

Riparian Protection Area

A SECTION OF THE PROPOSED SENSITIVE LANDS EVALUATION AND
DEVELOPMENT STANDARDS (SLEDS) ORDINANCE

Background

What is a riparian protection area?

A riparian protection area institutes standards for what is allowed along waterways and their adjacent ground, also known as “riparian areas.”

What can these standards do?

- Protect **water quality** from pollutants
- Minimize **flood hazards** to structures
- Preserve **habitat and aesthetic values** of waterways
- Stabilize banks and **reduce erosion**
- Allow for **groundwater recharge**

Background

- Riparian protection standards are already included by reference in the existing Sensitive Lands Evaluation and Development (SLEDS) ordinance.
- However, the chapter that is supposed to contain these standards does not exist.
- This discrepancy is being addressed as part of the overall SLEDS update, by including a Riparian Protection Area section within the updated SLEDS ordinance.

Existing SLEDS ordinance states that riparian standards are included in *Appendix I*



Appendix I states that the riparian standards are included in *Chapter 17.31*



Chapter 17.31 does not exist in City Code.

Approach

Standard Practices for
Riparian
Management from
other Western
Ordinances



Best Management
Practices (BMPs) from
Regulatory Agency
Partners and Experts



Cottonwood Heights'
Approach to Other
Sensitive Lands
Hazards

Draft Riparian Protection Area Ordinance

Main Concept

- As is standard practice in riparian management, our draft utilizes a “buffer area system” which breaks the land adjacent to a waterway into several buffer areas that regulate what is allowed within them.
- The area closest to the waterway being the most regulated, as it is the most sensitive.
- This concept focuses on guiding new development to be harmonious with sensitive waterway areas, in consistency with other sensitive lands hazards and procedures.

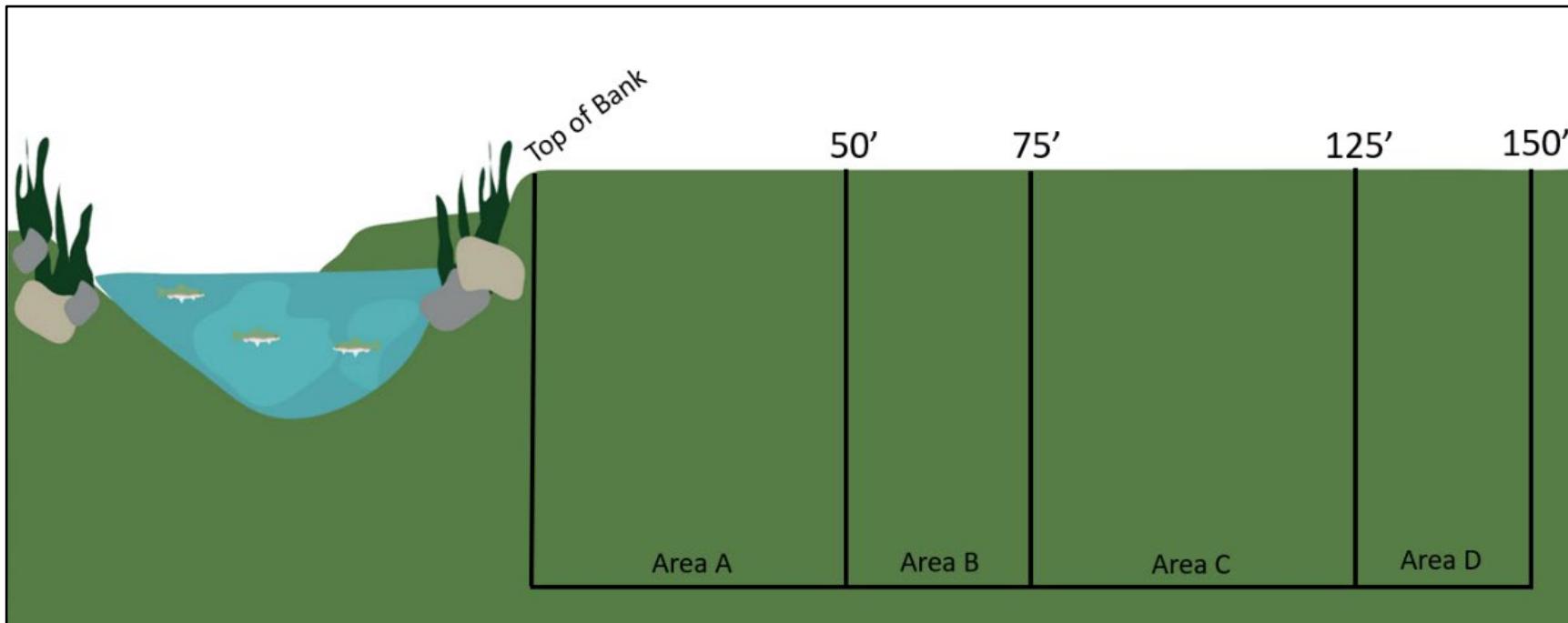


Buffer Area Measurements

- Following introduction of the buffer area system to the Planning Commission, the Commission requested that staff widen the buffer area to include more property within its protection.
- Staff analysis found that properties in zones which require larger lot sizes could accommodate a widened buffer area, but properties in zones which allow smaller lot sizes could not.
- As such, staff updated the ordinance to include two different buffer area groups, divided by zoning classification.
- This approach is similar to the existing requirement for more substantial building setbacks on properties in larger lot zones.
- **Group 1 – Larger Lot Size Zones – Wider Buffer Area**
 - F-20, F-1-43, F-1-21, RR-1-43, RR-1-29, RR-1-21, and CR Zones
- **Group 2 – Smaller Lot Size Zones – Narrower Buffer Area**
 - R-1-15, R-1-10, R-1-8, R-1-6, R-2-8, RM, RO, Mu, NC, PF, and O-RD Zones

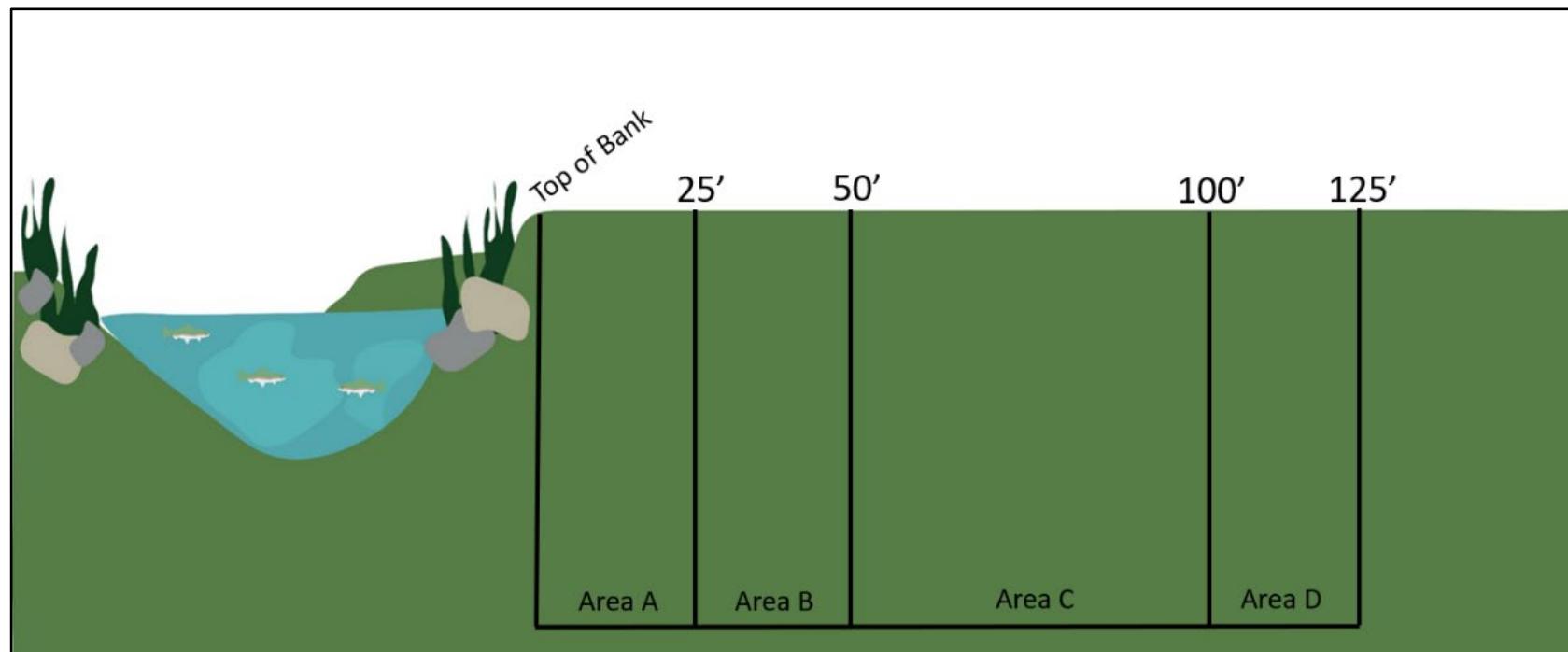
Group 1 – Larger Lot Size Zones

- F-20, F-1-43, F-1-21, RR-1-43, RR-1-29, RR-1-21, and CR Zones
- Riparian Protection Area = 150 feet from the top of bank, split into four buffer areas



Group 2 – Smaller Lot Size Zones

- R-1-15, R-1-10, R-1-8, R-1-6, R-2-8, RM, RO, Mu, NC, PF, and O-RD Zones
- Riparian Protection Area = 125 feet from the top of bank, split into four buffer areas



Summary

	Group 1 Larger Lot Size Zones	Group 2 Smaller Lot Size Zones
Area A	Less than 50 feet	Less than 25 feet
Area B	50 feet to less than 75 feet	25 feet to less than 50 feet
Area C	75 feet to less than 125 feet	50 feet to less than 100 feet
Area D	125 feet to less than 150 feet	100 feet to less than 125 feet

Table of Uses

- The draft ordinance includes a table of uses, which works in tandem with the buffer areas by outlining what is allowed within each of them.
- Activities or uses listed in the table of uses are indicated by one of the following classifications:
 - **Allowed (A)** – An activity or use is allowed, without extra regulatory processes
 - **Analysis Required (AR)** – An activity or use may be allowed if approved by the Development Review Committee (DRC) following analysis
 - **Not Allowed (N)** – An activity or use is prohibited

Table of Use Scenarios

- ***Can I build a new home in the Riparian Protection Area?***

- Yes, within Area C and Area D. 2,000 sq. ft. of a new home's footprint can be built in Area C. Any additional square footage must be located in Area D or beyond the Riparian Protection Area.

- ***Can I maintain an existing use or structure that legally exists today?***

- Yes. This is allowed in all four buffer areas without any extra process.

- ***Can I expand an existing home that would be considered nonconforming to the Riparian Protection Area?***

- Yes. Nonconforming structures can be added on to via the “Expansion of a Nonconforming Structure” process outlined in city code, if the addition doesn’t go closer to the waterway than the existing home already is, if the addition wouldn’t require additional bank armoring, and if the existing home doesn’t have a history of flooding.

Table of Use Scenarios (Cont.)

- **Can I spray herbicide, pesticide, fertilizer, or other toxic substances in my yard?**

- Yes, within Area B, Area C, and Area D. These substances are extremely harmful to water quality, so they cannot be sprayed in Area A (closest to the waterway), unless they're related to tree health in this area and applied by a professional.

- **Can I prune my trees?**

- Yes. This is allowed in all four buffer areas, with the note that the use of heavy equipment should be minimized in Area A whenever possible.

- **Can I plant new trees or plants?**

- Yes. This is allowed in all four buffer areas, with the note that new plants and trees must not be included on Salt Lake County's Invasive Species List.

- **Can I remove trees, plants, or other debris and trash?**

- Yes. This is allowed in all four buffer areas, with the note that Area A must maintain at least 50% landscape coverage, and trees can only be removed if they are unintended tree starts or hazardous. Hazardous trees that are removed must be replaced. If someone wishes to remove wood debris from the waterway, we recommend consulting with an expert beforehand.

Table of Use Scenarios (Cont.)

- **Can I install a new flood control or erosion control device?**

- Yes, following the “Analysis Required” process which allows the Development Review Committee (DRC) to review the proposed device to ensure it is appropriately designed and compatible with the riparian protection area.

NOTE: This ordinance **DOES NOT** regulate functions conducted by regulatory agencies as part of their necessary operations, and it does not apply to emergency response measures.

Planning Commission

- The Planning Commission voted to forward a recommendation of approval for the Riparian Protection Area Standards during its August 3, 2022 meeting. This occurred as part of the broader Planning Commission vote to forward a positive recommendation on the overall SLEDS update.
- Following this meeting, several clarifying and formatting edits were made, in consistency with the Planning Commission's discussion surrounding their positive recommendation.
- These edits were tracked in red in the PDF version of the ordinance provided to the City Council.

Riparian Protection Area

A SECTION OF THE PROPOSED SENSITIVE LANDS EVALUATION AND
DEVELOPMENT STANDARDS (SLEDS) ORDINANCE

19.72.50 Riparian Protection Area

A. Purpose

The purpose of the Riparian Protection Area is to protect and enhance riparian areas within Cottonwood Heights to promote the public health, safety, and welfare. This chapter recognizes these waterways and their adjacent terrestrial ecosystems as local and regional assets in terms of natural function, aesthetic value, recreation, and cultural importance. This chapter aims to enact the following goals:

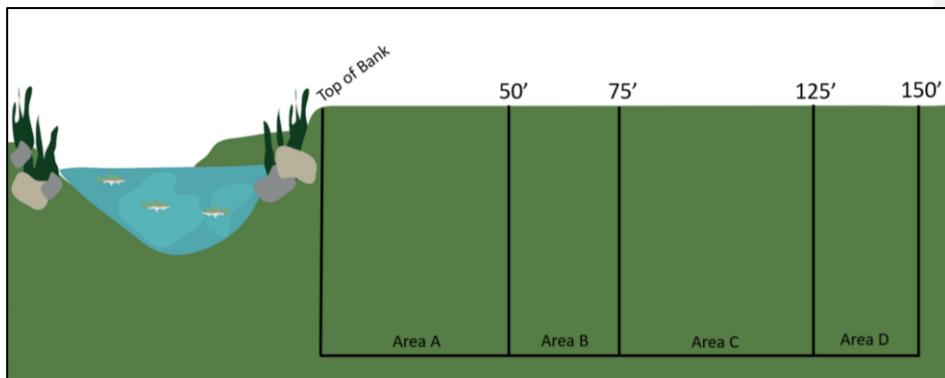
1. Ensure the continuation of natural functions and habitat provided by riparian areas;
2. Guide development in a way that enhances the riparian corridor;
3. Improve water quality;
4. Minimize ~~flood~~_{natural} hazards; and
5. Protect aesthetic and recreational values associated with riparian corridors.

B. Applicability

1. The requirements of this ordinance shall apply to property within the Riparian Protection Area, as defined below, in addition to the requirements of any other applicable ordinance. Should the regulations imposed by this chapter conflict with those of another applicable ordinance or regulatory agency, the most restrictive regulation shall apply.
2. This ordinance does not apply to functions by regulatory agencies which are conducted as part of their necessary operations, nor does it apply to emergency response measures as defined in this ordinance, provided that the least invasive methods feasible are used in both circumstances.
3. A map with the estimated boundary of the Riparian Protection Area is available within the Community and Economic Development Department. The precise boundaries of those lands and waters shall be determined on a case-by-case basis, as determined necessary by the Development Review Committee (DRC). The burden of this analysis shall fall on the developing or acting party. This analysis shall be prepared by a licensed professional hydraulic engineer, hydrologist, wetlands scientist, fluvial geomorphologist, licensed surveyor, or other equivalent qualified environmental science professional. All determinations of qualification are subject to the approval of the Development Review Committee (DRC).
4. Within the F-20, F-1-43, F-1-21, RR-1-43, RR-1-29, RR-1-21 zones, and CR zones, the Riparian Protection Area is defined as all areas within 150 feet of the tops of bank of streams, creeks, and other above-ground watercourses. This 150-foot range is split into four zones, each described and regulated within this ordinance.

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- | **Area A:** Less than 50 feet;
- | **Area B:** 50 feet to less than 75 feet;
- | **Area C:** 75 feet to less than 125 feet; and
- | **Area D:** 125 feet to less than 150 feet.



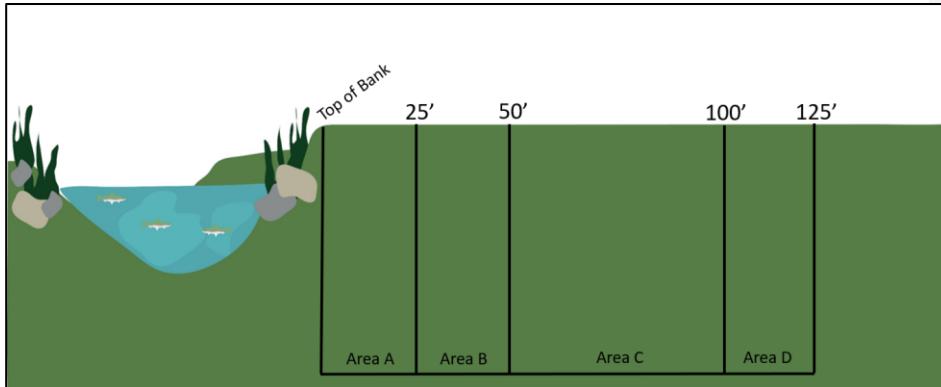
5. Within all other zones, the Riparian Protection Area is defined as all areas within 125 feet of the tops of bank of streams, creeks, and other above-ground watercourses. This 125-foot range is split into four zones, each described and regulated within this ordinance.

- | **Area A:** Less than 25 feet;
- | **Area B:** 25 feet to less than 50 feet;
- | **Area C:** 50 feet to less than 100 feet; and

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Area D: 100 feet to less than 125 feet.



	<u>F-20, F-1-43, F-1-21, RR-1-43, RR-1-29, RR-1-21, and CR</u>	<u>All Other Zones</u>
<u>Area A</u>	<u>Less than 50 feet</u>	<u>Less than 25 feet</u>
<u>Area B</u>	<u>50 feet to less than 75 feet</u>	<u>25 feet to less than 50 feet</u>
<u>Area C</u>	<u>75 feet to less than 125 feet</u>	<u>50 feet to less than 100 feet</u>
<u>Area D</u>	<u>125 feet to less than 150 feet</u>	<u>100 feet to less than 125 feet</u>

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The requirements of this ordinance shall apply to those properties within the Riparian Protection Area, in addition to the requirements of the underlying zone and any additional overlay zones. Should regulations imposed by this chapter conflict with those of another applicable ordinance or multi jurisdictional requirement, the most restrictive regulation shall apply.

C. Additional Regulatory Agencies Approval by Regulatory Agencies

The requirements instituted within this chapter may necessitate additional permits or processes involving federal, state, or other local regulatory agencies, including, but not limited to floodplain development permits. Any burden of cost or time associated with these processes shall be borne by the applicant. Cottonwood Heights does not assume authority over the requirements and processes of separate regulatory agencies but may require confirmation that their regulations are observed in full as part of the city's own process.

Activities within the Riparian Protection Area may require additional approval from federal, state, or other local regulatory agencies, including, but not limited to floodplain development permits. It shall be the responsibility of the applicant to coordinate with these entities to determine what, if any,

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approval is required. Any burden of cost or time associated with these processes shall be borne by the applicant.

D. Buffer Areas Table of Uses

1. All modification to property within the Riparian Protection Area is subject to the development standards of this chapter. Development in the Riparian Protection Area is regulated by four buffer areas, measured from the tops of bank on both sides of the waterway.

A map with the estimated boundary of the Riparian Protection Area is available within the Community and Economic Development Department. The precise boundaries of those lands and waters shall be determined on a case by case basis. Should verification of the boundaries of this area be deemed necessary by the Development Review Committee (DRC), the burden of this analysis shall fall on the developing or acting party. This analysis shall be prepared by a licensed professional hydraulic engineer, hydrologist, wetlands scientist, fluvial geomorphologist, licensed surveyor, or other equivalent qualified environmental science professional. All determinations of qualification are subject to the approval of the Development Review Committee (DRC).

	F-20, F-1-43, F-1-21, RR-1-43, RR-1-29, RR-1-21, and CR	All Other Zones
Area-A	Less than 50 feet	Less than 25 feet
Area-B	50 feet to less than 75 feet	25 feet to less than 50 feet
Area-C	75 feet to less than 125 feet	50 feet to less than 100 feet
Area-D	125 feet to less than 150 feet	100 feet to less than 125 feet

2. 1. Within each buffer area, activities may be allowed, require analysis, or not be allowed.

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Allowed (A): Activities denoted with an “A” are allowed within a respective buffer area. These activities may be subject to chapter footnotes, as well as other relevant standards, but do not require additional analysis for approval.

Analysis Required (AR): Activities denoted with an “AR” require further analysis for approval, conditional approval, or denial within a respective buffer area. By initiating the analysis process described in this chapter, the applicant agrees that information required for analysis shall be provided at the cost of the applicant, and that additional information may be required by the city prior to determination of decision.

Not Allowed (N): Activities denoted with an “N” are not allowed within a respective buffer area.

Riparian Protection Area Table of Uses

A = Allowed, AR = Analysis Required, N = Not Allowed, NA = Not Applicable

<u>Use</u>	<u>Area A</u>	<u>Area B</u>	<u>Area C</u>	<u>Area D</u>
<u>Maintenance of any use or structure lawfully established prior to adoption of this ordinance</u>	A	A	A	A
<u>Expansion or replacement of legal nonconforming structure</u>	A *See 3.a, 3.d, and 3.e	A *See 3.a	A *See 3.a	A *See 3.a
<u>New primary structure</u>	N	N	A *See 3.b	A *See 3.b
<u>New impermeable accessory structure, deck, patio, or sport court; swimming pool; or driveway</u>	N	A *See 3.c	A *See 3.b	A *See 3.b
<u>Permeable accessory structure, deck,</u>	A *See 3.d and 3.e	A	A	A

<u>patio, or sport court</u>				
<u>New access stairs, landscape walls, and paths</u>	AR <u>*See 3.d and 3.e</u>	A	A	A
<u>Livestock habitats, pens, or other enclosures</u>	N	A <u>*See 3.c</u>	A <u>*See 3.b</u>	A <u>*See 3.b</u>
<u>Any activity not constituting development or a ground disturbing activity except as otherwise set forth by this table</u>	A <u>*See 3.d and 3.e</u>	A	A	A

A = Allowed, AR = Analysis Required, N = Not Allowed, NA = Not Applicable

<u>Use</u>	<u>Area A</u>	<u>Area B</u>	<u>Area C</u>	<u>Area D</u>
<u>Ground disturbing activity, such as the topographic regrading of land, not including minimal grading</u>	AR <u>*See 3.d and 3.e</u>	A	A	A
<u>Use of herbicide, pesticide, fertilizer, or other toxic substances, except for those related to tree health which are applied professionally</u>	N	A <u>*See 3.f</u>	A <u>*See 3.f</u>	A <u>*See 3.f</u>
<u>Installation of trees or plants</u>	A <u>*See 3.e and 3.g</u>	A	A	A
<u>Maintenance tree pruning</u>	A <u>*See 3.e</u>	A	A	A
<u>Removal of trees, plants, course</u>	A <u>*See 3.d, 3.e, 3.h, and 3.i</u>	A <u>*See 3.h and 3.i</u>	A <u>*See 3.h and 3.i</u>	A <u>*See 3.h and 3.i</u>

<u>woody debris, or trash.</u>				
<u>Fencing</u>	A <i>*See 3.e and 3.j</i>	A	A	A
<u>Composting areas</u>	N	N	A	A
<u>Low impact stream crossing</u>	AR <i>*See 3.d and 3.e</i>	NA	NA	NA
<u>Installation of new flood control devices</u>	AR <i>*See 3.d and 3.e</i>	AR	A	A
<u>Installation of new erosion control devices</u>	AR <i>*See 3.d and 3.e</i>	AR	A	A
<u>Trail</u>	AR <i>*See 3.d and 3.e</i>	A	A	A
<u>Parking Lot</u>	N	N	A	A

3. Table of Uses Footnotes

- a. A structure that is legally nonconforming to the Riparian Protection Area standards contained in this chapter may be expanded upon or replaced following the process outlined in 19.88.070, "Additions, Enlargements, Moving And Reconstruction of Building." In addition to the requirements of section 19.88.070, expansions or replacements of legal nonconforming structures in the Riparian Protection Area may only be authorized by the Appeals Hearing Officer, provided that the appeals hearing officer, after the hearing, shall also find:
 - i. No portion of the new structure's footprint shall be any nearer to the top of bank than the nearest point of the preexisting structure was to the top of bank;
 - ii. The new structure does not require further armoring of the stream bank; and
 - iii. The existing structure does not have a history of flooding.
- b. A maximum combined footprint of 2,000 sq. ft. is allowed for all structures in Area C. Any additional square footage must be located in Area D.
- c. Accessory structures or livestock habitats located in Area B must be less than or equal to 200 sq. ft. in footprint and not be habitable for human occupancy.
- d. Area A must be covered with a minimum of 50% landscaping, except in the case of a trail.
- e. The use of heavy equipment in Area A should be minimized whenever possible.
- f. Best practices for the use of herbicides, pesticides, and fertilizer are as identified by the Development Review Committee, in accordance with applicable state and federal regulations.

- g. New plants and trees must be non-invasive, as defined by Salt Lake County's Invasive Species List.
- h. With the exception of unintended tree starts, trees which are removed must be hazardous. Any hazardous tree that is removed must be replaced with trees planted in the same vicinity, in accordance with the following standards:
 - i. For trees six inches in caliper or less: 1:1
 - ii. For trees six-eight inches in caliper: 2:1
 - iii. For trees eight inches in caliper or greater: 3:1
 - iv. Any replacement tree which does not survive for at least one year shall be replaced again
 - v. Replacement trees shall be an approved species and size, as determined by the Development Review Committee.
- i. In determining whether to remove coarse woody debris from a riparian area, property owners should consider its benefits to habitat, soil production, and riparian health, as well as consult with riparian experts on the potential for property damage should coarse woody debris be mobilized during a flood event.
- j. Fencing shall not cross waterways or impede water movement. Fencing within Area A shall not include spikes, barbs, or elements which are determined to be hazardous based on best practices for habitat fencing.

A = Allowed, AR = Analysis Required, N = Not Allowed, NA = Not Applicable

Use	Area-A	Area-B	Area-C	Area-D
Maintenance of any use or structure lawfully established prior to adoption of this ordinance	A *See 3.h	A	A	A
Expansion or replacement of existing structure	AR *See 3.j and 3.k	AR *See 3.j	AR *See 3.j	AR *See 3.j
Any action not constituting development or a ground disturbing activity except as otherwise set forth by this table	A *See 3.h and 3.k	A	A	A
Maintenance of existing lawn and garden areas without the use of herbicide,	A *See 3.h and 3.k	A	A	A

pesticide, fertilizer or other potentially toxic substances.				
Herbicide, pesticide, and fertilizer application in accordance with best management practices	N	A *See 3.a	A *See 3.a	A *See 3.a
Planting noninvasive vegetation	A *See 3.b, 3.h & 3.k	A *See 3.b	A *See 3.b	A *See 3.b
Maintenance tree pruning	A *See 3.h and 3.k	A	A	A
Minor ground disturbing activity or minimal grading	AR *See 3.b, 3.h & 3.k	A	A	A
Use	Area A	Area B	Area C	Area D
Removal of trash, diseased or dead trees	A *See 3.c, 3.d, 3.h & 3.k	A *See 3.c & 3.d	A *See 3.c & 3.d	A *See 3.c & 3.d
Invasive plant removal	A *See 3.b, 3.h & 3.k	A *See 3.b	A *See 3.b	A *See 3.b
Activities approved by the U.S. army corps of engineers, FEMA, or state engineer	AR *See 3.e, 3.h & 3.k	AR *See 3.e	AR *See 3.e	AR *See 3.e
Open fence, new	A *See 3.f, 3.h & 3.k	A	A	A
Open patio/deck	A *See 3.g, 3.h & 3.k	A	A	A
Compost from yard debris	N	N	A	A
Public utilities work	AR *See 3.k	AR	A	A

Construction of access stairs, landscape walls, and paths	AR *See 3.k	A	A	A
New accessory structure, swimming pool, sport court, or driveway	N	A *See 3.l	A	A
New primary structure	N	N	A *See 3.m	A
Low impact stream crossing	AR *See 3.k	NA	NA	NA
Installation of new and maintenance of existing irrigation and flood control devices	AR *See 3.k	AR	A	A
Installation of new and maintenance of existing erosion control devices	AR *See 3.i & 3.k	AR	A	A
Livestock habitats, pens, or other enclosures	N	A	A	A
Trail	AR *See 3.k	A	A	A
Parking Lot	N	N	A	A

3. Table of Uses Footnotes

- a. Best practices for the use of herbicides, pesticides, and fertilizer are as identified by the Development Review Committee, in accordance with applicable state and federal regulations.
- b. Invasive species are those defined by Salt Lake County Health Department's Noxious Weed List.
- c. To be removed, trees must be confirmed as dead or diseased by a licensed arborist. Removal of items within Area A shall be manual only, with no mechanization. Any confirmed dead or diseased tree that is removed must be replaced with trees planted in the same vicinity, in accordance with the following standards:
 - i. For trees six inches in caliper or less: 1:1
 - ii. For trees six-eight inches in caliper: 2:1
 - iii. For trees eight inches in caliper or greater: 3:1

- iv. Any replacement tree which does not survive for at least one year shall be replaced again
 - v. Replacement trees shall be an approved species and size, as determined by the Development Review Committee.
- d. In determining whether to remove coarse woody debris from a riparian area, property owners should consider its benefits to habitat, soil production, and riparian health, as well as consult with riparian experts on the potential for property damage should coarse woody debris be mobilized during a flood event.
- e. Construction activities may be approved by the U.S. army corps of engineers under the federal clean water act or the river and harbors act, FEMA requirements by the local floodplain administrator, or by the Utah state engineer. If requirements from these agencies are in conflict with those provided locally, the most restrictive requirement shall apply.
- f. Fencing shall not cross waterways or impede water movement. Fencing within Area A shall not include spikes, barbs, or elements which are determined to be hazardous based on best practices for habitat fencing.
- g. Construction of open patios or decks which are less than 18" from existing grade
- h. Heavy equipment may not be used during construction or installation processes.
- i. Any armoring is necessary to protect the structural integrity of an existing structure or significant land area due to erosion.
 - i. The landowner has reasonably exhausted less intrusive methods to prevent significant land damage
 - ii. The armoring is placed only where necessary to prevent significant land damage in the foreseeable future
 - iii. The proposed armoring will not negatively impact other adjacent or downstream land, as determined by a qualified expert, per the qualifications described in Subsection B.
- j. The definitions of "noncomplying building" and "nonconforming use" shall be as provided in UTAH CODE ANN. §10-9a-103, as amended. An existing structure that is legally nonconforming to the Riparian Protection Area standards contained in this chapter may be expanded upon or replaced following the process outlined in 19.88.070, "Additions, Enlargements, Moving And Reconstruction of Building." In addition to the requirements of section 19.88.070, expansions or replacements of legal nonconforming structures in the Riparian Protection Area may only be authorized by the Appeals Hearing Officer, provided that the appeals hearing officer, after the hearing, shall also find:
 - i. No portion of the new structure's footprint shall be any nearer to the top of bank than the nearest point of the preexisting structure was to the top of bank; and
 - ii. The new structure does not require further armoring of the stream bank; and
 - iii. The existing structure does not have a history of flooding.
- k. Area A must be covered with a minimum of 50% landscaping.

l. Accessory structures located in Area B must be less than or equal to 200 sq. ft. in footprint, and not be habitable for human occupancy.

m. A maximum combined footprint of 2,000 sq. ft. is allowed for all structures in Area C. Any additional square footage must be located in Area D.

E. Additional Approval Processes

1. Uses Requiring Analysis

- a. Uses which are denoted with "AR" indicate that analysis is required. These activities must undergo review by the "Development Review Committee," henceforth known as the "DRC." Should the DRC find it necessary to consult with third-party experts, the costs incurred for this expert shall be paid for by the applicant.
- b. The following information shall be submitted to the DRC, either as part of a building permit, land use application, or on its own:
 - (1) The applicant's name, address, telephone number
 - (2) The landowner's name, address and telephone number, if different than the applicant, and the owner's signed consent to the filing of the application;
 - (3) The street address and legal description of the subject land;
 - (4) The zoning classification, boundaries of base and overlay zoning districts, and present use of the subject land;
 - (5) A complete written description of the use or development for which analysis is required; including:
 - a. Location of proposed use;
 - b. Duration of proposed use;
 - c. Materials and equipment utilized for proposed use;
 - d. Rationale for proposed use; and
 - e. Proposed mitigation efforts.
 - (6) Plan view and cross sections of the site which show:
 - a. The Riparian Protection Area boundary with respect to the subject land;
 - b. The top of bank line, and the boundary of each Riparian Buffer Area (Area A, Area B, Area C, and Area D as defined in this chapter);
 - c. The location and setback of existing and proposed buildings and structures;
 - d. Existing and proposed grades;
 - e. Any nonnative or invasive vegetation identified by location, type, and size, including any area where invasive vegetation is proposed for removal;

- f. 100-year floodplain, past flood hazard areas, geological faults, high liquefaction areas, and slopes thirty percent (30%) or greater;
- g. Habitat of any known threatened or endangered species of aquatic and terrestrial flora or fauna;
- h. If wetlands exist on the subject land, a wetlands delineation approved by the U.S. army corps of engineers; and

(7) Such other and further information or documentation as the DRC may reasonably deem necessary for proper consideration of a particular application, including, but not limited to, geotechnical and hydrological reports.

c. A boundary location or delineation required under this section shall be prepared by a licensed professional hydraulic engineer, hydrologist, wetlands scientist, fluvial geomorphologist, or another equivalent qualified environmental science professional.

d. Any wetland delineation within a stream corridor shall be approved by the U.S. army corps of engineers prior to submittal of the delineation to the DRC

e. If a wetland exists within and extends beyond the 125-150' of the Riparian Protection Area, the outermost edge of the wetland shall be considered the terminus of the Riparian Protection Area Buffer Zone.

f. The DRC shall consider all relevant facts in making its decision on whether to approve a use which requires analysis, including but not limited to the following:

- (1) The goals and purposes of this ordinance;
- (2) The functions and values of the riparian zone;
- (3) The environmental impact of the proposed action;
- (4) Alternatives to the proposed action;
- (5) The relationship between short-term uses and long-term productivity
- (6) Threats to other properties from increases in flooding, erosion, or other hazards;
- (7) The suitability of the activity to the area for which it is proposed, including threats from natural hazards; and
- (8) Measures which would mitigate the impact of any aspect of the proposed regulated activity, including the use of manual equipment versus heavy equipment.

g. The DRC shall not approve or conditionally approve a use requiring analysis unless it finds that the proposed use will not, taking into account individual and cumulative effects, threaten health or safety, result in fraud, cause nuisances, impair public rights in public waters, violate pollution control standards, or violate other regulations. In addition, the DRC shall not issue approval unless it finds that:

- (1) The proposed activity will not cause a net loss of riparian area functions, values, or acreage taking in account the cumulative adverse effects of past activities on the riparian buffer area and reasonably anticipated future activities;
- (2) The permit applicant has, to the extent practical, avoided riparian areas;
- (3) The permit applicant has, to the extent practical, reduced impacts to riparian areas;
- (4) The proposed activity will not result in adverse modification of habitat for or jeopardize plant, animal, or other wildlife species as threatened or endangered by the U.S. Fish and Wildlife Service or the State of Utah Department of Fish and Wildlife; and
- (5) The proposed activity will not violate any other applicable codes and standards.

h. The DRC shall make written findings on requests for approval, stating the reason why the proposed use is approved, conditionally approved, or denied. The DRC may consider all relevant information, including but not limited to:

- (1) The application and supporting documentation;
- (2) Public comments, evidence, and testimony; and
- (3) Reports or comments from other agencies or experts.

i. The DRC may approve, conditionally approve, or deny proposed uses. Such conditions may include, but are not limited to:

- (1) Design measures to reduce project impacts;
- (2) Flood and erosion loss reduction measures to prevent hazard losses;
- (3) Compensatory mitigation measures to offset losses to riparian area acreage, functions, and values;
- (4) Inclusion in the deed for the property a warning that the property contains a riparian area and that activities in such area are subject to regulatory requirements;
- (5) Erosion control and stormwater management measures;
- (6) Erection of riparian area markers and signs delineating the boundary between riparian areas and adjacent lands; and
- (7) Other conditions necessary to protect riparian area functions, offset losses, and prevent increased natural hazard losses in the community.

2. Minor Exceptions

- a. Minor exceptions to the provisions of this section may be approved by the DRC as provided in this subsection. A minor exception may not authorize an exception to a prohibited land use.
- b. Criteria: A minor exception shall be approved only if the DRC finds that the exception:

- (1) Is of a technical nature (i.e., relief from a dimensional or design standard);
- (2) Will not authorize a deviation of more than ten percent (10%) from an otherwise applicable numerical standard;
- (3) Is required to compensate for some unusual aspect of the site or proposed use or development generally not shared by landowners in the vicinity;
- (4) Supports a goal or objective consistent with any relevant city master plan;
- (5) Will protect sensitive natural resources or better integrate development with the riparian environment;
- (6) Will avoid filling, grading, and construction of retaining walls; and
- (7) Is not likely to:
 - 1. Interfere with the use and enjoyment of adjacent land;
 - 2. Create a danger to public health or safety, particularly from flooding or erosion damage;
 - 3. Change stream bank stability or increase the likelihood of erosion; or
 - 4. Affect water quality.

- c. Conditions May Be Required: In granting a minor exception, the DRC may attach any conditions necessary to meet the intent of this section.
- d. Time Limit: The DRC shall prescribe a time limit within which action under the minor exception shall begin. Failure to begin such action within the established time limit shall void the minor exception.
- e. Burden Of Proof: The applicant shall have the burden of providing evidence to support a minor exception request.

3. Reasonable Use Exception

- a. If a landowner believes application of the provisions of this section would deny all reasonable economic use of the owner's lot or parcel of land, the owner may request a reasonable use exception pursuant to this subsection. A request for a reasonable use exception shall be made to the DRC and shall include basis for the owner's reasonable use exception request and any additional information which the DRC deems relevant to the request.
- b. Criteria: The DRC shall approve a request for a reasonable use exception if all of the following criteria are met:
 - i. The application of the provisions of this section would deny all reasonable economic use of the land;
 - ii. No other reasonable economic use of the land would have less impact on the riparian corridor area;
 - iii. The impact to the riparian corridor area resulting from granting the reasonable economic use request is the minimum necessary to allow for reasonable economic use of the land;

- iv. The inability of the applicant to derive reasonable economic use of the land is not the result of actions by the applicant or the applicant's predecessor;
- v. The reasonable economic use exception mitigates the loss of riparian corridor area functions to the extent reasonably feasible under the facts of the application;
- vi. The reasonable economic use exception only authorizes a permitted or conditional use authorized by the underlying district and conforms to other applicable requirements of this title to the extent reasonably feasible under the facts of the application.
- vii. Construction associated with the use or development is not reasonably anticipated to result in the discharge of sediment or soil into any storm drain, wetland, water body, or onto an adjacent lot or parcel; and
- viii. Except as otherwise required under a reasonable use exception, the proposed use or development:
 - 1. Will result in equal or better protection for the riparian corridor area, considering the provisions of this section, as reasonably determined by the DRC; and
 - 2. Will not occupy more than fifty percent (50%) of the total area within areas A and B described in subsection D2 of this section.

- c. Burden Of Proof: The applicant shall have the burden of providing evidence to support a reasonable economic use exception request.
- d. Action by DRC: Following review of a complete application for analysis, and any request for a minor exception or reasonable use exception, the DRC shall, pursuant to provisions of this section: a) approve the use; b) approve the use subject to specific modifications; or c) deny the use.

F. Subdivision Plat Notes

All subdivisions which include land which lies within the Riparian Protection Area shall have the following note included on the recorded plat: "This subdivision includes lands which are in the Riparian Protection Area and are subject to the regulations of the Riparian Protection Area chapter within Cottonwood Heights City Code. Please contact the Community and Economic Development Department for details."

G. Definitions

The following definitions shall apply to the provisions set forth in the title herein:

ARMORING: Material such as rock, concrete or stone filled gabion baskets placed along a stream bank to prevent erosion.

BANK: The confining sides of a natural stream channel, including the adjacent complex that provides stability, erosion resistance, and aquatic habitat.

BEST MANAGEMENT PRACTICES (Also Known As BMPs): The utilization of methods, techniques, or products demonstrated to be the most effective and reliable in minimizing adverse impacts on water bodies and the adjacent stream corridors.

CHANNEL: The bed and banks of a natural stream or river.

COARSE WOODY DEBRIS: Pieces of woody material or downed trees having a diameter of at least three inches and a length greater than three feet.

DAYLIGHTING: Restoring a piped drainage system to an open, natural condition.

DEVELOPMENT: Includes, but is not limited to, the carrying out of any building activity, the making of any material change in the use or appearance of any structure or land, or the dividing of land into parcels by any person. Development includes, but is not limited to the following activities or uses:

1. The construction of any principal building or structure;
2. Increase in the intensity of use of land, such as an increase in the number of dwelling units or an increase in nonresidential use intensity that requires additional parking;
3. Alteration of a shore or bank of a creek, pond, river, stream, lake or other waterway;
4. Commencement of drilling (except to obtain soil samples), the driving of piles, or excavation on a parcel of land;
5. Demolition of a structure;
6. Clearing of land as an adjunct of construction, including clearing or removal of vegetation and including any significant disturbance of vegetation or soil manipulation;
7. Deposit of refuse, solid or liquid waste, or fill on a parcel of land; and
8. For the purpose of this section, any ground disturbing activity.

The following operations or uses shall not be taken for the purpose of these regulations to involve "development":

1. Work by a highway or road agency or railroad company for the maintenance of a road or railroad track, if the work is carried out on land within the boundaries of the right of way;
2. Utility installations as stated in subsection 21A.02.050B of this title;
3. Landscaping for residential uses; and
4. Work involving the maintenance of existing landscaped areas and existing rights of way such as setbacks and other planting areas.

DEVELOPMENT REVIEW COMMITTEE OR DRC: A committee of city staff members that reviews proposed development projects for compliance with this code, consisting of the director and others designated from time to time by the director and approved by the city council, such as the city engineer, one or more of city planning staff members, the city's fire inspector, a representative of the city's public works provider, the city attorney, and/or others

EMERGENCY RESPONSE: A response to an emergency which has the potential to result in severe property damage, injuries, or death, and warrants action to protect the public health, safety, and welfare.

EROSION: The process by which a ground surface is worn away by wind, water, ice, gravity, artificial means, or land disturbance.

EROSION CONTROL: A construction method, structure, or other measure undertaken to limit the detachment or movement of soil, rock fragments, or vegetation by water, wind, ice, and/or gravity.

FLOOD HAZARD AREA: An area with a high flood potential as determined by the federal emergency management agency.

FLOODPLAIN: The area likely to be inundated by water when the flow within a stream channel exceeds bank full discharge stage.

FOOTPRINT: The area under a structure at ground or grade level.

GRADING: Any act by which soil is cleared, stripped, moved, leveled, stockpiled, or any combination thereof, and includes the conditions that result from that act.

GROUND DISTURBING ACTIVITY: Removing, filling, dredging, clearing, destroying, armoring, terracing or otherwise altering an area through manipulation of soil or other material.

HABITAT: The physical environment utilized by a particular species, or species population.

HAZARDOUS TREE: A dead or dying tree, dead parts of a live tree, or an unstable live tree (due to structural defects or other factors). Hazardous trees have the potential to cause property damage, personal injury, or fatality in the event of a failure.

HEAVY EQUIPMENT: A vehicle or machine designed for construction or earthmoving work including, but not limited to, a backhoe, bulldozer, compactor, crane, dump truck, excavator, front loader, grader, scraper, skid-steer loader, or tractor.

HIGH LIQUEFACTION POTENTIAL: Soil conditions where an earthquake with a fifty percent (50%) probability of occurring within a 100-year period will be strong enough to cause liquefaction.

INVASIVE SPECIES: A usually nonnative species that is highly successful in a new habitat and whose presence is significantly detrimental to native species. For purposes of this chapter, these species are defined by Salt Lake County Health Department's Noxious Weed List.

LIQUEFACTION: The strength and stiffness of saturated soil is reduced by earthquake shaking.

LOW IMPACT STREAM CROSSING: A walkway which does not impede the flow of water in a stream channel during a period of high water flow.

MINIMAL GRADING: Movement of soil with hand tools which does not change the existing elevation by more than one foot (1').

NATIVE VEGETATION: One or more plant species indigenous to a particular area.

NO DISTURBANCE LINE: That line which is located twenty five feet (25') from the top of bank as shown on illustration A of this section.

ONE HUNDRED FOOT BUFFER LINE: That line located one hundred feet (100') from the top of bank as shown on illustration A of this section.

100-YEAR FLOODPLAIN: An area adjoining a river or stream likely to be inundated during a flood having a magnitude expected to be equaled or exceeded once in one hundred (100) years on average.

OPEN FENCE: An artificially constructed barrier that allows light transmission and visibility through at least fifty percent (50%) of the fence.

OPEN PERMEABLE PATIO OR DECK: A patio or deck which does not impede the flow of water in a stream channel during a period of high water flow.

PERMEABLE: A material which allows liquids to freely pass through to the soil below.

REGULATORY AGENCY: U.S. Army Corps of Engineers, the Federal Emergency Management Agency, the State Engineer of Utah, Salt Lake County Flood Control, a public utility company, or other equivalent agency as determined by the Development Review Committee (DRC)

RIPARIAN AREA: An area including a stream channel or wetland, and the adjacent land where the vegetation complex and microclimate conditions are products of the combined presence and influence of perennial and/or intermittent water, associated high water tables, and soils that exhibit some wetness characteristics.

RIPARIAN CORRIDOR: A one hundred foot (100') wide stream corridor measured from the top of bank of the adjacent stream or wetland, which has a total width of at least two hundred feet (200') plus the width of the streambed plus any adjacent wetland.

RIPARIAN SETBACK: The area between the top of bank of a stream and a line parallel to the stream which is a defined distance from the top of bank.

STREAM CORRIDOR: A stream and adjacent land within a defined distance from the stream.

STRUCTURE: Anything constructed or erected with a fixed location on the ground or in/over the water bodies in the City. Structure includes, but is not limited to, buildings, fences, walls, signs, and piers and docks, along with any objects permanently attached to the structure.

STRUCTURE LIMIT LINE: That line which is located fifty feet (50') from the top of bank as shown on illustration A of this section.

TOP OF BANK: A location, based on the hinge points of a bank, as the origin from which the Riparian Protection Area is measured from. Top of bank may be derived from a single defined hinge point, in which a waterway has a sloped bank rising from the toe of the bank to a hinge point at the generally level upper ground. Top of bank may also be derived from multiple hinge points, in which the waterway's bank rises from the toe of the bank, levels off one or more times, and then rises to a hinge point at the generally level upper ground. In this case, the hinge point at or directly above the FEMA 100-year flood surface elevation is the "top of bank."

~~-UNSTABLE SOIL: Soil on a slope of greater than thirty percent (30%) which is likely to move unless stability measures are undertaken to prevent such movement.~~

~~-WETLAND: Those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.~~

H. Measurements

1. All distances noted in this section shall be measured along a horizontal plane from the top of bank of the waterway to the applicable riparian boundary line, property line, edge of building or structure, or other point. These distances are not measured by following the topography of the land. Consequently, on steeply sloped topography the measured overground distance may not accurately reflect the distances specified in the permits and conditions specified in this section.
2. When any distance measurement results in a fractional number, the required distance shall be measured to the nearest foot. Any fraction less than one-half foot (1/2') shall be disregarded and fractions of one-half foot (1/2') or larger shall be included in the measurement.
3. When measuring a required minimum distance, the measurement shall be made at the shortest distance between the two (2) points and perpendicular to the riparian setback line.