design Manual. Stormwater management practices are to be based on these factors: site design feasibility, conveyance issues, pretreatment requirements, treatment/geometry conditions, environmental/landscaping standards, and maintenance needs.

A. Minimum Control Requirements

All stormwater management practices will be designed so that the specific storm frequency storage volumes (e.g., recharge, water quality, channel protection, 10 year, 100 year) as identified in the current Stormwater Design Manual are met, unless Ogden City grants the applicant a waiver or the applicant is exempt from such requirements. In addition, if hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, Ogden City reserves the right to impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.

B. Site Design Feasibility

Stormwater management practices for a site shall be chosen based on the physical conditions of the site. Among the factors that should be considered:

1. Topography
2. Maximum Drainage Area
3. Depth to Water Table
4. Soils
5. Slopes
6. Terrain
7. Head
8. Location in relation to environmentally sensitive features or ultra-urban areas

Applicants shall consult the Stormwater Design Manual for guidance on the factors that determine site design feasibility when selecting a stormwater management practice.

C. Conveyance Issues

All stormwater management practices shall be designed to convey stormwater to allow for the maximum removal of pollutants and reduction in flow velocities. This shall include, but not be limited to:

1. Maximizing of flow paths from inflow points to outflow points
2. Protection of inlet and outfall structures
3. Elimination of erosive flow velocities
4. Providing of under drain systems, where applicable
5. The Stormwater Design Manual shall provide detailed guidance on the requirements for conveyance for each of the approved stormwater management practices.

D. Pretreatment Requirements

Every stormwater treatment practice shall have an acceptable form of water quality pretreatment, in accordance with the pretreatment requirements found in the current Stormwater Design Manual. Certain stormwater treatment practices, as specified in the Stormwater Design Manual, are prohibited even with pretreatment in the following circumstances:

1. Stormwater is generated from highly contaminated source areas known as “hotspots”
2. Stormwater is carried in a conveyance system that also carries contaminated, non-stormwater discharges
3. Stormwater is being managed in a designated groundwater recharge area.
4. Certain geologic conditions exist (e.g., karst) that prohibit the proper pretreatment of stormwater.

E. Treatment/Geometry Conditions

All stormwater management practices shall be designed to capture and treat stormwater runoff according to the specifications outlined in the Stormwater Design Manual. These

specifications will designate the water quantity and quality treatment criteria that apply to an approved stormwater management practice.

F. Landscaping Plans Required

All stormwater management practices must have a landscaping plan detailing both the vegetation to be in the practice, and how and who will manage and maintain this vegetation. This plan must be prepared by a registered landscape architect or soil conservation district.

G. Maintenance Agreements

All stormwater treatment practices shall have an enforceable operation and maintenance agreement to ensure the system functions as designed. This agreement will include any and all maintenance easements required to access and inspect the stormwater treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater treatment practice. In addition, a legally binding covenant specifying the parties responsible for the proper maintenance of all stormwater treatment practices shall be secured prior to issuance of any permits for land disturbance activities.

H. Non-Structural Stormwater Practices

The use of non-structural stormwater treatment practices is encouraged in order to minimize the reliance on structural practices. Credit in the form of reductions in the amount of stormwater that must be managed can be earned through the use of non-structural practices that reduce the generation of stormwater from the site. These non-structural practices are explained in detail in the current design manual and applicants wishing to obtain credit for use of non-structural practices must ensure that these practices are documented and remain unaltered by subsequent property owners.

9-7C- 5: Requirements for Post-Construction Stormwater Pollution Prevention Plan Approval

A. Post-Construction Stormwater Pollution Prevention Plan Required for All Developments.

No application for development will be approved unless it includes a Post-Construction Stormwater Pollution Prevention Plan [PCSWPPP] detailing in concept how runoff and associated water quality impacts resulting from the development will be controlled or managed. This plan must be prepared by an individual approved by Ogden City and must indicate whether stormwater will be managed on-site or off-site and, if on-site, the general location and type of practices.

The PCSWPPP(s) shall be referred for comment to all other interested agencies, and any comments must be addressed in a final Post-Construction Stormwater Pollution

Prevention Plan. This final plan must be signed by a licensed professional engineer (PE), who will verify that the design of all stormwater management practices meet the submittal requirements outlined in the Submittal Checklist found in the Stormwater Design Manual. No building, grading, or sediment control permit shall be issued until a satisfactory final PCSWPPP, or a waiver thereof, shall have undergone a review and been approved by Ogden City after determining that the plan or waiver is consistent with the requirements of this article.

B. Post-Construction Stormwater Pollution Prevention Plan Requirements

A Post-Construction Stormwater Pollution Prevention Plan [PCSWPPP] shall be required with all permit applications and will include sufficient information (e.g., maps, hydrologic calculations, etc) to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing stormwater generated at the project site. The intent of this conceptual planning process is to determine the type of stormwater management measures necessary for the proposed project, and ensure adequate planning for management of stormwater runoff from future development. To accomplish this goal the following information shall be included in the concept plan:

1. A map (or maps) indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural stormwater management and sediment control facilities. The map(s) will also clearly show proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading; a written description of the site plan and justification of proposed changes in natural conditions may also be required.
2. Sufficient engineering analysis to show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this article and the specifications of the Stormwater Design Manual.
3. A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project and a description of the watershed and its relation to the project site. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site. Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development.
4. A written description of the required maintenance burden for any proposed stormwater management facility.
5. Ogden City may also require a PCSWPPP to consider the maximum development potential of a site under existing zoning, regardless of whether the applicant presently intends to develop the site to its maximum potential.

For development or redevelopment occurring on a previously developed site, an applicant shall be required to include within the PCSWPPP measures for controlling

existing stormwater runoff discharges from the site in accordance with the standards of this Article to the maximum extent practicable.

C. Final Post-Construction Stormwater Pollution Prevention Plan Requirements

After review of the Post-Construction Stormwater Pollution Prevention Plan, and modifications to that plan as deemed necessary by Ogden City, a final PCSWPPP must be submitted for approval. The final PCSWPPP, in addition to the information from the concept plan, shall include all of the information required in the Final Post-Construction Stormwater Pollution Prevention Plan checklist found in the Stormwater Design Manual.

This includes:

1. Contact Information

The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected.

2. Topographic Base Map

A 1" = 200' topographic base map of the site which extends a minimum of 300 feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and manmade features not otherwise shown.

3. Calculations

Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this article. Such calculations shall include (i) description of the design storm frequency, intensity and duration, (ii) time of concentration, (iii) Soil Curve Numbers or runoff coefficients, (iv) peak runoff rates and total runoff volumes for each watershed area, (v) infiltration rates, where applicable, (vi) culvert capacities, (vii) flow velocities, (viii) data on the increase in rate and volume of runoff for the design storms referenced in the Stormwater Design Manual, and (ix) documentation of sources for all computation methods and field test results.

4. Soils Information

If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

5. Maintenance and Repair Plan

The design and planning of all stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued function. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

6. Landscaping plan

The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect or by the soil conservation district.

7. Maintenance Easements

The applicant must ensure access to all stormwater treatment practices at the site for the purpose of inspection and repair by securing all the maintenance easements needed on a permanent basis. These easements will be recorded with the plan and will remain in effect even with transfer of title to the property.

8. Maintenance Agreement

The applicant must execute an easement and an inspection and maintenance agreement binding on all subsequent owners of land served by an on-site stormwater management measure in accordance with the specifications of this article.

9. Erosion and Sediment Control Plans for Construction of Stormwater Management Measures

The applicant must prepare an erosion and sediment control plan for all construction activities related to implementing any on-site stormwater management practices.

10. Other Environmental Permits

The applicant shall assure that all other applicable environmental permits have been acquired for the site prior to approval of the final stormwater design plan.

D. Performance Bond/Security

Ogden City may, at its discretion, require the submittal of a performance security or bond prior to issuance of a permit in order to insure that the stormwater practices are installed by the permit holder as required by the approved stormwater management plan. The amount of the installation performance security shall be the total estimated construction cost of the stormwater management practices approved under the permit, plus 25%. The performance security shall contain forfeiture provisions for failure to complete work specified in the stormwater management plan.

The installation performance security shall be released in full only upon submission of "as built plans" and written certification by a registered professional engineer that the stormwater practice has been installed in accordance with the approved plan and other applicable provisions of this article. Ogden City will make a final inspection of the stormwater practice to ensure that it is in compliance with the approved plan and the provisions of this article. Provisions for a partial pro-rata release of the performance security based on the completion of various development stages can be done at the discretion of Ogden City.

E. As Built Plans

All applicants are required to submit actual “as built” plans for any stormwater management practices located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be certified by a professional engineer. A final inspection by Ogden City is required before the release of any performance securities can occur.

In addition to the above requirements, and the requirements in 9-7A-5D, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect or by the soil conservation district, and must be approved prior to receiving a permit.

9-7C-6: Maintenance and Repair of Stormwater Facilities

A. Maintenance Easement

Prior to the issuance of any permit that has an stormwater management facility as one of the requirements of the permit, the applicant or owner of the site must execute a maintenance easement agreement that shall be binding on all subsequent owners of land served by the stormwater management facility. The agreement shall provide for access to the facility at reasonable times for periodic inspection by Ogden City, or its contractor or agent, and for regular or special assessments of property owners to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this article. The easement agreement shall be recorded by Ogden City in the land records.

B. Maintenance Covenants

Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by Ogden City and recorded into the land record prior to final plan approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of the stormwater management facility. The covenant shall also include plans for periodic inspections to ensure proper performance of the facility between scheduled cleanouts.

Ogden City, in lieu of a maintenance covenant, may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this chapter and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

C. Requirements for Maintenance Covenants

All stormwater management facilities must undergo, at the minimum, an annual inspection to document maintenance and repair needs and ensure compliance with the requirements of this article and accomplishment of its purposes. These needs may include; removal of silt, litter and other debris from all catch basins, inlets and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any maintenance needs found must be addressed in a timely manner, as determined by Ogden City and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater management facility.

D. Inspection of Stormwater Facilities

Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other stormwater treatment practices.

E. Right-of-Entry for Inspection

When any new drainage control facility is installed on private property, or when any new connection is made between private property and a public drainage control system, sanitary sewer or combined sewer, the property owner shall grant to Ogden City the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this article is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this article.

F. Failure to Maintain Practices

If a responsible party fails or refuses to meet the requirements of the maintenance covenant, Ogden City, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, Ogden City shall notify the party responsible for maintenance of the stormwater management facility in writing. Upon receipt of that notice, the responsible person shall have 7 days to affect maintenance and repair of the facility in an approved manner. After proper notice, Ogden City may assess the owner(s) of the facility for the cost of repair work and any penalties; and the

cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the county.