

Stream Buffer Plan Review Checklist – Chapter 88-415 Code of Ordinances

1. Determine whether or not the project/development requires a stream buffer.

- ☐ Based on the “Regulated Streams” layer on the City Parcel Viewer.
- ☐ Represented by a light blue line on the parcel viewer. (Kansas City Natural Resources Map)
- ☐ Also verify Applicability per 88-415-02-D. If an exception is not met, proceed to require a stream buffer.
- ☐ If the limits of any stream buffer zone encroaches on the property in question, a stream buffer should be required.
- ☐ For DRC cases, add the applicable related conditions for the stream buffer from the standard conditions template.

2. Buffer Zones (88-415-03) and Allowed Uses (88-415-05) – Verify Limits of each zone and allowed uses

- Streamside Zone
 - Extends 25 feet landward in both directions from the edge of the stream.
 - Delineate and dimension the streamside zone.
- Middle Zone
 - Extends landward from the outer edge of the streamside zone to encompass the limits of the 100-year floodplain/100 year conveyance.
 - If there is no floodplain the middle zone width is zero.
 - Delineate the limits of the middle zone.
- Outer Zone
 - Extends a minimum of 75 feet landward from the outer edge of the middle zone. Where the middle zone width is zero, extends from the outer edge of the streamside zone.
 - When slopes greater than 15% or mature riparian vegetation are present and contiguous with the middle zone boundary, the outer zone limits are expanded to encompass the areas.
 - If 100% of the outer zone area is protected as open space the outer zone will be 150 feet.
 - If portions of the outer zone are to be disturbed, maximum extent of outer zone will be 250 feet.
 - Delineate the extents of the steep slopes (>15%) and mature riparian vegetation from field survey on the plan.
 - Delineate the limits of the outer zone.
 - Delineate the first 25' of outer zone as no build area (88-415-C-2-C).
 - No more than 40% of the outer zone area may be disturbed without mitigation.
 - No more than 50% of the outer zone area may be disturbed where mitigation is provided per 88-415-07-C.

3. Prohibited Uses

- ☐ Any activity or use not listed in 88-415-05 that is not identified as being allowed within the various stream buffer zones is prohibited.
- ☐ Streams regulated by 88-415 may not be enclosed, relocated, dammed, or inundated unless all necessary city, state, and federal approval are first obtained.

4. Mitigation (88-415-07-C & 88-415-08-B-4)

- Property owners who elect to establish the maximum outer zone width in accordance with 88-415-03-C.2 may exceed the 40% disturbance limit established in 88-415-05-C.2 by an additional 10%, up to 50%. This additional disturbance is allowed if offset by mitigation.
- Federal mitigation credits including compensatory mitigation shall be in accordance with a U.S. Army Corps of Engineers Permit under Section 404 of the Clean Water Act (33 USC 1344) and implementing regulations (33 CFR 320-332) and mitigation banks shall be located in the Missouri River Basin within the greater Kansas City area.
- Mitigation areas must be equal or greater than the additional disturbed land area. The mitigation areas shall be added to the outer zone.
- Mitigation areas become part of the property's permanent open space and must be:
 - Contiguous to the original outer zone.
 - Permanently stabilized where slopes greater than 15% are present.
 - Revegetated in accordance with 88-415-07-A.
 - Established and maintained in accordance with provisions of this article and 88-410.
 - Designed, established, and maintained in accordance with city, state, and federal laws and regulations.
 - Completed during the development phase in which the disturbance occurs.
 - Additional mitigation requirements in 88-415-08-B-4.
- Mitigation Rates (88-415-08-B-4) Disturbed natural resources must also be mitigated in conjunction with 88-415-07-C. Any additional mitigation beyond that allowed in 88-415-07-C must comply with the following criteria. Federal mitigation credits, revegetation or restoration of any portion of the original disturbance counts toward the required mitigation.
 - Mitigation of outer zone vegetation that is contiguous to the remaining outer zone vegetation must be provided at a ratio of 1.5 units of mitigation area to 1 unit of existing outer zone area.
 - Mitigation of outer zone vegetation that is not contiguous to the remaining outer zone vegetation but is along the same stream reach must be provided at a ratio of 2 to 1.
 - Mitigation of outer zone vegetation that is not located along the same stream reach, but is provided within the same watershed, must be provided at a ratio of 2.5 to 1.
 - Mitigation of outer zone vegetation that is not located in the same watershed must be provided at a ratio of 3 to 1.
 - In all cases, a continuous outer zone vegetation connection of at least 25 feet must be maintained to avoid fragmenting the vegetated area.
 - Encroachment into the middle or streamside zones or alteration of the stream channel must be mitigated at a ratio of 4 to 1.
 - The water services director may approve mitigation at city-designated locations in lieu of locations owned or controlled by the applicant.

5. Administration and Procedures (88-415-08-B)

- Exceptions to the stream buffer standards must be reviewed and recommendations provided by the Water Services Director to City Council who may approve exceptions.

6. Buffer Plans (88-415-07-D)

- Preliminary Stream Buffer Plan – Reviewed by KC Water with DRC/CPC cases
 - A preliminary buffer plan must be submitted for review along with preliminary plats and site or development plans.

- Scale no smaller than 1" = 100'
- Existing topography with at least 2-foot contour intervals
- Approximate stream locations based on approved city geographic information system mapping or city-approved mapping from state and federal agencies
- Approximate boundary of the FEMA- or city-designated floodplain based on city-approved geographic information system mapping or federal mapping
- Approximate 1% flood conveyance limits where no regulatory floodplain is identified as determined by a qualified engineer using city-approved methods;
- Approximate wetland locations from the Mid-America Regional Council Natural Resource Inventory, or the U.S. Fish and Wildlife Service National Wetlands Inventory
- Approximate boundary of existing, mature riparian vegetation based on a field survey
- Slopes of 15% or greater in each sub-drainage area based on city-approved geographic information system mapping or a site topographic survey
- The location of proposed structures or activities
- Identification of required stream buffer zones based on city-approved geographic information system mapping or a site topographic survey and a survey of mature riparian vegetation
- The total acreage of mature riparian vegetation and steep slopes in the outer zone
- The location and total acreage of proposed clearing and grading in the outer zone and the percentage of proposed outer zone area to be cleared (if applicable in accordance with 88-415-03-C)
- The limits and total acreage of proposed mitigation of outer zone vegetation, and the percentage of outer zone area to be mitigated (if applicable in accordance with 88-415-07-C)
- Final Stream Buffer Plan – Reviewed by KC Water for permitting – (Final stream buffer plan should include the following in addition to the requirements for the preliminary stream buffer plan above)
 - The final buffer plan must be submitted for review with final plats and site or development plans.
 - Scale not smaller than 1" = 100' showing at a minimum
 - Existing topography with at least 2-foot contour intervals
 - Field delineated, marked, and surveyed streams and wetlands
 - Field delineated, marked, and surveyed mature riparian vegetation limits as described in 88-415-07-D.4
 - Existing sub-drainage areas of the site
 - Slopes of 15% or greater in each sub-drainage area based on a site topographic survey
 - The location of proposed structures or activities
 - The location of field delineated and surveyed stream buffer zones
 - The total acreage of mature riparian vegetation and steep slopes in the outer zone
 - The location and total acreage of proposed clearing and grading in the outer zone, and the percentage of proposed outer zone area to be cleared (if applicable in accordance with 88-415-03-C88-415-03-C)
 - The location of the boundary marker signs and construction fence

- Boundary markers must be put in place clearly marking required stream buffers before, during, and after construction
- Boundary markers must be installed at the intersection of private lot lines with the outer edge of the permanent open space before receiving final city approval of plans for clearing, grading, or sediment and erosion control
- Construction fencing must be placed at the outer edge of the permanent open space in the outer zone to delineate the buffer. This fencing must be maintained throughout the construction process
- Permanent signs must be placed at the edge of the permanent open space after construction to denote the buffer as follows:
 - For single-lot developments, signs must be posted every 100 feet along the boundary of the permanent open space
 - For multiple lots located along a buffer, signs must be located at the intersection of every other lot line along the boundary of the permanent open space
- Required signs must read: "Protected Stream Buffer - Do Not Disturb (City Code Section 88-415)," with the sign message located approximately 4 feet above the ground. Signs must be maintained and remain legible at all times

7. Title Sheet – Plan Presentation Criteria

- ☐ Plat Name or Project Name (if platting is not required)
- ☐ Plat Number & Case Number or Project Number (if platting is not required)
- ☐ City, County, State
- ☐ Section, Township, Range
- ☐ Consultant Name, address, phone number, and email address
- ☐ Certification Block with Engineer's signature/seal
- ☐ Developer, address, phone number, and email address
- ☐ Index of sheets
- ☐ Legal Description
- ☐ Location Map
- ☐ "For Construction" designation on title sheet
- ☐ Area for KC Water reviewer to apply approval stamp
- ☐ Summary of Quantities that matches Engineer's Estimate
- ☐ Items for Stream Buffer Summary of Quantities – Construction Fencing, Stream Buffer Signs, and Preparation of As-Built Drawings