

Spokane Municipal Codes relating to Wetland Buffer Zone Boundaries

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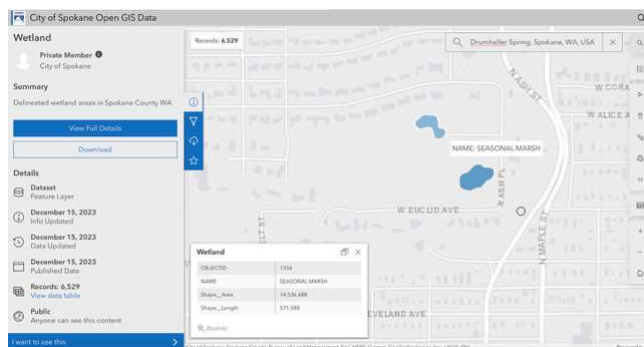
To:

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Hi [REDACTED] - The Spokane Municipal Codes and Washington State Department of Ecology rules favor us but I wonder if either entity has actually applied the rules to this project - seems like that would be part of their due diligence. I haven't heard from Zack about the buffer zone review yet - who do you recommend I send it to next? Thank you [REDACTED]

I have reviewed Spokane Municipal Codes relating to Wetland Buffer Zone Boundaries and these portions apply to developments adjacent to Drumheller Springs:

1. City of Spokane lists Drumheller Springs as an official wetland. <https://data-spokane.opendata.arcgis.com/datasets/wetland-1/explore?location=47.686607%2C-117.438505%2C16.93>. Drumheller Springs is also recognized by The Washington State Department of Ecology as a wetland.



2. Wetlands are rated according to the Washington State Department of Ecology wetland rating system found in the Washington State Wetlands Rating System for Eastern Washington. Wetlands have four rating levels. The Washington State Department of Ecology Wetlands Rating System establishes the rating criteria <https://my.spokanecity.org/smc/?Section=17E.070.100>

3. Wetland buffer zones are required for all regulated activities adjacent to wetlands.

4. Buffer zones size is determined by the wetland rating.

5. If Drumheller Springs has a wetland rating that is more than five years old it has expired one must be reviewed by a qualified wetland specialist. The wetland specialist performs wetland delineations using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands and Arid West Final Regional Supplement.

6. If Drumheller Springs does not have a rating it is the responsibility of the development applicant to pay for a wetland field investigation by a qualified professional wetland specialist.

7. The wetland specialist determines the exact location of the wetland boundary; an analysis of wetland functions and values; and a wetland rating according to the wetlands rating system criteria adopted in SMC 17E.070.100.

8. The Washington State Department of Ecology and City of Spokane must verify the accuracy of the wetland specialist's determination.

I have not found a wetland rating for Drumheller Springs. If a rating doesn't exist a wetland delineation is required. There are the four categories of wetlands Type I, II, III, and IV. The four categories are detailed at this link <https://my.spokanecity.org/smc/?Section=17E.070.100>

Wetland Category	Buffer Width
Type I	250 ft
Type II	200 ft
Type III	150 ft
Type IV	50 ft

Ideally Drumheller Springs would be rated as a Type I Wetland because Type I has the largest Buffer Zone...

Spokane Municipal Code Type I Wetlands include, but are not limited to, the following examples:

Alkali wetlands.

Represent a unique or rare wetland type.

Are more sensitive to disturbance than most wetlands.

Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; and

Provide a high level of function.

Wetlands of High Conservation Value (formerly called Natural Heritage Wetlands).
Bogs and Calcareous Fens.

Mature and old-growth forested wetlands over one-fourth acre with slow growing trees.

Wetlands that perform functions at high levels (scores of twenty-two points or more).

In Eastern Washington, Category I Wetlands include Alkali wetlands. Drumheller Springs may qualify as Type I based on several of the criteria including as an alkaline wetland. Alkaline wetlands are restricted to arid lands east of the Cascade Range. They include seasonally or intermittently flooded playas, marshes, and lakes, where alkaline soils and intense evaporation tend to concentrate salts in soils and water. They may support large populations of plants and animals found nowhere else in arid regions, and they are particularly well known as breeding or foraging sites for vast quantities of migrating birds. Many of the same species of plants and animals occur in both interior alkaline wetlands and estuarine wetlands along the coast, and the term "brackish marsh" has been applied to both. Playas or "salt flats" occur in basins with interior drainage that lack any exit streams. During years of high precipitation, runoff and meltwater accumulate in valley bottoms or depressions. Small to large, shallow lakes may form, or existing lakes may expand to flood areas around their edges. Playas are dependent on regional climatic cycles, and their flooding is by definition intermittent and often fleeting. Water may persist into the growing season for a few weeks, a month, or rarely years, and sites may not flood at all for years at a time. Playas are typified by flat topography, highly alkaline or saline soils, and no or scant vegetation that is distinctive and adapted to saline or alkaline conditions. Animals are adapted to the intermittent hydrology and may emerge only every few years.

If a Type I wetland is classified with at least one of the following special characteristics the following buffer table shall apply:

Table 17E.070.110-4		
Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use (apply most protective if more than one criterion is met)	Other Measures Recommended for Protection
Wetlands of High Conservation Value	Low - 125 ft Moderate - 190 ft High - 250 ft	No additional surface discharges to wetland or its tributaries No septic systems within 300 ft Restore degraded parts of buffer
Bogs	Low - 125 ft Moderate - 190 ft High - 250 ft	No additional surface discharges to wetland or its tributaries Restore degraded parts of buffer
Forested	Buffer size to be based on score for habitat functions or water quality functions	If forested wetland scores high for habitat, need to maintain connectivity to other natural areas Restore degraded parts of buffer
Alkali	Low - 100 ft Moderate - 150 ft High - 200 ft	No additional surface discharges to wetland or its tributaries Restore degraded parts of buffer
High level of function for habitat (score for habitat 8 - 9 points)	Low - 100 ft Moderate - 150 ft High - 200 ft	Maintain connections to other habitat areas Restore degraded parts of buffer
Moderate level of function for habitat (score for habitat 5 - 7 points)	Low - 75 ft Moderate - 110 ft High - 150 ft	No recommendations at this time
High level of function for water quality improvement (8 - 9 points) and low for habitat (less than 5 points)	Low - 50 ft Moderate - 75 ft High - 100 ft	No additional surface discharges of untreated runoff
Not meeting any of the above characteristics	Low - 50 ft Moderate - 75 ft High - 100 ft	No recommendations at this time

The complete Spokane Municipal Code Wetlands Rating System by Category Types I, II, III and IV is at <https://my.spokanecity.org/smc/?Section=17E.070.100>

These are excerpts from the Spokane Municipal Code which apply to wetlands and their buffer zones.

Title 17E Environmental Standards; Chapter 17E.070 Wetlands Protection; Section 17E.070.030 Identification, Designation, and Mapping of Wetlands...

B. Determination of Wetland Boundary.

1. The applicant shall, through the performance of a field investigation by a qualified professional wetland scientist applying the wetland definition provided in this chapter and in SMC 17A.020.230 and as part of the wetlands report requirement found in this chapter provide a site analysis including: a determination of the exact location of the wetland boundary; an analysis of wetland functions and values; and a wetland rating according to the wetlands rating system criteria adopted in SMC 17E.070.100. Qualified wetland scientists shall perform wetland delineations using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987), Arid West Final Regional Supplement (2008), as revised or supplemented. The Director, upon consultation with the Department of Ecology, may determine that wetland identification and delineations made prior to adoption of these standards, or for a different use requiring permit changes, require a new determination by a qualified wetland scientist. Wetland determinations are subject to Corps Regulatory Guidance Letter (RGL) 05-02, 2005 and expire after five years from the date of determination and must follow requirements for review by a qualified wetland scientist upon expiration of the five year limitation.

2. Where an applicant has provided a delineation of a wetland boundary, the department shall verify the accuracy of, and may render adjustments to, the boundary delineation. The applicant may be charged by the department for costs incurred in verifying the accuracy of the delineation. In the event the adjusted boundary delineation is contested by the applicant, the department may, at the applicant's expense, obtain the services of a second wetlands scientist to perform a delineation. The second delineation shall be final, unless appealed to the hearing examiner.

Section 17E.070.110 **Wetland Buffers**

A. Wetland buffer zones shall be required for all regulated activities adjacent to wetlands.

All buffers shall be measured from the wetland boundary as surveyed in the field pursuant to the requirements of SMC 17E.070.030. The width of the wetland buffer zone shall be determined according to the rating assigned to the wetland in accordance with SMC 17E.070.100 and consistent with Wetlands in Washington State, Volume 2, Protecting and Managing Wetlands, Guidance on Buffers and Ratios (Appendix 8-D) as revised, for wetland category, intensity of impacts, wetland functions, habitat scores, or special characteristics. Standard buffer widths will be determined based on an evaluation of the following:

1. conditions of the wetland;
2. conditions of the buffer;
3. proposed land uses adjacent to the buffer; and
4. the functions intended to be protected

B. Wildlife habitat function is the most susceptible to developmental change and requires the greatest buffer protection. Protection of wildlife habitat functions require twenty five to seventy five feet for wetlands with minimal habitat functions and low intensity land uses adjacent to the wetlands, fifty to two hundred feet for wetlands with moderate habitat function and moderate or high intensity land use adjacent to the wetlands, and one hundred fifty to two hundred fifty plus feet for wetlands with high habitat functions depending on the intensity of the adjacent land use.

There are two alternative methods to determining the width of the wetland buffer zone. Alternative one is based on the wetland already having a wetland rating.

Wetland Characteristics Alternative 1.

Unless SMC 17E.070.110(3) (Table 17E.070.110-4) applies, width based solely on wetland category as follows:

Wetland Category	Buffer Width
Type I	250 ft
Type II	200 ft
Type III	150 ft
Type IV	50 ft

2. Wetland Characteristics Alternative 2.

Alternative 2 provides three buffer widths based on habitat scores. Habitat score refers to the quality of physical structures such as vegetation, open water, and connections to other wildlife habitats that are necessary for a wide range of species, including birds, mammals, and amphibians. Where more than one width applies based on score for function or based on special characteristics, the calculation providing the widest buffer shall be used. Widths are based on wetland category, intensity of impacts from proposed changes in land use, and wetland functions or special characteristics. Land use intensity shall be determined as follows:

Impact from Proposed Change in Land Use	Types of Land Use Based on Common Zoning Designations
High	Commercial, Industrial and Institutional Residential (more than 1 unit/acre) High-intensity recreation (golf courses, ball fields, etc.) Conversion to high intensity agricultural (dairies, nurseries, greenhouses, etc.) Hobby Farms
Moderate	Residential (1 unit/acre or less) Moderate-intensity active open space (parks with biking, jogging, etc.) Conversion to moderate intensity agriculture (orchards, hay fields, etc.) Paved trails Building of logging roads Utility corridor with access/maintenance road Forestry (cutting of trees only)
Low	Passive open space (hiking, bird-watching, etc.) Unpaved trails Utility corridor without road or vegetation management.

Category of Wetland	Land Use with Low Impact	Land Use with Moderate Impact	Land Use with High Impact
I	125 ft.	190 ft.	250 ft.
II	100 ft.	150 ft.	200 ft.
III	75 ft.	110 ft.	150 ft.
IV	25 ft.	40 ft.	50 ft.

Increased Wetland Buffer Zone Width.

The City may require increased buffer zone widths on a case-by-case basis as determined by the director when a larger buffer is necessary to protect wetland functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the wetland. The documentation must include but not be limited to the following criteria:

1. The wetland is used by a plant or animal species listed by the federal government or the state as endangered, threatened, sensitive, or documented priority species or habitats, or essential or outstanding potential habitat for those species, or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or
2. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts; or
3. The adjacent land has minimal vegetative cover or slopes greater than thirty percent.

Reduction of Standard Wetland Buffer Zone Width.

The City may reduce the standard wetland buffer zone width on a case-by-case basis as determined by the director, consistent with Wetlands in Washington State, Volume 2, Protecting and Managing Wetlands, Guidance on Buffers and Ratios (Appendix 8-D) as revised, or wetlands that score:

The width of the buffer can be reduced if the following criteria are met:

- a. A relatively undisturbed vegetative corridor of at least one hundred feet in width is protected between the wetland and any other priority habitats; and
- b. The protected area is preserved by means of easement, covenant, or other measure;
- c. Measures identified in SMC 17E.070.110(C)(2) (Table 17E.070.110-5) are taken to minimize the impact of any proposed land use or activity

The buffer width can be reduced to that required for moderate land-use impacts by applying the following measures to minimize the impacts of the proposed land uses or activities:

Disturbance	Examples of Measures used to Minimize Impacts
Light	Direct lights away from wetland
Noise	Locate activity that generates noise away from wetland
Toxic runoff	Route all new untreated runoff away from wetland while ensuring wetland is not dewatered, establish covenants limiting use of pesticides within 150', may apply integrated pest management
Stormwater runoff	Retrofit stormwater detention and treatment for roads and existing adjacent development, prevent channelized flow from lawns that directly enters buffer
Change in water regime	Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
Pets and human disturbance	Use privacy fencing; plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion; place wetland and its buffer in a separate tract
Dust	Use best management practices to control dust

How do we proceed?

Contact the WA Department of Ecology and the City of Spokane regarding Drumheller Springs wetlands rating.

If Drumheller doesn't have a rating, or the rating is more than five years old, we request that the Washington State Department of Ecology and City of Spokane (Planning Department?) require the developer hire a wetland specialist.

The increase of noise and light generated by the developments, and return of migrating water fowl, might be a positive factor against the size of the developments.