D I A G N O S I S

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In early 2008, the Salt Lake City Council adopted new rules to address development and activities along the city’s major streams. The Riparian Corridor Overlay (RCO), an amendment to the city’s zoning ordinance, regulates development within 100 feet of the average high water line (AHWL) of streams such as City Creek, Red Butte Creek, Emigration Creek, Parley’s Creek, and the Jordan River. The ordinance was prompted by potential development along Emigration Creek.

While the city already had some development standards that provided modest protection for a few streams (the Lowland Conservancy Ordinance), these regulations were quite weak and did not apply most of the streams in the city. Additionally, while federal and state agencies and Salt Lake County have adopted their own stream protection regulations, they apply only to the stream channel plus 20-30 feet from the stream bank in most instances.

The City Council began considering riparian corridor regulations in July 2007. After much staff study, review by the Planning Commission, and considerable public comment, the ordinance was adopted by City Council in January 2008. (See attachment for a more detailed timeline.) The goals of the ordinance include minimizing erosion and sedimentation, stabilizing stream banks, reducing water pollution, protecting fish and wildlife habitat, and preserving aesthetic values.

In adopting the ordinance, the City Council left open the public hearing so that it could consider refinements and fine-tuning of the ordinance to make it function better in practice. It retained Clarion Associates, a Colorado-based planning and zoning consulting firm, and Wilkinson Ferrari & Company, a local public involvement firm, to assist it in examining the ordinance, obtaining public input, and suggesting appropriate revisions. The Council’s goal is to consider and enact revisions no later than July 22, 2008.

This diagnosis is the first step in the review and revision process. It presents the consulting team’s recommendations for potential ordinance revisions. The diagnosis is based on:

- Review of the Riparian Corridor Overlay, other applicable zoning code provisions (e.g., the Lowland Conservancy Overlay), and various city plans relevant to stream corridor preservation;
- Interviews with city, county, and other governmental employees, members of the City Council, Planning Commission, community council representatives, property owners, developers, interested residents, and environmental groups;
- An evaluation of the RCO in comparison to the best practices used by progressive communities across the western United States and across the country; and
- Tours of residential, commercial, and institutional properties along several major stream corridors.

In addition to specific recommendations for reorganizing and revising the RCO, the diagnosis also contains, at the request of City Council and city staff, a discussion of important non-regulatory issues that go hand-in-hand with potential RCO revisions.

100-foot Riparian Corridor

1 The Lowland Conservancy Overlay District, enacted in 1995, applies only to a limited number of the city’s watercourses including the Jordan River, Surplus Canal, and an area designated as lowland protection. This Lowland Conservancy Overlay does not apply to most streams in the eastern portion of the city or in the foothills. Moreover, the district standards are quite weak—they require only a 25-foot stream setback for residential uses and a 50-foot setback for nonresidential.
The RCO District applies to all streams and wetlands east of I-215 including City Creek, Red Butte Creek, Emigration Creek, Parley’s Creek and the Jordan River, and their tributaries.
While the Riparian Corridor Overlay ordinance was quite controversial and there are a number of opportunities to improve and refine its provisions, overall the policies and regulations it embodies compare favorably in basic aspects to those in other progressive western jurisdictions. For example, Fort Collins, Colorado, has adopted a River Conservation District with 300-foot development setbacks along the Poudre River. Eugene, Oregon, has a Waterside Protection Overlay and a Wetland Buffer Overlay that contain similar standards. The setbacks range from 60 to 100 feet depending on the quality of the resource and whether the applicant undertakes site enhancement or restoration. Salt Lake County also requires a minimum 100-foot stream setback, which may be increased if necessary. Additionally, developments are not generally permitted to alter natural waterways or drainage patterns. As a result, the existing RCO regulations provide a solid foundation upon which to build.

That is not to say some important revisions and additions are not appropriate. Interviews with property owners, neighborhood organizations, city staff, and developers revealed a number of revisions that could be made to make the regulations easier to understand and more flexible—while at the same time enhancing the city’s goals of protecting and enhancing the stream corridors. These improvements will be particularly important as some of the last remaining large vacant parcels along the streams are developed and the pace of redevelopment in the city increases.

This section identifies six areas where the city could make revisions or take action to address gaps, weaknesses, and uncertainty in the current RCO:

1. Revise the Ordinance to Be More User-Friendly: Because of the potential for some inappropriate stream corridor development, the RCO was drafted relatively quickly. Not surprisingly, homeowners within the RCO have found it difficult to understand exactly what they can and cannot do. Staff has also struggled with some of the language, particularly definitions of key terms (and lack thereof). There are some commonsense steps the city can take to make the ordinance more user-friendly including clear definitions and use of summary tables and flow charts.

2. Provide More Clarity and Flexibility Regarding Minor Development Activities and Home Additions: During the interview process, homeowners expressed concern and confusion over whether they were prohibited from simple activities such as planting a garden, maintaining existing lawns, holding a wedding or party, or constructing a fence in the protected stream corridor. The ordinance needs to be much clearer on these points so that the average homeowner understands what is and is not allowed. Of even greater concern is the RCO’s strict controls on expansion or replacement of existing structures that basically restrict any construction to the existing house footprint. The diagnosis suggests a more moderate approach that is typical of most zoning codes and has been utilized in other riparian corridor protection ordinances.

3. Tailor Regulations to Better Fit Various Development Contexts and Conditions: The RCO currently applies its regulations through designation of three setback areas (A, B, and C) along each stream. The applicable area standards apply the
same regardless of whether the property is undeveloped or developed or whether it is zoned residential or non-residential (e.g., commercial). Most zoning codes routinely make common-sense distinctions about setbacks and other regulatory provisions depending on the type of development on a parcel. The diagnosis recommends a three-tier approach that reflects differences in development conditions along the stream corridors.

4. Increase Protections and Setbacks on Undeveloped Lots: While there are relatively few undeveloped lots along the city’s major streams, the parcels remaining have great value in terms of wildlife habitat, pollution prevention, aesthetics, and neighborhood character. If the city were starting with a blank slate today, it likely would increase the minimum development setback from the RCO’s current 50 feet to 100 feet or more. We recommend that the city take advantage of the remaining opportunities to increase setbacks on undeveloped parcels to 100 feet, with a safety valve allowing lesser setbacks on shallow lots (but with a minimum of 50 feet on these lots). As an option, the city might consider allowing an increase in density on the remainder of the site to mitigate the impact of the increased setback.

5. Create Incentives for Day-Lighting (Uncovering) and Restoring Streams: The RCO operates primarily through command and control regulations. It contains few incentives that would encourage property owners to uncover and restore buried streams on their property (Indeed, the RCO would actually penalize landowners who did so by pushing their development back from the uncovered stream thus reducing the developable area of the property.). Similarly, there are few incentives that might convince a landowner to restore damaged or highly eroded stream banks. Some modest changes to the RCO can help provide these important incentives with the stipulation that an uncovered stream would be treated as natural (i.e., no chlorination, in-stream fountains, etc.)

6. Clarify Relationship of Riparian Corridor Overlay With Federal/State/County Riparian Regulations: The federal and state governments and Salt Lake County all administer their own independent set of stream corridor regulations. The current RCO is not entirely clear as to which set of regulations governs where there is overlap or conflict with the new city regulations or whether obtaining a federal/state/or county permit exempts a landowner from obtaining a city permit. Additionally, the RCO needs to be clarified as to the extent that city and county agencies must comply with its standards.

In addition to discussing these six major themes and making relevant recommendations for refinement, the diagnosis also includes a brief discussion of related non-regulatory issues (such as educational efforts) that the City Council may wish to address.

Because of the potential for some inappropriate stream corridor development, the RCO was drafted relatively quickly. Not surprisingly, homeowners within the RCO have found it difficult to understand exactly what they can and cannot do. Staff has also struggled with some of the language, particularly definitions of key terms (and lack thereof). There are some commonsense steps the city can take to make the ordinance more user-friendly including clear definitions and use of summary tables and flow charts:

- Define Key Terms and Clarify Measurement Rules: The RCO has many important substantive terms that are not included in the short definition section. Terms such as ‘ground-disturbing activities, low-impact...
bridges, and minimal grading” are key ones that need to be carefully defined. City staff has already begun to assemble a list of terms they feel need better explanation/definition; this list can serve as a good starting point for clarifying and enhancing the definition section.

A related issue is making clear how various distances set forth in the ordinance will be measured (e.g., the required 25-foot setback from the average high water line in Area A). The most understandable and easily administered method used in many communities and most riparian ordinances is to simply measure the distance horizontally on the ground. However, where a lot contains very steep slopes along the stream corridor, an argument can be made that the distance should be measured horizontally from a hypothetical vertical line that extends up from the average high water line. If the distance is measured horizontally on the ground in such instances, a structure might be able to be constructed only a few feet from the top of the slope—which may have adverse consequences in terms of slope stability, erosion, and visual impacts. Some river corridor ordinances address the steep slope issue by requiring that development setback a minimum distance from the top of the slope (e.g., St. Paul, Minnesota, requires a setback of 40 feet from the top of a bluff) or require an additional setback depending on the steepness of the slope (e.g., add 50 feet for slopes greater than 20%).

We recommend that the horizontal, on-the-ground measurement approach be discussed and that an additional setback be considered (e.g., 25 feet) from the top of any steep slope whose highest point is more than 15 feet above the stream bank.

• Use Tables and Flow Charts to Summarize and Illustrate Information and Procedures:

To determine which uses are allowed in Areas A, B, or C, the reader must wade through a number of sections of the ordinance and skip back and forth between cross references. This exercise can leave a homeowner’s head spinning and lead to significant confusion. Indeed, during the interviews the consulting team ran into many instances where homeowners had misunderstood or misinterpreted the ordinance, because it is difficult to follow. For example, some thought they could not build fences within the corridor, which is allowed.
Residential Zone District — Developed Lot

SAMPLE TABLE

<table>
<thead>
<tr>
<th>USE/ACTIVITY</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>New open fences</td>
<td>RPP</td>
<td>A</td>
<td>A</td>
<td>See development standards.</td>
</tr>
<tr>
<td>Minor land disturbing activity</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>See definition.</td>
</tr>
<tr>
<td>Open patios/decks</td>
<td>RPP</td>
<td>A</td>
<td>A</td>
<td>See development standards.</td>
</tr>
<tr>
<td>Removal of debris, trees with heavy equipment</td>
<td>P</td>
<td>A</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Landscape walls</td>
<td>P</td>
<td>A</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Leachfields</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
</tbody>
</table>

A=Allowed by right   RPP=Riparian protection permit required   P=Prohibited

problem is to include summary tables of permitted uses and activities for each area (A, B, C). The table above is a simple illustration of what such tables might look like in the ordinance. Users should be able to tell at a glance what is allowed and what is prohibited within each area.

Another user-friendly tool that should be added to the ordinance is a flow chart depicting the review and decision making steps embodied in the ordinance (see sample flow chart on page 9). City staff has done exactly that for its internal administrative use. That flow chart can be a good starting point for a simplified version in the ordinance. The more detailed flow chart being developed by staff should be posted on-line so landowners seeking necessary permits can get a birds-eye, easily understandable view of the permitting process.

A final point related to user-friendliness is the need to revamp the ordinance to reflect a more standard code organization that is easily comprehended and navigated. The current ordinance starts off with a purpose statement, which is common. After that, however, it tends to jump back and forth among a variety of topics—substantive setback standards, allowed uses, permit processes, more development standards, and application requirements. The result is that readers can easily become confused and lost trying to find provisions applicable to their particular situation. We therefore suggest a new organization as set forth in the accompanying box:

Typical Land Use Ordinance Organization
2. Decision-Making Authority
3. Procedures
4. Uses/Districts
5. Development Standards
6. Definition and Measurements

o General Provisions: This section would contain the purpose statement, applicability provisions (e.g., all development and ground-disturbing activity are subject to the ordinance unless specifically exempted), delineate the boundary of the overlay, and make clear the relationship to other federal, state, county, and city ordinances/regulations.

o Decision-Making Authority: This section would set forth the various agencies/personnel with decision-making authority (e.g., the Public Utilities Director) and make clear the extent of their powers.
Salt Lake City Riparian Corridor Overlay (RCO) Ordinance Flow Chart

**Proposed Action within 100 ft of City Creek, Red Butte, Emigration, Parleys Creek, or the Jordan River?**

- **Yes**: Area "C" 50 – 100 ft from AHWL Buffer Transition Area (Activities not Prohibited in Areas A and B)
  - Riparian Protection Permit not Required
  - Submit Plans to SLC Public Utilities for RCO Review
  - Permissible Activities Include: Rebuilding Pre-Existing Structure with No Increased Impact to Riparian Corridor
  - Not Permitted by RCO

- **No**: Riparian Protection Permit not Required
  - Area "B" 25 – 50 ft from AHWL Minimal Disturbance Area (No New Structures Permitted)
    - Activities Allowed without Permit in Area "A", as well as New Fencing, Open Patio / Deck, Minimal Grading, Compost, Mechanized Removal of Dead or Fallen Trees.
    - Submit Plans to SLC Public Utilities for RCO Review
    - Permissible Activities Include:
      - Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls
      - Leach Field, Stormwater Detention, Commercial Parking Lot

Area "A" 0 – 25 ft from AHWL No Disturbance Area (Restricted Use of Heavy Equipment)
- Riparian Protection Permit not Required
- Permissible Activities Include:
  - Removal of Trash, Debris, and/or Invasive Plants; Pruning, Planting of Approved Vegetation; and Maintenance of Fencing

**New Structure Proposed?**
- **Yes**: Not Permitted by RCO
- **No**: Riparian Protection Permit not Required

**Proposed Action within 100 ft of City Creek, Red Butte, Emigration, Parleys Creek, or the Jordan River?**

- **Yes**: New Structure Proposed?
  - **Yes**: Not Permitted by RCO
  - **No**: Riparian Protection Permit not Required

**Submit Plans to SLC Public Utilities for RCO Review**

**Permissible Activities Include:**
- Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls

**Follow Base Zoning, FEMA, Stormwater Permitting Rules**

**Area "B" 25 – 50 ft from AHWL Minimal Disturbance Area (No New Structures Permitted)**
- Activities Allowed without Permit in Area "A", as well as New Fencing, Open Patio / Deck, Minimal Grading, Compost, Mechanized Removal of Dead or Fallen Trees.
- Submit Plans to SLC Public Utilities for RCO Review
- Permissible Activities Include:
  - Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls

**Area "A" 0 – 25 ft from AHWL No Disturbance Area (Restricted Use of Heavy Equipment)**
- Removal of Trash, Debris, and/or Invasive Plants; Pruning, Planting of Approved Vegetation; and Maintenance of Fencing
- Riparian Protection Permit not Required
- Permissible Activities Include:
  - Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls

**Submit Plans to SLC Public Utilities for RCO Review**

**Permissible Activities Include:**
- Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls

**Follow Base Zoning, FEMA, Stormwater Permitting Rules**

**Area "C" 50 – 100 ft from AHWL Buffer Transition Area (Activities not Prohibited in Areas A and B)**
- Riparian Protection Permit not Required
- Permissible Activities Include:
  - Leach Field, Stormwater Detention, Commercial Parking Lot

**Not Permitted by RCO**

**Follow Base Zoning, FEMA, Stormwater Permitting Rules**

**Submit Plans to SLC Public Utilities for RCO Review**

**Permissible Activities Include:**
- Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls

**Follow Base Zoning, FEMA, Stormwater Permitting Rules**

**Submit Plans to SLC Public Utilities for RCO Review**

**Permissible Activities Include:**
- Stairs, Paths, Open Fencing, Small Patios, Decks, Erosion / Sediment Controls
2. PROVIDE MORE CLARITY/FLEXIBILITY REGARDING MINOR DEVELOPMENT ACTIVITIES AND HOME ADDITIONS

During our interviews with homeowners and other interested citizens there were recurring questions about exactly what was allowed under the ordinance. They worried that commonly accepted activities were prohibited or would require a permit. For example, some landowners thought that they could not fence their property. Others wondered if gardens required a permit, because they might fall under the ordinance’s control of “ground-disturbing activities,” or whether landscape maintenance and lawn mowing were allowed. Some asked if play areas were allowed. A number asked if they had to get a permit for weddings or a party in their backyards. Similarly, it appears the ordinance prohibits the cutting of live trees in the riparian corridor unless a tree is classified as an invasive plant.

While it might be argued that most of these minor activities should be controlled (by permit if necessary), it is our opinion that because their impacts are modest and the annoyance factor of homeowners having to seek permission for them is high, they should be specifically allowed without the need for a permit. This is the approach taken in most riparian protection ordinances. For example, Corvallis, Oregon, which has some strong riparian protection standards, makes clear that routine maintenance of landscaped areas, lawns, and structures is allowed. Clear standards are set forth regarding pruning of trees in the protected area.

This is not to say that these minor activities might not be subject to common-sense standards that would be promulgated by the Public Utilities Director (e.g., forbidding solid fencing or requiring that any trees removed be replaced by others). Additionally, the ordinance should make very clear that certain potentially harmful activities that are typically addressed in many riparian ordinances (but not covered in the RCO) are either prohibited or require a permit (e.g., use of pesticides within 25 feet of the stream, storage of motor vehicles, housing of animals, storage of hazardous wastes, dumping of yard wastes, etc.).

A good reference in this regard is the Baltimore County, Maryland, Buffer Protection and Management Ordinance that contains a thoughtful list of permitted and prohibited uses (Section 14-432).

A similar issue revolves around the current ordinance’s restrictions on the replacement or expansion of existing homes in the A and B areas of the overlay district. These restrictions are much tougher than typically found in a zoning code and many riparian protection ordinances. If an existing house is located within either Areas A or B, the portion in A or B apparently cannot be expanded beyond the existing footprint. Additionally, if a homeowner desires to replace an existing structure, there are significant limits on its location and size (e.g., no portion in Areas A and B can exceed the existing square footage in A and B). The practical result is that homeowners will not be able to expand an existing house to, for example, accommodate a new arrival in the family or to reconfigure a home outside an existing outdated footprint (that may actually be too close to a stream). Not surprisingly, we heard complaints and serious concerns from many existing homeowners in the district that they could not add-on to their houses or would not be able to sell their homes because of the inability for a new owner to expand or replace the structure with a modern home on a different footprint than the existing one. In effect, the new regulations have rendered some homes non-conforming in terms of the riparian ordinance and impose strong restrictions that will make expansion or rebuilding on a different footprint very difficult.

Most other riparian corridor ordinances provide a safety valve to allow some expansion of non-conforming residential uses. For example, the Corvallis, Oregon, riparian corridor regulations allow replacement of a
structure within the same square footage elsewhere on the site and provide that setback requirements can be reduced if the structure is moved out of the protected buffer area (Section 4.13.50.b). Vancouver, Washington, exempts any development activity that does not increase impervious surfaces and expansions that increase impervious surface by less than 500 square feet if the stream setback is not decreased (Ch. 20.740). Applicants are encouraged to undertake mitigating enhancement activities.

A third issue that falls into this category is the current prohibition on the use of heavy equipment in the stream corridor in most instances without a riparian protection permit. This means that anyone (including city employees) who would need to use heavy equipment (not defined) to remove a dead or fallen tree or debris that is obstructing the stream channel or a culvert must first apply for and obtain a permit. Similarly, the use of heavy equipment to install or maintain erosion controls is apparently prohibited (Section C.1.b). Such restrictions on the use of heavy equipment such as cranes and small mechanized equipment like frontend loaders and backhoes in such instances seem unrealistic and potentially counterproductive.

To address these issues, we suggest the following:

1. Expand the list of minor permitted activities and uses in Areas A and B to include, for example, gardens, benches, and tree removal (with replacement). Clarify that weddings, parties, garage sales, and similar activities are allowed by right. Also consider creating a system of general permits for certain activities by which the city would promulgate standards and then allow the activity to proceed without a formal permit application if the landowner complies with those standards. The general permit rules could be posted on-line and permits printed over the internet if the landowner certified he would be in compliance (similar to how software companies require on-line purchases to accept certain conditions/terms before downloading). Fencing and emergency activities are prime candidates for a general permit system. Importantly, the ordinance should make clear that the city will not require any public access to a private parcel as part of the RCO regulatory process.

2. Allow homeowners to expand their houses (not including decks or similar structures) by up to 25% in Areas A or B if the expansion does not increase the degree of nonconformity—that is, the expansion does not result in any structure being built closer to the stream than parts of the existing structure. The same rules would apply to replacement structures. As a tradeoff for allowing expansions or replacement with larger structures, the city might require that the landowner spend a percentage of the project cost (e.g., 5%) on stream bank restoration or specify a minimum lineal feet of stream bank that must be restored based on the size of the expansion (e.g., Corvallis, Oregon, requires 100 lineal feet of restoration for every 500 square feet of expansion).

3. Allow the use of heavy equipment in Areas A and B in a limited number of circumstances subject to standards to be promulgated by the Public Utilities Director to minimize and mitigate possible impacts. (Note that applicable federal, state, and county permits would still be required, if any.)

4. Establish a system of administrative modifications that would authorize the Public Utilities Director to grant minor modifications from the standards in the ordinance without a public hearing (vs. a variance with its requirement for a public hearing and strict approval criteria). For example, the director might be authorized in limited circumstances to decrease the required setback by up to 10% so that, for example, a structure might be required to setback 22.5 feet instead of 25, thus helping to preserve a large specimen tree elsewhere on the site. This system, which has been successfully employed in a number of jurisdictions such as Fort Collins, Colorado, and Tucson, Arizona, would include specific criteria to guide the director in making a decision. Similarly, the Vancouver, Washington, critical areas protection ordinance grants the city staff the authority to grant “minor exceptions” of up to 10% from the ordinance standards in accordance with nine criteria (Section 20.740.070) such as a finding that the exception will not degrade the function of the critical area.

We believe that these revisions will go a long way in making the ordinance more palatable to the average homeowner in the corridor and defuse some of the concern about its implementation.
3. Tailor Regulations to Better Fit Development Context and Conditions:

The current ordinance applies the Area A, B, and C setbacks and related regulations uniformly whether the lot is undeveloped or developed, residential or commercial. While this is not particularly unusual for river protection regulations, most zoning ordinances are tailored to the type of use on a site and potential impacts. For example, front and side yard setbacks in commercial zone districts are typically less than in residential areas, reflecting the normal accepted character of business areas. Also, commercial developments typically are required to provide less open space than residential ones, reflecting the fact that residential projects generate more demand for open space in the form of parks and recreational areas. Baltimore County, Maryland’s, Buffer Protection Ordinance specifies a 35-foot setback from the stream buffer for residential and 25 feet for industrial and commercial structures.

Similarly, single-family developments are often subject to fewer building design standards than multi-family or commercial projects, because they are smaller structures and have less visual impact in most instances. For these same reasons, we believe a good case can be made for greater customization of the stream setbacks in the ordinance, tailoring them to whether there is already development on a lot, the type of development, and the potential impacts of a project.

We recommend the following:

1. Lots in Residential Zone Districts With Existing Housing. These lots should be granted a wider array of uses/activities than undeveloped lots and greater flexibility regarding expansion or replacement of existing structures.

2. Lots in Residential Zone Districts That Are Undeveloped. These lots present some important opportunities to increase the scope of protection and preserve wider swaths of wildlife habitat. We suggest that the Area A no-disturbance setback be increased to 100 feet for these lots with a safety valve as outlined in Section 4 below.

3. Lots in Nonresidential Zone Districts. Most of these lots will be in commercial zone districts. In these areas, reduced setbacks may be justified to allow development within 25 feet of a stream (vs. 50 feet as now specified), particularly in tandem with incentives for stream bank restoration and day-lighting of buried streams. On the other hand, institutional uses (parks, hospitals, colleges) which typically have more open space available might be held to standards similar to that of residential lots depending on whether they were vacant or already developed.

4. Increase Protections/Setbacks on Undeveloped Lots

As noted above, the few remaining larger vacant lots in the city within the RCO represent important opportunities for enhanced protection. If the city was starting with a clean slate, it in all likelihood would not allow building to within 50 feet of a stream. But that is not the case, and thus the current RCO takes into account preexisting structures in establishing its controls. Most stream protection research and literature suggest setbacks of 100 feet and more to fully control runoff, improve water quality, and provide adequate wildlife habitat. With that in mind, we recommend that no development be allowed in Areas A, B, or C (i.e., within 100 feet of the AHWL) on vacant parcels in the RCO district. Importantly, as noted above, the ordinance should make clear that the additional setback does not mean that private land must be open to public access.

As a safety valve for those parcels that are shallow and the 100-foot setback would make them difficult or impossible to develop, we suggest a sliding scale setback formula be applied. To illustrate, if the lot depth is less than 200 feet (say 150 feet) then the setback would be reduced by the ratio of the actual lot depth to 200 feet (150)/200 = 75%). Seventy-five percent would be multiplied by 100 feet (the standard setback for a lot >200 feet) to arrive at the appropriate reduced setback of 75 feet. There would be a minimum setback of at least 50 feet in all cases.

To further ease any potential burden for smaller lots and better accommodate a new structure in the reduced setback area, the city might give the Planning Director, on advice and

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2 See E. Hawes and Markelle Smith, Riparian Buffer Zones: Functions and Recommended Widths, Yale School of Forestry and Environmental Studies (April 2005); Seth Wenger and Laurie Fowler, Protecting Stream and River Corridors: Creating Effective Local Riparian Buffer Ordinances, Carl Vinson Institute of Government, University of Georgia (2000).
in consultation with the Public Utilities Director, the ability to reduce front and side yard setbacks (as is done in the Bend, Oregon, with regard to development on small legal existing vacant lots). Salt Lake City already has a special exception/administrative hearing procedure for modifying residential infill setbacks that might serve as a model.

If the city decides to increase the setback on undeveloped lots, it may also wish to consider allowing the density attributable to the additional setback to be transferred to the remainder of the site so that the overall permissible density of residential development or square footage of commercial/industrial development remains the same.

5. CREATE INCENTIVES FOR DAY-LIGHTING (UNCOVERING) AND RESTORING STREAMS

Successful land use regulations often include incentives to encourage appropriate action above and beyond the bare necessity required by an ordinance. The current ordinance contains few such incentives, which could help provide some important benefits to the city, especially with regard to stream restoration, while taking some of the sting out of the controls it imposes.

Indeed, the ordinance as it now stands actually creates some disincentives that potentially undermine some stream protection city goals. For example, miles of streams in the city are buried beneath the ground. This is particularly true in commercial areas—something that is typical in most cities. However, several recent commercial and institutional developments (e.g., in the Sugarhouse area) demonstrate the great potential of encouraging the private sector to daylight buried streams and rehabilitate stream banks to provide attractive public gathering places and increase the attractiveness of the business precinct. Unfortunately, the current ordinance throws up a roadblock. If a stream is buried under a commercial lot, the owner can build to the normal setbacks in the zone district—typically very close to the front and side lot lines. However, if the stream is day-lighted, the development will automatically have to set back at least 50 feet and perhaps more in the case of parking.

To remove this disincentive and create a powerful incentive to improve streams, we suggest that the ordinance be revised to allow any project that daylights a stream or
undertakes a city approved stream bank restoration program be allowed to build within 25 feet of the AHWL so long as it adopts best practice storm water management facilities to reduce water pollution and agrees to monitor and control trash, litter, and other pollutants. Additionally, the city should consider allowing public plazas and trails in Area A in commercial areas if restoration is undertaken. Importantly, the uncovered stream should be required to be maintained in as natural state as possible (and thus, for example, chlorination of the water would not be allowed or in-stream features such as fountains.) We have also suggested above several other steps the city might take to create incentives or opportunities for restoration. For example, expansion of non-conforming structures in the setback areas might be tied to restoration of a specified amount of lineal stream frontage.

6. **Clarify Relationship of Riparian Corridor Overlay Regulations with Regulations of Other Jurisdictions**

Clarifying the relationship between the RCO’s requirements and other federal, state, and county regulations relating to streams alterations is very important. Each of these entities regulates some portion of stream corridors in the city (See box summarizing their jurisdictions.).

The current ordinance could be interpreted as saying that if a landowner obtains a permit from one of these other entities for stream alteration activities, then he does not have to obtain a city permit (See RCO Section C.1.) Based on conversations with City Council members and city staff, this was not the intent of the RCO ordinance. Additionally, past experience has shown that these other agencies do not always focus on the key goals embodied in the RCO ordinance (such as protecting wildlife habitat and aesthetic values).

Another important issue that needs to be resolved is whether the county or city agencies must obtain a permit for ground-disturbing activities within the scope of the RCO. The same question has been raised with respect to companies that lease buildings or land from the federal or state governments.

Based on discussions with staff and City Council Members and consultation with federal, state, and county agencies, we recommend the following clarifications:

1. If a landowner obtains a permit for activities that lie entirely within the jurisdictional boundary of the federal or state government (e.g., a wetlands disturbance permit from the U.S. Army Corps of Engineers) or Salt Lake County, then the landowner would be required to obtain a city permit, but the city permit requirements would be met by satisfying the federal, state, and county requirements. According to city staff, the county will automatically refer applications for a county flood control permit to the city and take the city’s comments into account before issuing the permit and therefore typically all city concerns would be met. The primary reason for requiring a city permit is that this will allow the city to be aware of stream-side related projects, which currently are sometimes approved without any city knowledge or input.

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**Stream Alteration Permits**

- **FEDERAL**
  U.S. Army Corps of Engineers, under Section 404 of the Clean Water Act, issues permits for the discharge of dredged or fill material into navigable waters and wetlands. Minor activities may be allowed by a general permit which eliminates individual review.

- **STATE**
  Requires permit for stream alteration activities within 2X bank full width to a maximum of 30 feet or within riparian canopy dripline.

- **COUNTY**
  Title 17 of the county code requires flood control permits for specified stream alteration activities (e.g., bank stabilization) and any other activity carried out within 20 feet of the top of the channel bank.
7. RELATED NON-REGULATORY ISSUES

In the course of our interviews and discussions with citizens, city staff, and others, we became aware of important related issues that do not directly involve ordinance revisions. City Council Members and staff asked that we document these issues and offer our perspective on them.

- **Restoration:** A recurring comment from homeowners in the RCO was that they were being subjected to regulations even though it was the city, by increasing storm water flows and not maintaining its own land, that had caused much of the erosion and damage to the stream channel along Emigration, Red Butte, and other creeks. Whether this is accurate or not is not really the issue for the future. RCO regulations may help prevent further degradation, but will have only limited ability to provide incentives for restoration of the stream corridors. That is why the city’s plans to undertake comprehensive studies of 4 major streams (Phase 1—Red Butte and Emigration; Phase 2—Parley’s and City Creek) as a prelude to restoration and remediation are so important as a strong sign of its commitment to good stream corridor stewardship and best management practices. These studies will include a stream inventory, water quality assessment, habitat evaluation, land-use study, and management plan (including desired future conditions and restoration cost) among other topics.

- **Signage:** During the interview process, we heard that trespassing on private property along streams in the RCO corridor has been a perennial problem, one that homeowners feared would only get worse with enactment of the RCO ordinance. Thus the ordinance should clarify that these entities must follow the RCO requirements just as a private landowner must.

The work plan for the studies includes a significant stakeholder/community involvement element. The first phase studies are to be underway by July 2008. In the meantime, the city should use every opportunity to inform property owners in the RCO about the upcoming studies and begin to discuss the best ways to engage them in the process. For example, an information fact sheet about the studies, including schedules, could be placed on the city’s web site, distributed to community council leaders, and emailed directly to the many homeowners who have participated in the RCO process.

- **Signage:** During the interview process, we heard that trespassing on private property along streams in the RCO corridor has been a perennial problem, one that homeowners feared would only get worse with enactment of the RCO ordinance. Thus the ordinance should clarify that these entities must follow the RCO requirements just as a private landowner must.

All city agencies should be required to submit applications under the RCO just as any private entity would. However, the city should develop general permits to address emergency situations, routine channel maintenance, and similar activities. These general permits would spell out how the particular activity should be carried out to avoid adverse impacts and would list required mitigation/restoration measures.
stream corridors, the city has erected signs notifying citizens of the boundary line.

As a show of good faith and because property owners along the streams are being asked to comply with an additional set of regulations, the city should consider creating a standardized signage program to help address potential trespassing. This might include, for example, the city developing uniform, attractive signage that would make clear the location of private and public lands within the RCO. The city might make such signs available at no charge to landowners who could erect them where public land (like parks) and rights-of-way (like streets) abut private property.

Vancouver, Washington, has an interesting provision in its zoning ordinance section on critical area protection that is designed to help make clear the boundaries of the riparian no-disturbance area. The city is required to post permanent signs on all public and private property (on each residential lot or every 200 feet) to delineate the edge of the required riparian no-disturbance setback area.

- **Education:** The city needs to work with non-profit organizations and community councils to undertake a program to educate landowners about the RCO ordinance and best management practices for land along streams. Many homeowners have expressed (and demonstrated through their care of the riparian corridor) that they want to cooperate with the city in protecting and restoring the creeks. However, they are not always clear on how to do the right thing (e.g., how to remove existing trees without damaging stream banks, what are the best trees to plant along the corridor, what can they do to assist in restoration, etc.). An important educational tool would be a stream corridor user’s guide that discusses the need for the RCO ordinance, summarizes its regulations/procedures in plain English, and discusses some simple best management practices. The guide could be used in a series of educational workshops the city would help convene with community councils and homeowner associations. A good model is a stream care guide produced by the St. Louis County, Missouri, Soil and Water Conservation District.

  [https://www.dnr.mo.gov/env/wpp/nps/resources/G00-NPS-09/00-nps-09_guide.pdf](https://www.dnr.mo.gov/env/wpp/nps/resources/G00-NPS-09/00-nps-09_guide.pdf)

In the longer term, the city should seriously consider helping to establish a non-profit entity for public lands within the riparian corridor like Denver’s Greenway Foundation to enhance and restore the city’s creeks. The Greenway Foundation ([www.greenwayfoundation.org](http://www.greenwayfoundation.org)) was established in 1974 by the city with one-time funding of $2 million. Its goal has been to reclaim environmentally the public stretches of the South Platte River in Denver and establish the river as a recreational amenity. Since then the foundation has partnered with numerous public and private agencies to create over $60 million of environmental, aquatic, recreational, and open space improvements on public lands along the South Platte and its tributaries throughout the Denver metro area. In 2002, the South Platte River Greenway was recognized by the Bruner Foundation as one of the nation’s best urban reclamation projects. Along the way, the Greenway Foundation has helped educate several generations of citizens about the benefits of a healthy river system.
OVERVIEW

Salt Lake City recently adopted an ordinance which created new rules for the City’s stream corridors. The Riparian Corridor Overlay (RCO) District regulates development activities within 100 feet of a natural waterway’s Annual High Water Line (AHWL). The RCO District covers above-ground stream corridors in the City, including City Creek, Red Butte Creek, Emigration Creek, Parley’s Creek and the Jordan River, as well as their tributaries.

The ordinance was prompted by discussions concerning a proposed development near Emigration Creek. During these discussions, the Salt Lake City Council concluded that existing City rules do not provide adequate guidelines for protecting the City’s riparian corridors, a unique resource and amenity in our urban environment.

This is the beginning of a long-term effort by the City to develop a comprehensive program to protect its riparian corridors. The ordinance is intended to help protect these corridors by lowering flood potential, minimizing erosion and decreasing pollution to improve water quality and preserve waterways for present and future City residents.

After adopting the ordinance in mid-January, the City Council commissioned a detailed review of the regulations and expects to consider revisions to the RCO ordinance in July. The way the ordinance works will likely change as a result of this review, but the regulations are not likely to be repealed.

In addition, this summer the Salt Lake City Public Utilities Department will begin a two-year in-depth study of current conditions along Red Butte, Emigration, Parley’s and City Creeks. Information from this study will be used to help create a long-range stream corridor program, which will evaluate ways to better manage storm water, help prevent bank erosion and provide opportunities for riparian preservation and restoration.

WHAT IS A RIPARIAN CORRIDOR?

“Riparian” is defined as “of or relating to the banks of a natural course of water.” A “riparian corridor” is the area located along these banks. These corridors, which act as natural filters, help keep streams, creeks and other waterways healthy. They improve water quality by filtering out pollutants from surface runoff and help prevent erosion. And, they shade water to prevent temperature increases and enhance biodiversity and provide food and shelter for wildlife.

Salt Lake City’s riparian corridors integrate nature into the City’s highly developed urban environment in a unique and valuable way. Benefits include aesthetic property enhancements for City residents who live next to streams, access to nature areas in City parks located near these streams and improved opportunities to view wildlife native to riparian corridors.
Riparian Corridor

**WHY DID THE SALT LAKE CITY COUNCIL ADOPT NEW RULES AND WHY NOW?**

During discussions of a development proposal, the City Council concluded that existing land use rules were not adequate to regulate development activities near streambeds in most of the City. Existing federal, state and county regulations apply to Salt Lake City’s streams. These rules protect in-stream water quality, natural resource values and water rights, and assist in flood control. However, the regulations are limited primarily to stream channels, which include the bed and banks, and areas within 30 feet from the top of a stream bank. These existing regulations do not provide the specific enhancement and protection opportunities sought by the City for its riparian corridors.

Because development activities near a stream can adversely affect the health of a riparian corridor, the City’s ordinance extends protection, on a graduated basis, to areas 100 feet from the annual high-water level on both sides of the stream. This provides needed buffer areas to minimize erosion, stabilize banks and prevent pollution. The new regulations are necessary to balance protecting a valuable resource, the City’s streams, with residential and commercial use of land located along these corridors.

More in-depth study of the issues affecting the City’s riparian corridors is needed. The City is committed to working with county, state, federal and other agencies to understand and address these issues.

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**Will the City Be Constructing Public Trails on Private Property Along the Corridors?**

Nothing in the RCO ordinance provides public access to private property. Construction of public trails on private property along the stream corridors is not part of this project. While earlier drafts of the Salt Lake City Open Space Master Plan included suggestions to create public trails along riparian corridors, these ideas were conceptual in nature and not intended to be actual trail alignments. Also, the City will be posting signs at the edges of public areas to discourage the public from trespassing.

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**Ordinance Adoption and Refinement Process**

**July 17, 2007** – SLC Council passes six-month temporary zoning regulation restricting new construction or reconstruction within corridor areas.

**August – December 2007** – SLC Planning Division develops proposed RCO ordinance and collects comments from property owners and general public.

**September – November 2007** – SLC Planning staff holds open house to hear public comment and conducts Planning Commission briefings and hearings.

**January 8, 2008** – SLC Council holds public hearing to receive property owner and general public comments on the RCO ordinance. Draft ordinance is revised.

**January 15, 2008** – SLC Council adopts RCO ordinance and Legislative Intents, and leaves hearing open for 180 days to consider refinement.

**February 2008** – SLC Council retains services of consultants with experience in land use, riparian corridor regulations and public involvement.

**March and April 2008** – Consultants hold small focus group meetings with stakeholders to hear concerns and discuss possible refinements to the RCO ordinance.

**Late April and May 2008** – Consultants attend community council meetings to provide process updates, gather additional input, and consider issues.

**Late May 2008** – Consultants make available for public review and comment a ‘diagnosis’ document providing recommendations for refining the RCO ordinance.

**June 10, 2008** – Consultants brief SLC Council regarding results of the ordinance refinement process including recommendations.

**JUNE 11, 2008** – Consultants hold public open house from 4:30-6:30 p.m. at the City Library Main Branch.

**June 23, 2008** – Refined RCO ordinance made available for public review and comment.

**July 1, 2008** – SLC Council holds final public hearing to receive public comment on proposed refined ordinance.

**July 22, 2008** – SLC Council formally considers refined RCO ordinance.
WHAT DO THE REGULATIONS MEAN FOR PROPERTY OWNERS IN THE RCO DISTRICT?

The Salt Lake City Council has adopted a program that currently consists of different restrictions in three areas. Existing structures are “grandfathered” as legally complying development.

A Riparian Protection Permit may be needed for certain development activities or uses in the three overlay areas. This permit is required in addition to standard construction building permits and can be obtained from the Salt Lake City Department of Public Utilities.

Property owners contemplating property improvements or new construction should refer to City zoning regulations and contact the City’s BUZZ Center at (801) 535-7700 for assistance.

Here is a summary of what is presently allowed in each RCO area. These regulations are under review and public comment is encouraged.

Area A: The No Disturbance Area, covers 0 to 25 feet from the Annual High Water Line (AHWL) and is the most restrictive, prohibiting most types of new construction. Activities allowed in this area without a Riparian Protection Permit include removal of storm debris and trash, maintenance of property and existing fences and structures, and planting of native non-invasive vegetation (approved list may be obtained from City Public Utilities or the City Urban Forester). With a permit, property owners may develop outdoor projects that do not require the use of heavy equipment, such as stairs or paths between different elevations of the property, fencing, open patios and decks, and low-impact stream crossings. Property owners may also shore up stream banks, with a permit, to control erosion of property as long as the project meets certain requirements.

Area B: The Structure Limit Area, covers 25 to 50 feet from the AHWL and delineates where construction (landscape walls, additions, accessory structures or new construction) can occur. Activities allowed in this area without a Riparian Protection Permit include all of those allowed in Area A, plus yard debris composting and new construction, such as fencing and open patios and decks with height restrictions. With a permit, property owners may replace existing structures with structures that are similar in size and type, as long as they comply with City zoning regulations.

Area C: The Buffer Transition Area, covers 50 feet to 100 feet from the AHWL. Activities allowed in this area include all development projects permitted by City zoning regulations and those activities allowed in Areas A and B, with a few exclusions such as leach fields, storm water retention ponds, detentions basins or commercial parking lots.

Property owners along all stream corridors may own pets and the ordinance does not limit pet activities in any way. The ordinance also does not prevent dog-walking in Miller Park.

100-foot Riparian Corridor

Here is a summary of what is presently allowed in each RCO area. These regulations are under review and public comment is encouraged.
WHAT HAPPENS AFTER THE ORDINANCE IS REFINED?

The Salt Lake City Council is funding the Salt Lake City Riparian Corridor Study, coordinated by the Department of Public Utilities, to analyze existing conditions of four of the City's riparian corridors. This study will be conducted over the course of two years, with two streams evaluated each year. Consultants working with Public Utilities will analyze sections of Red Butte and Emigration Creeks the first year, beginning summer 2008, and sections of City and Parley’s Creeks the second year, beginning summer 2009.

While the Jordan River is one of the corridors covered by the RCO District regulations, it is not currently included in the scope of this study because it has already been evaluated by the Utah Division of Water Quality’s Total Maximum Daily Load (TMDL) assessment and the National Water-Quality Assessment Program through the U.S. Geological Survey. The City will evaluate data from these previous studies to establish a baseline condition for the Jordan River riparian corridor.

A review of the baseline conditions of the City’s riparian corridors will help identify environmental issues such as erosion, pollution sources and other problems that may need to be addressed through restoration work along the corridors. A community-established, desired future condition plan will be developed for each stream corridor. The plans will identify specific restoration projects and rank them based on value to the stream and to the community. The study will also evaluate potential funding opportunities for stream corridor improvement projects, including grants, non-profit and public-private partnerships.

This study will allow the City an opportunity to evaluate the extent to which City facilities are impacting riparian corridors and identify solutions for controlling any contributions. The study will also consider recommendations from Salt Lake County’s recent Water Quality Stewardship Plan.

If you have additional questions or comments, please see below:

- Property owners contemplating property improvements or new construction should contact the City’s BUZZ Center at (801) 535-7700 for assistance.
- Additional information regarding the Riparian Corridor Overlay District may be accessed through the City’s Web site at http://www.slcgov.com/council/ under Upcoming Meetings, Events and Issues.
- Comments may be provided to the Council anytime during this process through the following options:
  b. 24-hour phone line at: (801) 535-7654
  c. Fax line at: (801) 535-7651
  d. Mail to: Salt Lake City Council
     PO Box 145476
     Salt Lake City, UT 84114-5476
- It would be helpful when providing information or comments to the Council to submit a short set of bullet points identifying specific concerns about the ordinance such as:
  • Issue or problem
  • Concerns/objections to the proposal
  • Aspects of the proposal you support
  • Questions you may have
  • Recommendations for solutions
  • Additional information you want to offer the Council
  • Other

Invitation to Public Open House
Please attend a public open house on June 11, 2008, from 4:30-6:30 p.m. at the City Library Main Branch, in the 4th floor conference room, to review potential changes to the RCO ordinance.