

BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF ADOPTING THE)	ORDINANCE NO. 79-81
INTERIM JOHNSON CREEK BASIN)	
STORMWATER RUNOFF PLAN)	Introduced by the
)	Solid Waste/Public
)	Facilities Committee

THE COUNCIL OF THE METROPOLITAN SERVICE DISTRICT HEREBY ORDAINS:

Section 1. Purpose and Authority

a. The purpose of this ordinance is to reaffirm action taken by Metro Council on March 22, 1979, through adoption of Resolution No. 79-35 to designate the Johnson Creek Drainage Basin in the District as an area having significant impact on the orderly and responsible development of the metropolitan area and to now proceed with adoption of an interim functional plan therefor. It is the intent of the Council that said plan be temporary and be in effect only until superseded by a functional plan for regional drainage or a comprehensive Johnson Creek Basin drainage plan.

b. This ordinance, and the plan adopted hereby, are adopted pursuant to 1977 Or. Laws, ch. 665, sec. 18, ORS 268.310(3) and ORS 268.360(1).

Section 2. Findings

The Council finds:

a. That the District is authorized to designate areas having significant impact upon the orderly and responsible development of the metropolitan area and adopt functional plans for those areas.

b. That the Johnson Creek Drainage Basin is a multi-jurisdictional area susceptible to frequent flooding and water

pollution which can most effectively be controlled on a regional basis, and is therefore an area having significant impact on the orderly and responsible development of the metropolitan area.

c. That the proposed "Metropolitan Service District Interim Johnson Creek Basin Stormwater Runoff Plan," (formerly entitled "Interim Guidelines For Water Runoff Management in the Johnson Creek Basin, 6-14-79") is consistent with Statewide Land Use Planning Goals as indicated in Appendix A to said plan.

Section 3. Plan Adoption

a. The Interim Johnson Creek Basin Stormwater Runoff Plan (hereinafter the "Plan"), dated December, 1979, a copy of which is attached hereto and incorporated herein, is hereby adopted.

b. The Plan shall continue in effect until such time as it is superseded by a master regional drainage plan or a Comprehensive Johnson Creek Basin drainage plan.

c. The property to which the Plan applies is as indicated on the map entitled "Johnson Creek Drainage Basin," dated November, 1979, which map is attached to the Plan as Appendix B thereto.

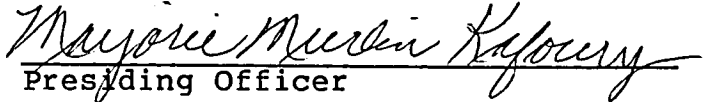
Section 4. Implementation

a. It is the intent of the Council that the Plan be implemented primarily by local governments having jurisdiction within the Johnson Creek Basin. The Plan shall be applied by the District in the manner provided by 1977 Or. Laws, ch. 665, sec. 18(3).

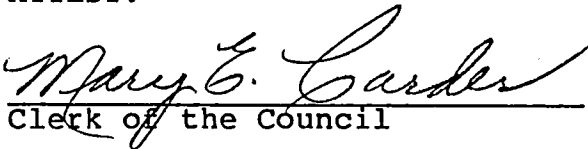
b. Cities and counties with land inside the Johnson Creek Drainage Basin shall prepare and adopt plans or plan provisions, and appropriate implementing measures, sufficient to carry out the terms and provisions of the Plan by July 1, 1980. Prior to and after said

date, the District may review whatever local plans are in effect to insure that said plans and land use actions taken thereunder conform to the Plan. Such reviews shall be initiated and conducted pursuant to procedures to be prescribed by the Council for review of local comprehensive plans.

ADOPTED by the Council of the Metropolitan Service District
this 24th day of January, 1979.


Presiding Officer

ATTEST:


Clerk of the Council

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6139/81

METROPOLITAN SERVICE DISTRICT
INTERIM JOHNSON CREEK BASIN STORMWATER RUNOFF PLAN

December, 1979

Prepared by the
JOHNSON CREEK TASK FORCE
OF THE
METROPOLITAN SERVICE DISTRICT

TABLE OF CONTENTS

	<u>Page</u>
A. FLOODPLAIN AND FLOODWAY POLICIES	1
B. DRAINAGE POLICIES.	2
C. VEGETATION POLICIES	5

1 INTERIM JOHNSON CREEK BASIN STORMWATER RUNOFF PLAN

2 The following policies and standards shall apply basinwide to any
3 subdivision of four or more lots, Public Utility District's (PUD) or
4 building permits for multi-family (4 or more units), commercial,
5 industrial and public buildings.

6 A. FLOODPLAIN AND FLOODWAY POLICIES

7 Policy: To manage 100-year floodplains and floodways in order
8 to protect their natural function, as well as to protect the
9 property of those individuals currently living within and
10 along the floodplain boundary.

11 The Federal Insurance Administration of the Department of
12 Housing and Urban Development has adopted guidelines concerning
13 the development of lands within the 100-year floodplain.

14 Almost all jurisdictions within the Basin have qualified for
15 the National Flood Insurance Program, and must follow these
16 guidelines. In addition to federal guidelines, the following
17 standards are recommended for the lands within the 100-year
18 floodplain of Johnson Creek.

19 Standards: (Within 100-year floodplain)

- 20 1. All jurisdictions within the Basin must adopt rules and
21 regulations to qualify for the National Flood Insurance
22 Program if they have not done so already.
- 23 2. Construction and development shall be in such a manner
24 that flow of floodwaters will not be restricted.
- 25 3. Materials which may be inundated shall be of such strength
26 and quality that they will not deteriorate, and they must

1 be able to withstand water pressure or the high velocity
2 of flowing water.

- 3 4. The finished flow elevations of buildings shall be a
4 minimum of two feet above the 100-year flood elevation.
- 5 5. Whenever possible, the floodplain shall be retained as
6 open space and used for recreation or special storage.
- 7 6. The dedication of lands within the floodplain is encour-
8 aged if consistent with the future River Loop Park System
9 Plan and responsibility for management of the lands is
10 established beforehand.

11 Standards: (Within Floodway Only)

- 12 1. No new building structures or landfills shall be allowed
13 in the floodway.
- 14 2. The floodway should be retained as open space and used for
15 recreation purposes.

16 B. DRAINAGE POLICIES

17 Findings:

18 Analysis of the hydrologic characteristics of the Johnson
19 Creek Basin suggest that:

- 20 . Johnson Creek experiences flash flooding during storms,
21 causing considerable flood damage. This flooding is
22 exacerbated due to increased stormwater runoff from urban
23 development within the drainage basin of Johnson Creek.
- 24 . With the limited information we have about the Basin, it
25 appears that large amounts of stormwater now enter Johnson
26 Creek through the groundwater from the north and by sur-

1 face runoff from the south.

- 2 . An effective means of controlling urban stormwater runoff
3 is by minimizing impervious surfaces and providing for
4 natural water percolation where soil conditions permit.

5 Policy: To minimize the amount and rate of stormwater runoff
6 reaching Johnson Creek. The runoff which cannot be returned to
7 the soil should be directed to the Creek so as not to contri-
8 bute to the peak flood flow or degrade in-stream water quality.

9 Standards:

- 10 1. Stormwater drainage systems shall place emphasis on
11 maximizing natural water percolation, and on utilizing
12 natural drainageways with adequate capacity for surface
13 flows.
- 14 2. Water from newly constructed roadways shall be prevented
15 from flowing from the road right-of-way in an uncontrolled
16 fashion.
- 17 3. Natural drainageways shall be riprapped or otherwise
18 stabilized as necessary below drainage and culvert dis-
19 charge points for a distance sufficient to convey the
20 discharge without channel erosion.
- 21 4. Runoff from impervious surfaces shall be collected and
22 transported only to those local drainageways which have
23 sufficient capacity to accept the discharge.
- 24 5. Sediment retention shall be provided for during the con-
25 struction phase and shall be installed in such a manner
26 within each development to minimize sedimentation in

1 Johnson Creek during the entire construction cycle.

2 6. The overall drainage system shall be completed and made
3 operational at the earliest possible time during con-
4 struction.

5 7. Alterations to major drainageways shall be prohibited
6 except when approved by local jurisdiction engineers for
7 road crossings and drainage improvements.

8 8. The local jurisdictions shall require all of the appli-
9 cable development categories to submit drainage plans
10 which will accomplish the following;

11 a. Outline the methods to be used for minimizing the
12 amount and rate of runoff from the development,
13 measures for preventing reduction of in-basin storage
14 and measures to be used to prevent property damage
15 from uncontrolled drainage.

16 b. An analysis of detention/storage as an alternative
17 method of stormwater runoff control, (e.g., separate
18 plans, with subdivision applications, with building
19 permit processes as they exist, etc.) The appro-
20 priate procedures for the submission of these
21 drainage plans will be left to local jurisdiction
22 discretion.

23 9. The rate of runoff from a developed site during a 25-year
24 recurrence interval storm shall not exceed the predevelop-
25 ment rate of runoff released based on a 10-year recurrence
26 interval storm as defined by each jurisdiction unless the

1 local jurisdiction has provided a detention basis down-
2 stream from the site which will receive stormwater from
3 the development and is designed to fulfill the intent of
4 these guidelines. Approved methods to satisfy this
5 requirement in order of preference are:

- 6 a. groundwater recharge (by drainage swales, ponding
7 areas, drywells, open channels or other means)
- 8 b. surface storage
- 9 c. underground storage

10 10. Installation of stormwater management systems will be the
11 responsibility of the developer.

12 C. VEGETATION POLICIES

13 Policy: To retain and protect existing vegetation in steeply
14 sloped (20 percent above) and landslide prone areas to decrease
15 the potential for erosion, decrease the amount of surface water
16 runoff, to preserve areas of natural percolation and help
17 stabilize landslide-prone areas.

18 Standards:

- 19 1. Riparian vegetation that protects stream banks from
20 eroding shall be maintained or enhanced along major
21 drainageways for a minimum of 20 feet from the channel
22 bottom centerline plus one additional foot for each one
23 percent of bank slope greater than ten percent; along
24 minor drainageways for a minimum of ten feet from the
25 channel bottom centerline plus one additional foot for
26 each one percent of slope greater than ten percent; along

1 seasonal drainageways for a minimum of ten feet from the
2 channel bottom centerline. This standard policy should
3 not be construed to mean that clearing of debris from the
4 streambed itself is prohibited; normal clearance of the
5 streambed to allow for unimpaired flow of water is en-
6 couraged.

- 7 2. Additional vegetative retention policies are encouraged.
8 Jurisdictions should adopt policies such as the following:
9 . Slope stabilization and revegetation plans should be in-
10 cluded as part of the developer's drainage plans.
11 . Minimization of removal of vegetation during the construc-
12 tion period, and replacement/enhancement of vegetation
13 upon completion of construction.
14 . Minimum of tree cutting.

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APPENDIX A

COMPLIANCE WITH STATEWIDE PLANNING GOALS

GOAL #1 CITIZEN INVOLVEMENT. The Johnson Creek Task Force was created to coordinate a flood control and abatement program in the Johnson Creek Basin. The Task Force was further charged in their charter with ensuring "adequate representation of the interests of citizens, local governments, utilities, businesses and others in the Basin." To assure broad representation, membership on the Task Force was established to include representatives of the following organizations, agencies, and jurisdictions:

1. Metro Council
2. Gresham City Council
3. Happy Valley City Council
4. Milwaukie City Council
5. Portland City Council
6. Clackamas County Commission
7. Multnomah County Commission
8. Army Corps of Engineers
9. Congressman Duncan's staff
10. City of Portland Park Bureau
11. Citizen-at-large owning creek frontage property
12. Citizen-at-large owning property in the Basin
13. Building or development industry
14. Business interests
15. State legislature

Monthly meetings of the Johnson Creek Task Force have been held since May 1979, and members of the public have regularly participated. A mailing list was established with the assistance of the Task Force members and has been maintained to widely disseminate information on the Task Force's work. The Task Force has gone beyond conventional citizen participation mechanisms, and, in conjunction with basin neighborhood groups, sponsored a "Johnson Creek Clean-Up Day" which involved citizens and citizens groups from throughout the Basin.

The Plan has been thoroughly discussed and revised during meetings of the Task Force with citizens, local governments, federal agencies and Metro all providing input. The numerous and substantial revisions to the Plan clearly show a substantial and meaningful opportunity to participate and influence the final outcome has been afforded.

Goal #1 has been fully complied with and the substantial public involvement mechanism that has been developed will be continued during preparation of a comprehensive drainage management plan for the Johnson Creek Basin.

GOAL #2 LAND USE PLANNING. The Plan has been developed in large part through the concerted efforts of all the local jurisdictions in

the Johnson Creek Basin. The direct participation by all jurisdictions in this effort was for the dual purpose of ensuring the maximum degree of coordination with local ordinances affecting flooding and pollution problems in the Johnson Creek Basin, and resolving the need for and nature of interim development control measures.

The Plan is, however, intended to be more than a coordinated composit of local efforts to control flooding and pollution in the Johnson Creek Basin. Under 1977 Or. Laws, ch. 665, sec. 18, Metro may adopt functional plans and recommend or require that local plans be changed to conform to adopted functional plans. Thus, while there has been a concerted effort to ensure consistency with local plans and implementing ordinances, the Plan is not limited by the efforts of any single member jurisdiction.

The Plan is, by its terms, limited to the period of time that will be required to prepare and adopt a comprehensive drainage management plan for Johnson Creek. Because the Plan is intended to be effective for a fixed and short period of time and because it is adopted to address the problem of development in the interim before adoption of the final drainage management plan, the inquiry into issues, problems, inventories and factual information has been focused and limited. Such a focus is particularly appropriate where an immediate threat to property and health is present, the issues, problems and alternatives are complex and the ultimate policy choices will involve difficult analysis and balancing of costs and benefits.

The issues and problems that led to the endorsement of the Plan by the Task Force were framed largely by the existing extensive body of technical information on the problems in the Johnson Creek Basin which was outlined and summarized for the Task Force in "An Annotated Bibliography of the Johnson Creek Basin, June 14, 1979." The "Draft Work Statement, Johnson Creek Flood Control Facility Plan, Phase I" that was distributed to the Task Force in May 1979, also outlined the issues and problems that needed to be addressed. The identified issues and problems were further detailed and refined during meetings of the Task Force and by correspondence and materials submitted to the Task Force which are a part of the minutes and record of the Johnson Creek Task Force.

The result of these focused inquiries was a determination that there is a need to adopt the Plan as an interim functional plan to ensure that the existing threat to the health and safety of basin residents is not exasperated by repeating past development mistakes during the interim required to develop a more comprehensive and adequate functional plan response.

The Plan has been prepared in compliance with the requirements of Goal #2. No exceptions have been taken to any statewide goals since the plan is consistent with each applicable goal.

GOAL #3 AGRICULTURAL LANDS. The largest part of the Johnson Creek

drainage basin is located within the Urban Growth Boundary where Goal #3 is inapplicable. In the portion of the Basin outside the Urban Growth Boundary, the floodplain/floodway, drainage and vegetation standards all apply to non-agricultural uses and should have no impact on agricultural practices. The requirements imposed on construction activities in the Basin are consistent with the Goal #3 requirement that agricultural lands be preserved and maintained for farm use.

GOAL #4 FOREST LANDS. The Plan precludes development in the floodway and restrict development in the floodplain. There is a clear emphasis on enhancing natural percolation to minimize flooding problems. The Plan discourages removal of vegetation and tree cover and encourages preservation of forested lands in the floodplain as a functional buffer available for scenic and recreational use.

GOAL #5 OPEN SPACES, SCENIC AND HISTORIC AREAS, AND NATURAL RESOURCES. The Plan which is designed primarily to reduce flooding and pollution in the Johnson Creek Basin will have the effect of conserving open space and protecting natural and scenic resources. Dedication of lands in the floodplain for recreation and open space use is encouraged and development in the floodplain is prohibited or discouraged. The drainage and vegetation standards will, by requiring implementation of natural water percolation techniques and retention of vegetative cover, have the effect of conserving lands that might otherwise been developed in a manner that conflicted with open space, scenic and natural resource use.

GOAL #6 AIR, WATER AND LAND RESOURCES QUALITY. Improvement of the water quality in Johnson Creek is an express policy in the Plan. While the final drainage management plan will address both point and non-point sources of pollution, the Plan addresses only non-point sources. The Plan includes standards that will reduce both the quantity of stormwater reaching Johnson Creek, and the amount of sediment. The net impact on both the water quality of Johnson Creek and the land resources in the Basin will be beneficial.

GOAL #7 AREAS SUBJECT TO NATURAL DISASTER AND HAZARDS. The protection of life and property subject to flooding by Johnson Creek is the central purpose of the Plan. Local jurisdictions are required to qualify for the National Flood Insurance Program. Floodplain construction must be accomplished in a manner that will not restrict floodwater flow, construction materials that will withstand flooding must be required, and finished structure elevations must be two feet above the 100-year flood elevation. The standards are adopted to ensure that the current threat to life and property posed by Johnson Creek is not compounded before a comprehensive solution is adopted.

GOAL #8 RECREATIONAL NEEDS. The Plan is consistent with Goal #8 in that dedication of lands for parks and open space use is encouraged and lands suitable for recreational use will be generated by compliance with the drainage standards.

GOAL #9 ECONOMY OF THE STATE. The impact of the Plan on the

economy of the state will be slight. The standards required in the Plan will increase development costs within the Basin and limit or preclude development within the floodplain. However, the present threat to life and property in the Johnson Creek Basin vividly displays that the economies of allowing development in floodplains and development without attention to stormwater runoff are illusory and shortrun. Substantial public and private expenditures have been and will be required to correct past inattention to stormwater runoff management. Ultimately, economic diversification in the Basin will be inhibited unless acceptable solutions to the flooding problems are found. The Plan is a first step in achieving a comprehensive solution and it is consistent with the goal of achieving economic diversity.

GOAL #10 HOUSING. Much of the preceding discussion regarding Goal #9 is also applicable to Goal #10. The restrictions on residential development in the floodplain are compelled by Goal #7 and whatever shortrun costs such restrictions may add to housing costs will be offset by long-run savings through reduced property damages and flood control costs. The impact of the drainage standards on housing costs during the period of the Plan is expected to be modest. Increased attention to stormwater management in site design is a necessary cost associated with achieving higher densities within the Urban Growth Boundary. Since the capacity to handle stormwater runoff once it reaches Johnson Creek is not unlimited, solutions closer to the new impervious surfaces must be implemented.

GOAL #11 PUBLIC FACILITIES AND SERVICES. Under Goal #11, provision and arrangement of public facilities should serve as a framework for urban and rural development. In the Johnson Creek Basin, two broad categories of facilities will be required. First, in-stream facilities will be required to improve the flow of runoff once it reaches the stream. Second, public and private facilities will be required to improve natural percolation and control the rate of stormwater runoff and thus reduce total and peak runoff flooding on Johnson Creek.

The Plan addresses the second type of facilities and are designed to ensure that development in the future includes the on site facilities that should have been incorporated all along. In-stream facilities cannot be intelligently planned until some measure of control over stormwater runoff is achieved at the source. Further, in-stream facilities will rapidly become obsolete if past inattention to the problem source is continued. The Plan is a first and essential step in achieving a comprehensive approach that will allow stormwater facilities to guide rather than be guided by development in the Johnson Creek Basin.

GOAL #12 TRANSPORTATION. The Plan will not affect the objectives expressed in Goal #12.

GOAL #13 ENERGY CONSERVATION. The Plan will not affect the objectives expressed in Goal #13.

GOAL #14 URBANIZATION. The Interim Guidelines are a first step approach to ensure that the goal of achieving efficient land use within the Urban Growth Boundary is not hampered by further inappropriate development. Stormwater runoff is a limiting factor that will affect the ultimate carrying capacity of urban lands in the Johnson Creek Basin. The Plan is designed to ensure that stormwater problems are not unnecessarily accelerated or intensified. By requiring that provision for stormwater impact be incorporated in new development site design, the goal of urban land use efficiency is met.

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ORDINANCE NO. 79-81

TITLE ADOPTING INTERIM JOHNSON CREEK
BASIN STORMWATER RUNOFF PLAN

DATE INTRODUCED 12/20/79

FIRST READING 12/20/79

SECOND READING 1/24/80

DATE ADOPTED 1/24/80

DATE EFFECTIVE 1/24/80

ROLLCALL

	Yes	No	Abst.
Burton	X		
Stuhr	X		
Williamson	X		
Berkman	X		
Kirkpatrick	X		
Deines	X		
Rhodes	X		
Schedeen	X		
Miller			
Banzer	X		
Peterson	X		
Kafoury	X		