M E M O R A N D U M

DATE:	June 27, 2008
то:	City Council Members
FROM:	Janice Jardine, Land Use Policy Analyst
RE:	Riparian Corridor Overlay District Ordinance Review Consultant Project

BACKGROUND

In January 2008, as part of the Council action adopting the initial Riparian Corridor Overlay zoning regulations, the Council hired consultants with experience in land use policy, zoning and riparian corridor regulations and public involvement to conduct a detailed review of the new zoning regulations and to gather input from stakeholders to assist in the review and ordinance refinement process.

The consultant team reevaluation process, diagnosis report and recommendations for proposed ordinance revisions included the following. (In addition, the diagnosis report contains a discussion of important non-regulatory issues that go hand-in-hand with potential RCO revisions.)

- A detailed review of the Riparian Corridor Overlay regulations, other applicable city regulations, standards and plans relevant to stream corridor preservation
- Interviews with city, county, and other governmental employees, members of the City Council, City board and commission members, community council representatives, property owners, developers, and interested residents.
- An evaluation of the RCO in comparison to the best practices used by progressive communities across the western United States and across the country.
- Tours of residential, commercial, and institutional properties along several major stream corridors.

On June 10, 2008, the Council received a presentation from the consultant team relating to the reevaluation process, diagnosis report and recommendations evaluation of the newly adopted Riparian Corridor Overlay Zoning District regulations.

ATTACHMENTS

The following items are attached for Council review and discussion:

- Draft ordinance with Table of Contents
- Updated Riparian Corridor Ordinance Review Project Diagnosis and Fact Sheet

POTENTIAL DISCUSSION ITEMS

Items for further Council discussion includes the following:

- 1. Tree removal and replacement (draft ordinance pg. 13, item #4)
- 2. Development regulations on undeveloped residential and non-residential lots (draft ordinance pgs. 13-14, items 5 & 6)
- 3. Incentive options for daylighting stream corridors (draft ordinance pg. 14, item #7)
- 4. Other issues identified by the Council or consultant

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21A.34.130 RCO Riparian Corridor Overlay District:

A. General Provisions:

1. **Purpose Statement:** The purpose of the RCO Riparian Corridor Overlay district is to minimize erosion and stabilize stream banks, improve water quality, preserve fish and wildlife habitat, moderate stream temperatures, reduce potential for flood damage, as well as preserve the natural aesthetic value of streams and wetland areas of the City. This overlay district is intended to provide protection for the following above-ground streams, stream corridors and associated wetlands east of the Interstate 215 Highway: City Creek, Red Butte Creek, Emigration Creek, Parleys Creek, and Jordan River. Where these streams flow through areas already developed on the effective date of this section (January 15, 2008), the RCO is intended to achieve a reasonable balance between the dual nature of these areas: natural streams and developed land uses.

2. **District Location:** The RCO district applies to that portion of any lot or parcel of land located between the annual high water level (AWHL) of City Creek, Red Butte Creek, Emigration Creek, Parleys Creek and Jordan River, where not located below ground, and a line which is one hundred (100) feet along a horizontal plane from the AHWL. The RCO district does not apply to any lot or parcel where a stream, with respect to such lot or parcel, is located entirely below ground in a pipe or covered channel.

3. **Applicability:** The RCO district regulations set forth in this section supplement regulations in the underlying base zoning district. RCO regulations shall govern any use or development conducted within the RCO district unless specifically exempted under the provisions of this section or another provision of this title.

a. A RCO permit is supplementary to any land use permit authorized under this title.

b. Canals and irrigation ditches are not subject to this section.

c. The Surplus Canal and watercourses west of Interstate 215 are regulated under Section 21A.34.050, "LC Lowland Conservancy Overlay District", of this title and are not subject to this section.

4. **Relationship to Other Laws:** The requirements of the RCO district shall apply in addition to any other applicable federal, state, county, or city law or regulation.

a. Any use or development within the RCO district shall conform to applicable provisions of Title 20 (Subdivisions) and this Title 21A (Zoning). Compliance with the requirements of this section shall not relieve a landowner from compliance with other applicable provisions of this title except as expressly otherwise set forth in this section.

b. If a landowner obtains a permit for a use or development located within the RCO district that is entirely within the jurisdiction of a federal or state government agency or Salt Lake County, then the landowner shall also apply for a riparian protection permit. If the relevant federal, state, or county agency approves the use or development as in compliance with the agency's requirements, then the city shall issue the riparian protection permit subject to compliance with the federal, state, or county approval and shall not independently review the use or development for compliance with this section.

c. If any portion of a proposed use or development is outside the jurisdiction of a federal, state, or county agency, then the applicant shall comply with the provisions of

this section and shall obtain a riparian protection permit if required under the provisions of this section.

d. Salt Lake County shall not be required to obtain a riparian protection permit for any County flood control activity authorized by the Utah Code within or along a stream in the RCO district. However, Salt Lake County shall obtain a riparian protection permit for any stream restoration and non-flood control development or other use conducted by the County which is located within the RCO district.

e. Any person who leases federal or state land, or any appurtenant structure or building located within the RCO district shall obtain a riparian protection permit if required under the provisions of this section.

f. A City department or agency that conducts a use or development within the RCO district shall follow the requirements of this section and obtain a riparian protection permit if required for such use or development.

g. The Department of Public Utilities shall develop general permits as needed to address routine channel maintenance, possible emergency situations, and similar activities. These general permits shall provide how a particular use or development shall be conducted to avoid adverse stream corridor impacts and shall include required mitigation and restoration measures consistent with the provisions of this section. The process for reviewing and approving a general permit shall be the same for a public or private person or entity.

B. Decision-Making Authority:

1. **Public Utilities Director:** The Public Utilities Director shall be responsible for implementing and administering the provisions of this section. The Public Utilities Director:

a. May authorize a minor exemption and reasonable use exception to the provisions of this section as set forth, respectively, in Subsections 21A.34.130B6 and B7;

b. May render an administrative interpretation of any provision in this section pursuant to the procedures set forth in Chapter 21A.12 of this title;

c. May not make any decision involving land use, zoning, subdivision, legal conformity in a zoning district, historic preservation, restoration, rehabilitation, or demolition of any structure except as expressly set forth in this section;

d. Shall expedite the permit review process if an applicant reasonably demonstrates imminent danger to individuals or property is associated with the subject land;

e. May adopt reasonable regulations, including approval of general permits, to implement the provisions of this section; and

f. May designate one (1) or more staff persons within the department to carry out these responsibilities. Wherever this section refers to the Director, such reference shall also include the Director's designee.

2. **Public Utilities Advisory Committee:** Pursuant to the authority granted in Subsection 2.40.110I of the Salt Lake City Code, the Public Utility Advisory Committee shall hear and decide any appeal arising from a final decision granting or denying a riparian protection permit pursuant to procedures set forth in Chapter 21A.16 of this title.

3. **Appeal of Decision:** Any person adversely affected by any decision of the Public Utilities Advisory Committee may, within thirty (30) days after the decision is made, present

to the District Court a petition specifying the grounds on which the person was adversely affected.

C. **Review Process and Procedures:** An application for a riparian protection permit shall be considered and processed as set forth in this subsection.

1. **Riparian Protection Permit Application:** A complete application shall be submitted to the Department of Public Utilities and shall contain at least the following information submitted by the applicant, unless certain information is determined by the Public Utilities Director to be inapplicable or unnecessary to evaluate the application under the provisions of this section. The Public Utilities Director may determine, consistent with the requirements of this section, other application matters such as the scale, quality, and details shown on maps and plans, and the number of application copies required for submittal.

a. The applicant's name, address, telephone number and interest in the land;

b. 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;

c. The street address and legal description of the subject land;

d. The zoning classification, zoning district boundaries and present use of the subject land;

e. A complete description of the use or development for which a riparian protection permit is requested;

f. Plan view and cross sections of the site which show:

i. The riparian corridor boundary with respect to the subject land;

ii. The annual high water line and each setback line from the AHWL (25', 50' and 100'), elevation, and slope;

iii. The location and setback of existing and proposed buildings and structures;

iv. Existing and proposed grades;

v. Any non-native or invasive vegetation identified by location, type, and size, including any area where invasive vegetation is proposed for removal;

vi. 100-year flood plain, past flood hazard areas, geological faults, high liquefaction areas, and slopes thirty (30) percent or greater;

vi. Habitat of any threatened or endangered species of aquatic and terrestrial flora or fauna;

viii. If wetlands exist on the subject land, a wetlands delineation approved by the U.S. Army Corps of Engineers; and

ix. Such other and further information or documentation as the Public Utilities Director may reasonably deem necessary for proper consideration of a particular application, including but not limited to geotechnical and hydrological reports required under Subsection 21A.34.130E8.

2. **Riparian Corridor Delineation:** The riparian corridor shall be delineated at the annual high water level.

a. When the annual high water level cannot be found, the top of the channel bank may be substituted if approved by the Public Utilities Director.

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

Public Utilities Department.

c. 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 Public Utilities Director.

d. If a wetland exists within and extends beyond the one hundred (100) feet of the riparian corridor, the outermost edge of the wetland shall be the outer edge of the riparian corridor.

3. **Determination of Completeness:** Upon receipt of an application for a riparian protection permit, the Public Utilities Director shall make a determination of completeness of the application pursuant to Section 21A.10.010 of this title.

4. **Fees:** An application for a riparian protection permit shall be accompanied by any applicable fee established under this title or on a consolidated fee schedule as may be adopted by the City Council.

5. Notice of Applications for Additional Approvals: Whenever in connection with an application for a riparian protection permit, an applicant is requesting another type of approval, such as a building permit, subdivision, conditional use permit, variance, special exception, or change in zoning or land use, each required notice shall include a reference to all other requested approvals.

6. **Minor Exceptions Authorized:** Minor exceptions to the provisions of this section may be approved by the Public Utilities Director as provided in this subsection.

a. **Criteria:** A minor exception shall be approved only if the Public Utilities Director finds the exception:

i. Is of a technical nature (i.e., relief from a dimensional or design standard);

ii. Is required to compensate for some unusual aspect of the site or proposed use or development generally not shared by landowners in the vicinity;

iii. Supports a goal or objective consistent with the RCO master plan, subsequent restoration efforts, or the purpose of this section;

iv. Will protect sensitive natural resources or better integrate development with the riparian environment;

v. Will avoid filling, grading, and construction of retaining walls;

vi. Is not likely to:

A. Interfere with the use and enjoyment of adjacent land;

B. Create a danger to public health or safety, particularly from flooding or erosion damage;

C. Change stream bank stability or increase the likelihood of erosion; or D. Affect water quality;

b. **Conditions May Be Required:** In granting a minor exception, the Public Utilities Director may attach any conditions necessary to meet the intent of this section. Any performance bond required by such conditions shall be administered as provided in this title and any other applicable provision of the Salt Lake City Code.

c. **Time Limit:** The Public Utilities Director 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.

d. **Burden of Proof:** The applicant shall have the burden of providing evidence to support a minor exception request.

7. **Reasonable Use Exception:** 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 Public Utilities Director and shall include basis for the owner's reasonable use exception request and any information set forth in Chapter 2.66 of the Salt Lake City Code which the Public Utilities Director deems relevant to the request.

a. **Criteria:** The Public Utilities Director shall approve a request for reasonable use exception when 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; and

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.

b. **Burden of Proof:** The applicant shall have the burden of providing evidence to support a reasonable economic use exception request.

8. Action by Public Utilities Director: Following review of a complete application for a riparian protection permit, and any request for a minor exception or reasonable use exception, the Director shall, pursuant to provisions of this section: 1) approve the permit; 2) approve the permit subject to specific modifications; or 3) deny the permit. A riparian protection permit for the proposed use or development shall be approved if the Public Utilities Director determines such action is in accord with the provisions of this section and meets the following criteria:

a. 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

b. Except as otherwise required under a reasonable use exception, the proposed use or development:

i. Will result in equal or better protection for the riparian corridor area, considering the provisions of this section, as reasonably determined by the Public Utilities Director; and

ii. Will not occupy more than fifty (50) percent of the total area within Areas A and B described in Subsection 21A.34.130D2.

9. **Appeal of Decision:** Any person adversely affected by a final decision of the Public Utilities Director may within thirty (30) days after such decision appeal to the Public Utility Advisory Committee as provided in Subsection 21A.34.130B2.

10. **Application Process Flow Chart:** The riparian corridor permit application process is conceptually illustrated in Table 21A.34.130-1 at the end of this section. The provisions of this section shall prevail over any conflict with the flow chart.

D. Permitted Uses:

1. **In General:** No person shall engage in any ground-disturbing use or development on a lot or parcel that will remove, fill, dredge, clear, destroy, armor, terrace, or otherwise alter the RCO district through manipulation of soil or other material except as allowed by:

a. This section and, where required by this section, the Public Utilities Director; or

b. The U.S. Army Corps of Engineers, Salt Lake County Flood Control, the Utah State Engineer, or any other government agency with jurisdiction over land in the RCO district to the extent provided in Subsection 21A.34.130A4.

2. **Permitted Use Areas - Developed Land:** The following use areas are hereby established for developed lots or parcels within the RCO district as shown on Illustration A:

a. Area A: a "no disturbance area" located between the annual high water line and twenty-five (25) feet from the AWHL;

b. Area B: a "structure limit area" located between twenty-five (25) and fifty (50) feet from the AWHL; and

c. Area C: a "buffer transition area" located between fifty (50) and one hundred (100) feet from the AWHL.

3. **Permitted Use Area - Undeveloped Land:** On an undeveloped lot or parcel within the RCO district, Area A, the "no disturbance area" described above, shall be extended to one hundred (100) feet from the AHWL.

4. **Permitted Use Table - Developed Land:** Permitted uses allowed on a developed lot or parcel within the RCO district are shown on Table 21A.34.130-2. Uses allowed by right are indicated by the letter "P"; uses which require a riparian protection permit are indicated by the letters "RPP"; and prohibited uses are indicated by a blank space. Any use or development not shown on this table shall be prohibited unless authorized by a provision of this section or another applicable provision of this title.

Table 21A.34.130-2 Uses Allowed By Area On Developed Lots				
Use	Area A	Area B	Area C	Comments
Any lawfully established use, development, or structure existing on January 15, 2008	Р	Р	Р	See Subsection D6

	1	1	1	i	
Any action not constituting development or a ground-disturbing activity except as otherwise set forth on this table	Р	P`	Р		
Maintenance of existing lawn and garden areas	Р	Р	Р		
Herbicide, pesticide and fertilizer application in accordance with best management practices	Р	Р	Р		
Replanting non-invasive vegetation	Р	Р	Р		
Maintenance tree pruning	Р	Р	Р		
Minor ground-disturbing activity	Р	Р	Р	See Subsections D7 and	
Manual removal of trash, storm debris, and fallen, dead, or diseased trees	Р	Р	Р	E1b	
Invasive plant removal	Р	Р	Р		
Planting non-invasive vegetation	Р	Р	Р		
Maintenance of existing fence or structure	Р	Р	Р		
Pruning or tree removal within utility easement by responsible entity	Р	Р	Р		
Tree removal and replacement	Р	Р	Р	Permitted with some exceptions; see Subsection E4	
Activities approved by U.S. Corps of Engineers or State Engineer	Р	Р	Р	See Subsection D7g	
Open fence	RPP	Р	Р	See Subsections D8 and	
Open patio/deck	RPP	Р	Р	E1b	
Minimal grading		Р	Р	See Subsection D8	
Compost from yard debris		Р	Р		
Mechanized removal of fallen, dead, or diseased trees		Р	Р		
Use or development allowed by underlying district			Р	See Subsection D9	
Commercial parking lot				Not permitted; see	
Leach field, storm water retention pond, and detention basin				Subsection D9	
Public utilities work	RPP/P	RPP/P	RPP/P	See Subsection D11	
New construction or maintenance of access stairs, landscape walls, and paths		RPP	RPP	See Subsection E1	

Low impact stream crossing	RPP			
Maintenance of existing irrigation and flood control device	Р	RPP	RPP	
Installation and maintenance of erosion control device	RPP	RPP	RPP	
Building replacement and expansion	RPP	RPP	Р	See Subsection E2
Removal of debris or trees with heavy equipment	RPP	RPP	RPP	See Subsection E3
Trail on publicly-owned right-of-way	RPP			See Subsection E9

5. **Permitted Use Table - Undeveloped Land:** Permitted uses allowed on an undeveloped lot or parcel within the RCO district are shown on Table 21A.34.130-3. Uses allowed by right are indicated by the letter "P"; uses which require a riparian protection permit are indicated by the letters "RPP"; and prohibited uses are indicated by a blank space. Any use or development not shown on this table shall be prohibited unless authorized by a provision of this section or another applicable provision of this title.

Table 21A.34.130-3Uses Allowed By Area On Undeveloped Lots				
Use	Area A	Comments		
Any lawfully established structure or use existing on January 15, 2008	Р	See Subsection D6		
Any action not constituting development or a ground-disturbing activity except as otherwise set forth on this table	Р			
Maintenance of existing lawn and garden areas	Р			
Herbicide, pesticide and fertilizer application in accordance with best management practices	Р			
Replanting non-invasive vegetation	Р			
Maintenance tree pruning	Р			
Minor ground-disturbing activity	Р	See Subsections D7 and		
Manual removal of trash, storm debris, and fallen, dead, or diseased trees	Р	E1b		
Pruning or tree removal within utility easement by responsible entity	Р			
Tree removal or replacement	Р			
Invasive plant removal	Р			

Planting non-invasive vegetation	Р	
Maintenance of existing fence or structure		
Activities approved by U.S. Corps of Engineers or State Engineer	Р	See Subsection D7g
Commercial parking lot		Not permitted; see
Leach field, storm water retention pond, and detention basin		Subsection D9
Public utilities work	RPP/P	See Subsection D11
Trail on publicly-owned right-of-way	RPP	See Subsection E9

6. Uses Allowed by Right on Developed Land - All Areas: The following uses may be conducted on a lot or parcel within Area A, B, or C without a riparian protection permit:

a. Any lawfully established structure or use existing on January 15, 2008;

b. Maintenance of lawns and gardens, including benches and pathways;

c. Application of herbicide, pesticide, and fertilizer, subject to applicable state and federal regulations and in accordance with best management practices identified by the Department of Public Utilities;

d. Replanting of vegetation with non-invasive species identified by the Public Utilities Director;

e. Maintenance pruning of existing trees; and

f. Any other activity which is not a development or other ground-disturbing activity.

7. Uses Allowed by Right on Developed or Undeveloped Land - Area A: The following minor ground-disturbing activities shall be allowed by right in a residential district on a developed or undeveloped lot or parcel within Area A without a riparian protection permit:

a. Manual removal of trash, storm debris, and fallen, diseased, or dead trees or other vegetation by the landowner;

b. Pruning or removal of trees within a utility easement by the responsible entity;

c. Tree removal and replacement as provided in Subsection 21A.34.130E4;

d. Removal of invasive plants;

e. Planting of noninvasive vegetation shown on a list of approved and prohibited vegetation within riparian protection areas published by Department of Public Utilities and/or the urban forester;

f. Maintenance of an existing fence or structure within the original footprint if:

i. Further stream bank armoring is not required; and

ii. Soil is not unstable due steep slope movement; and

g. Construction activities approved by the U.S. Army Corps of Engineers under the Federal Clean Water Act or the River and Harbors Act, or by the Utah State Engineer under the Stream Alteration Permit Program as set forth in Subsection 21A.34.130A4.

8. Uses Allowed by Right on Developed Land - Area B: Uses allowed within Area B on a developed lot or parcel without a riparian protection permit include:

a. Any use described in Subsection 21A.34.130D4;

b. Open fencing approved under a general permit promulgated by the Public Utilities Director;

c. Construction of open patios and decks with footings with a maximum of two (2) feet above grade;

d. Minimal grading;

e. Compost from yard debris; and

f. Mechanized removal of fallen, dead, or diseased trees.

9. Uses Allowed by Right on Developed Land - Area C: Uses allowed within Area C on a developed lot or parcel without a riparian protection permit include any use or development allowed by the underlying district or as set forth in Subsections 21A.34.130D7 and D8, or Subsection 21A.34.130E1b, except a leach field, storm water retention pond, detention basin, or commercial parking lot.

10. Uses Allowed by Right on Undeveloped Land: Uses allowed on undeveloped land shall be as authorized by the underlying base zoning district, subject to:

a. The one hundred (100) foot non-disturbance area requirement described in Subsection 21A.34.130D3; and

b. The use and development standards set forth in Subsection 21A.34.130E.

11. **Public Utilities Work:** In addition to the uses listed on the foregoing tables, the City may complete work within the RCO district as provided in this subsection.

a. **Emergency Work:** Emergency work to protect an immediate threat to life or land is allowed without a riparian protection permit.

i. The City department undertaking the work shall notify the Public Utilities Director of activity within twenty-four (24) hours thereafter.

ii. Any stream channel or riparian protection area damaged as a result of City work shall be restored. The Department of Public Utilities shall issue a riparian protection permit for such restoration work and shall inspect and approve the work undertaken.

iii. Temporary emergency structures, sand bags, and other emergency-related materials shall be removed from the site in timely manner.

b. **Other Work:** The following work may be undertaken within a riparian corridor protection area subject to the issuance of a riparian protection permit as provided in this subsection:

i. Matters of public safety;

ii. Work to protect life or property in an emergency;

iii. Flood control;

iv. Channel or riparian restoration;

v. Maintenance, including storm drainage system, irrigation structures, utility and street work;

vi. Public utilities projects approved by the Department of Public Utilities,

including but not limited to new utility or street work; bridge maintenance, repair, replacement, or new construction; public trails, such as bike and pedestrian paths located on publicly-owned land;

vii. Public gathering places such as amphitheaters and gazebos located on publicly-owned land;

viii. Maintenance access roads; and

ix. Utility service devices such as storm water lift stations and irrigation structures.

c. **Equipment:** Plans submitted for a riparian protection permit shall include a description of equipment to be used for any work proposed. Such equipment shall be sufficiently sized for the task and chosen to minimize any impact to a stream channel and the riparian corridor area.

d. **Construction Design Standards:** The Department of Public Utilities shall develop construction design standards applicable to projects approved under this subsection.

E. Use and Development Standards: Other uses and development standards within the RCO district shall be conducted as provided in this subsection and shall be consistent with the RCO Master Plan.

1. Area A: Development within Area A shall conform to the standards set forth in this subsection.

a. **Developed Lot in a Residential District:** On a developed lot in a residential district, no new construction shall occur closer than twenty five (25) feet to the annual high water level, except as permitted by this subsection.

b. **Allowed Minor Ground-Disturbing Activities:** The following activities shall be allowed in a residential district within Area A if heavy equipment is not used and as provided by a riparian protection permit:

i. New construction or maintenance of access stairs, landscape walls; and/or paths between vertical levels within Area A, or between Area A and Area B, and no more than one (1) per level in terraced areas;

ii. An open permeable patio or deck not located within a streambed and constructed in a manner that:

A. Will not impede any high water flow above the AHWL;

B. Does not change existing grade; and

C. Is not greater than one hundred fifty (150) square feet;

iii. Low impact stream crossings;

iv. Construction or maintenance of open fences, beyond the AWHL in any area within the RCO district, if approved by the Public Utilities Director or as authorized by a general permit promulgated by the Director;

v. Maintenance of existing irrigation and flood control devices; and

vi. Installation and maintenance of erosion control devices, approved, if necessary, by the U.S. Army Corps of Engineers, Salt Lake County Flood Control, the Utah State Engineer or any other government authority with jurisdiction. Such erosion controls may include armoring, if, as reasonably determined by the approving authority:

A. The armoring is permitted or required by the Public Utilities Director and/or one (1) or more of the foregoing government authorities;

B. The armoring is necessary to protect the structural integrity of an existing structure on the land or significant loss of land area due to erosion;

C. The landowner has reasonably exhausted less intrusive methods to prevent significant land damage;

D. The armoring is placed only where necessary to prevent significant land damage in the foreseeable future; and

E. The proposed armoring will not negatively impact other adjacent or downstream land.

2. Area B: Development within Area B shall conform to the standards set forth in this subsection.

a. **Replacement Buildings:** Replacement or rebuilding of a preexisting structure in Area A and/or B shall require a riparian protection permit and is allowed, consistent with the continuation of nonconforming uses and noncomplying structures as set forth in Subsection 21A.38.050 of this title, if:

i. The structure replaces a preexisting structure with the same type of structure or a structure of lesser impact pursuant to underlying zoning district standards;

ii. No portion of the footprint of the new structure is any nearer to the AHWL than the nearest point of the preexisting structure to the AHWL;

iii. The total square footage of the portion of the footprint of the new structure to be located within Area A and/or B does not exceed the total square footage of the footprint of the old structure as it was located within Area A and/or B;

iv. The new structure:

A. Does not require further armoring of the stream bank; and

B. Is not located in any unstable area due to movement of a steep slope, unstable soils, or geological activity along a fault that will not support the structural footprint; and

C. Complies with applicable requirements of the underlying zoning district and any other applicable City regulation except as otherwise set forth in this section.

b. **Building Expansion:** Notwithstanding any other provision of this title to the contrary, an existing structure (not including a deck, patio, or similar structure) may be expanded by up to twenty-five (25) percent in Area A or B as provided by a riparian protection permit if such expansion does not result in any structure being built closer to the AHWL than any portion of the existing structure.

i. The foregoing rule shall also apply to a replacement structure.

ii. As a tradeoff for allowing expansion or replacement with a larger structure, the Public Utilities Director shall require, as a condition of the riparian protection permit, that the landowner spend five (5) percent of the project cost on stream bank restoration or specify a minimum number of lineal feet of stream bank that shall be restored based on the size of the expansion and consistent with the RCO Master Plan and any subsequent restoration project applicable to the entire stream corridor.

3. Use of Heavy Equipment in Areas A and B: Heavy equipment may be used in Area A and B as provided by a riparian protection permit issued pursuant to standards promulgated by the Public Utilities Director to minimize and mitigate impacts from the use thereof, and subject to any applicable federal, state, and county requirements.

4. **Tree Removal and Replacement:** Trees located in Area A, B, or C which are fallen, diseased, or dead, or which are less than two (2) inches in caliper, may be removed without a riparian protection permit so long as replacement trees are planted in the same area.

a. The cumulative total caliper of trees which are removed shall be equal to the cumulative total caliper of newly planted trees.

b. Removal of live trees is prohibited without approval from the Public Utilities Director. In determining whether a live tree should be removed, the Director shall consult with the Zoning Administrator and the Urban Forester.

c. Replacement trees shall be an approved species shown on the list of approved and prohibited vegetation within riparian protection areas published by Department of Public Utilities and/or the Urban Forester and shall have the following minimum size:

i. Deciduous trees shall have a minimum trunk size of two (2) inches in caliper, and

ii. Evergreen trees shall have a minimum size of five feet (5') in height.

d. Any tree which is more than two (2) inches in caliper shall not be removed unless authorized by a riparian protection permit.

e. The Director may promulgate a general permit for tree stump removal in any area within the RCO district.

5. **Development on Undeveloped Residential Lots or Parcels:** Development on an undeveloped residential lot or parcel which is one (1) acre or larger and located within Area A, B, or C shall meet the requirements of this subsection.

a. The no-disturbance setback for such lots shall be shall be increased to one hundred (100) feet for any lot which exceeds one (1) acre.

i. If the depth of the lot or parcel is less than two hundred (200) feet, then the setback shall be reduced by the ratio of the actual lot depth to two hundred (200) feet.

ii. The development potential (density) located within Area B and C may be transferred to the balance of the subject lot or parcel and the minimum lot size in the zoning district may be reduced by the Zoning Administrator, on advice and consultation with the Public Utilities Director, to accommodate such additional density. In the alternative, the development potential (density) may be applied to an adjacent lot or parcel within the control or ownership of the applicant.

b. When a new structure is proposed to be constructed on a lot or parcel with a reduced setback as a result of this subsection, the Zoning Administrator, on advice and consultation with the Public Utilities Director, may reduce required front and side yard setbacks by a factor of twenty-five (25) percent; provided, however, that the setback shall not be reduced by more than the ratio calculated under Subsection 21A.34.130E5aii.

c. In all cases the minimum non-disturbance setback shall be at least fifty (50) feet.

6. Development in Nonresidential Districts: A required setback on a lot or parcel

located in a nonresidential district may be reduced to allow development within twenty-five (25) feet of a stream if the stream is daylighted as provided in Subsection 21A.34.130E7.

7. Incentives for Stream Bank Restoration or Daylighting in Nonresidential Districts:

Option 1 - No incentive

Option 2- Reduced setbacks

Any applicant for a project that daylights a stream or completes a City-approved stream bank restoration program for at least fifty (50) feet along a stream in a riparian corridor shall be allowed to build within twenty-five (25) feet of the AHWL, subject to a riparian protection permit approved by the Public Utilities Director, so long as the applicant:

i. Incorporates best practice storm water management facilities to reduce water pollution as specified by the Public Utilities Director;

ii. Agrees to monitor and control trash, litter, and other pollutants along the stream; and

iii. Installs an amenity in the corridor such as a plaza, benches, trail, and/or sidewalk that is open to and accessible by the public.

Option 3 - Calculation of Allowed Density

The area located within an easement or right-of-way of a covered stream channel shall not be counted for the purpose of determining development potential (density) of a lot or parcel. Any portion of such area which is daylighted may be counted for the purpose of determining the development potential (density) of such lot or parcel.

8. **Steep Slope and Soil Stability Standards:** As part of a riparian protection permit, the Public Utilities Director may require a geotechnical report and impose greater setbacks for structures or buildings from the structure limit line to ensure safety. When unstable soils are suspected, regardless of the slope, the Public Utilities Director may require a geotechnical report, increase the no disturbance line, and impose greater setbacks for a structure or building from the structure limit line to ensure safety.

a. Replacement or repair of an existing retaining structure shall require a riparian protection permit.

b. Each proposed project shall be reviewed on an individual basis.

9. **Trails:** Trails may be established along a publicly-owned right-of-way within any area located in the RCO district.

a. A riparian protection permit shall be required for a trail located in Area A.

b. Public access to private land adjoining a stream channel shall be prohibited unless authorized by the landowner or pursuant to an access easement.

F. **Definitions:** For the purpose of this section the following words and terms shall be defined as forth below and shall apply in addition to terms defined in Chapter 21A.62 of this title.

"Annual high water level (AHWL)" means the average (mean) elevation of City Creek, Red Butte Creek, Emigration Creek, Parleys Creek, and Jordan River occurring during a

calendar year as indicated by fresh silt or sand deposits, the presence of litter and debris, or other characteristics indicative of a high water level.

"Armoring" means material such as rock, concrete or stone-filled gabion baskets placed along a stream bank to prevent erosion.

"Bank" means 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") means 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.

"Building footprint" means the area within the exterior walls of a building which covers the ground at grade level.

"Channel" means the bed and banks of a natural stream or river.

"Daylighting" means restoring a piped drainage system to an open, natural condition.

"Development" means 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. The following activities or uses shall be taken for the purposes of these regulations to involve "development":

a. The construction of any principal building or structure;

b. 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;

c. Alteration of a shore or bank of a pond, river, stream, lake or other waterway;

d. Commencement of drilling (except to obtain soil samples), the driving of piles, or excavation on a parcel of land;

e. Demolition of a structure;

f. Clearing of land as an adjunct of construction, including clearing or removal of vegetation and including any significant disturbance of vegetation or soil manipulation; and

g. Deposit of refuse, solid or liquid waste, or fill on a parcel of land; and

h. 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":

a. 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;

b. Utility installations as stated in Subsection 21A.02.050B of this title;

c. Landscaping for residential uses; and

d. Work involving the maintenance of existing landscaped areas and existing rightsof-way such as setbacks and other planting areas.

"Erosion" means the process by which a ground surface is worn away by wind, water, ice, gravity, artificial means, or land disturbance.

"Erosion control" means 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" means an area with a high flood potential as determined by the

Federal Emergency Management Agency.

"Flood plain" means the area likely to be inundated by water when the flow within a stream channel exceeds bankfull discharge stage.

"General permit" means a permit for a category of uses with similar characteristics authorized by the Public Utilities Director.

"Grading" means any act by which soil is cleared, stripped, moved, leveled, stockpiled, or any combination thereof, and includes the conditions that result from that act.

"Grading, minimal" means movement of soil with hand tools which does not change the existing elevation by more than one (1) foot.

"Ground-disturbing activity" means removing, filling, dredging, clearing, destroying, armoring, terracing or otherwise altering an area through manipulation of soil or other material.

"Habitat" means the physical environment utilized by a particular species, or species population.

"Heavy equipment" means a vehicle or machine designed for construction or earth moving 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" means soil conditions where an earthquake with a fifty (50) percent probability of occurring within a 100-year period will be strong enough to cause liquefaction.

"Leach field" means a porous soil area, through which septic tank leach lines run, emptying treated waste.

"Limit of disturbance" means an area within which construction and development must be contained, including but not limited to development and construction of any building, structure, play area, septic tank, utility, or drainage area.

"Liquefaction" means the strength and stiffness of saturated soil is reduced by earthquake shaking.

"Low-impact stream crossing" means a walkway which does not impede the flow of water in a stream channel during a period of high water flow.

"Native vegetation" means one (1) or more plant species indigenous to a particular area.

"No disturbance line" means that line which is located twenty-five (25) feet from the AHWL as shown on Illustration A.

"Open fence" means an artificially constructed barrier that allows light transmission and visibility through at least fifty (50) percent of the fence.

"One hundred foot (100') buffer line" means that line which is located one hundred (100) feet from the AHWL as shown on Illustration A.

"One-hundred year flood plain" means 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 permeable patio or deck" means a patio or deck which does not impede the flow of water in a stream channel during a period of high water flow.

"Overlay district" - See Section 21A.62.040 of this title.

"Public Utilities Director" means the duly appointed individual serving as director of the Salt Lake City Department of Public Utilities.

"Riparian protection permit" means a permit issued by the Public Utilities Director

containing conditions which regulate or prohibit development under the provisions of this section.

"Riparian area" means 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" means a one hundred (100) foot wide stream corridor measured from the annual high water level (AHWL) of the adjacent stream or wetland, which has a total width of at least two hundred (200) feet plus the width of the stream bed plus any adjacent wetland.

"Riparian setback" means the area between the annual high water level of a stream and a line parallel to the stream which is a defined distance from the AHWL.

"Soil, unstable" means soil on a slope of greater than thirty (30) percent which is likely to move unless stability measures are undertaken to prevent such movement.

"Species, invasive" means a usually non-native species that is highly successful in a new habitat and whose presence is significantly detrimental to native species.

"Storm water detention basin" means an artificial flow control structure used to contain flood water for a limited period of a time to provide protection for areas downstream during peak periods of rain or melting snow.

"Stream" means City Creek, Red Butte Creek, Emigration Creek, Parleys Creek and Jordan River.

"Stream corridor" means a stream and adjacent land within a defined distance from the stream.

"Structure" means 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" means that line which is located fifty (50) feet from the AHWL as shown on Illustration A.

"Wetland" means 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.

G. Measurements:

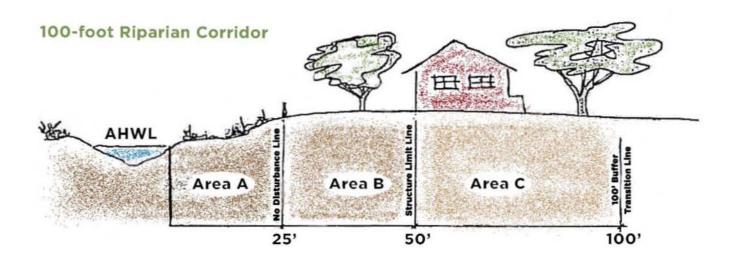
1. All distances noted in this section shall be measured along a horizontal plane from the annual high water level to the applicable riparian boundary line, property line, edge of building or structure, or other point. These distances are not measured by following the topography of the land. Consequently, 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 shall be

disregarded and fractions of one-half foot 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 points and perpendicular to the riparian setback line.

Illustration A 100' Riparian Corridor



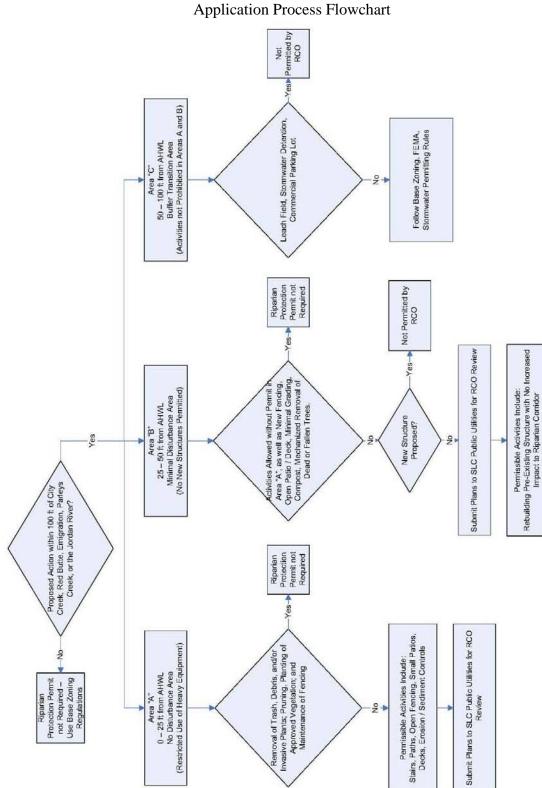


Table 21A.34.130-1