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City Rivers: The Urban Bankside Restored

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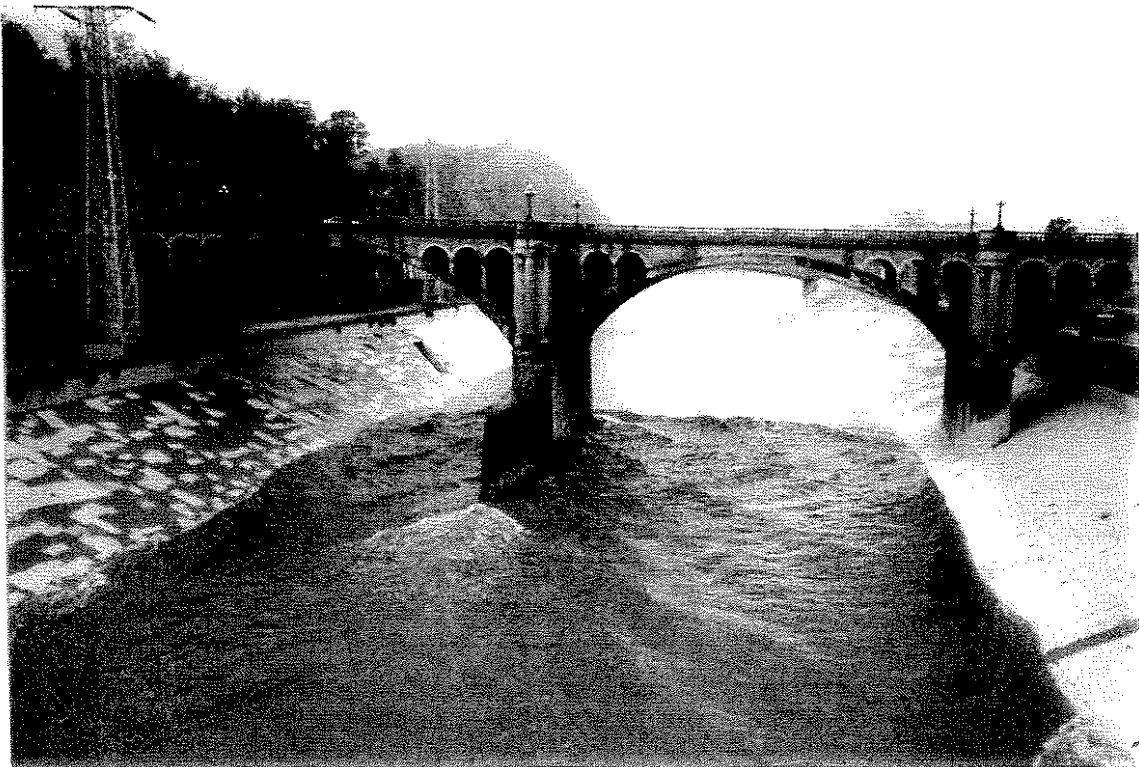
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Law & Policy Symposium

**CITY RIVERS—
THE URBAN BANKSIDE RESTORED**



Friday, November 18, 2005
Golden Gate University School of Law
San Francisco, California

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As You Sow Foundation of San Francisco

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CITY RIVERS: THE URBAN BANKSIDE RESTORED – NOVEMBER 18, 2005

SYMPOSIUM AGENDA

- 9:00 *Welcome*, Professor **Alan Ramo** (Director of the Environmental Law & Justice Clinic and Environmental LL.M Program, Golden Gate University School of Law)
- 9:05 *Introductory Remarks*, Adjunct Professor **Paul Kibel** (Director of City Rivers Symposium and City Parks Project, Golden Gate University School of Law; Of Counsel to Fitzgerald Abbott & Beardsley)
- 9:20 *Keynote Address - Nature Bats Last If She Doesn't Come First*, **A.L. Riley** (Watershed and River Restoration Advisor, San Francisco Regional Water Quality Control Board)
- 10:10 *Break*
- Panel No. 1 - Federal Urban Rivers Policy
- 10:20 *The Corps of Engineers and Urban River Restoration*, **Melissa Samet** (Senior Director of Water Resources, American Rivers)
- 10:50 *Urban Rivers Policy during the Clinton Years*, **James R. Lyons** (Executive Director, Casey Trees Endowment Fund; Lecturer and Research Scholar, Yale University School of Forestry and Environmental Studies; Former Undersecretary of the United States Department of Agriculture)
- 11: 20 *Collaborative Cleanups: Revitalizing America's Communities and Urban Rivers*, **Ellen Manges** (Policy Advisor, United States Environmental Protection Agency)
- 12:00-1:30 *Lunch*
- Panel No. 2 - Urban Rivers Policy in California
- 1:30 *Riparian Setbacks and the Fifth Amendment*, **Ellison Folk** (Partner, Shute Mihaly & Weinberger)
- 1:55 *Re-Envisioning the Los Angeles River*, Professor **Robert Gottlieb** (Director, Urban and Environmental Policy Institute, Occidental College)
- 2: 20 *Guadalupe River: Rediscovery of a Natural Resource in San Jose's Urban Core*, **David Chesterman** (Santa Clara Valley Water District)
- 2:45 *The Watershed Approach Works*, **Joshua Bradt** (Restoration Director, Urban Creeks Council of California)
- 3:15 *Break*
- Panel No. 3 - Nationwide Urban River Policy Case Studies
- 3:30 *Daylighting Salt Lake's Emtombed City Creek*, **Ron Love** (Salt Lake City Corporation)
- 3:55 *Recapturing the Anacostia for 21st Century Washington DC*, **Uwe Steven Brandes** (Vice President, Anacostia Waterfront Corporation; Former Project Manager, Anacostia Waterfront Initiative)
- 4:20 *Protecting and Restoring Urban Rivers and Streams in the Portland-Vancouver Region*, **Mike Houck** (Director, Urban Greenspaces Institutes)
- 5:00 *Closing Remarks*, **Paul Kibel**

KEYNOTE ADDRESS

Nature Bats Last If She Doesn't Come First
A. L. Riley, Watershed and River Restoration Advisor
San Francisco Regional Water Resources Control Board

The recent disaster in New Orleans reminded the nation of an influence in our midst called "nature," that impacts our lives whether we are ready for it or not. Most of our nation remains ignorant of the recent history of a string of expensive natural disasters associated with human settlement of river floodplains. Some of the more aware are familiar with these large scale examples of our collective tendency to overlook the common conflicts between land use, development practices, and natural forces. Most of us, however, are unaware of how regularly the conflicts between natural forces and development occur on the scale of a small urban lot.

This presentation, therefore, takes us through a series of "Nature Bats Last" cases, which illustrate repeated failures of conventional engineering practices on large and small scale urban and rural waterways projects. These conventional practices include stream channelization, check dams, grade control structures, concrete linings, articulated concrete structures, gabions, sheetwalls, culverting and rock riprap. Since the 1980's, a more environmentally aware engineering practice has been evolving, which recognizes the history of conventional engineering failures. We are evolving toward reaching critical mass of awareness that integrating ecological restoration principles into engineering analyses produces much better and more sustainable project performance. We have, for example, reached the point at which about 50 percent of the U.S. Army Corps of Engineers civil works budget is being allocated toward environmental restoration projects.

We do not yet have a widely accepted understanding of the possibilities for actual ecological restoration of rivers in densely populated cities with serious spatial and development constraints. Environmental design professionals have been taught, and perpetuate the misinformation, that it is not possible to really restore urban rivers because of land use impacts on the intensity and timing of storm water and flood flows and lack of adequate space for more natural urban stream channels. Cities, as well as rural areas, undeniably confront us with difficult challenges for realizing the return of functioning ecosystems. Even though options for ecological restoration in cities are very much attainable, they are not exercised. The reason for this is that environmental design professionals do not want to take the risks to innovate in urban restoration design, and few have the requisite training. Moreover, because risk adverse design professionals do not try to carry out ecological restoration in these challenging environments, no new knowledge is being generated on what is possible and how it can be done.

This situation thus requires a public response. Advocates for streams need to, inter alia, familiarize themselves with options for restoring streams in difficult urban environments. The public needs to advocate that the path of a living, sustainable urban river (along with its endangered species) has a higher priority over the protection of a few parking spaces, which tend to constitute some of the most frequent urban land use conflicts with nature.

Ultimately our urban rivers and projects to improve them only reflect what we ask for. This means that trained engineers, planners, attorneys, landscape architects and others have the responsibility to become aware of ecological restoration options for urban rivers.

Legal professionals needs to become aware that the use of conventional engineering practices that evolved in the period between the 1930's and the 1980' are outdated and in conflict with the new normative practice of restoration engineering described in current engineering documents and manuals. Issues of negligence liability in engineering practice need to be reassessed within the current normative framework. Attorneys assisting local governments and citizen groups need to become aware of options for restoration within the constraints of urban environments so that they do not inadvertently end up advocating for projects that do not contain the basic practices for project sustainability and ecologically functioning environments.

Ann L. Riley, Ph.D, is the watershed and river restoration advisor for the San Francisco Regional Water Quality Control Board. This regional board loans her to the other eight regional water boards in California, the State Water Resources Control Board, and the California Resources Agency and its departments. She is also Executive Director of the Waterways Restoration Institute (WRI), a technically oriented organization, which works on the national level to promote and sponsor demonstration stream restoration projects. The WRI has also been committed to sponsoring inner city youth education and training projects, including programs for youth conservation corps. She is a co-founder of the Urban Creeks Council of California, established the California Dept of Water Resources Urban Streams Restoration Program in 1984, now in its 24th year, and is regarded as a national expert in the field of urban river restoration. She participated in the development of a national network of urban waterway citizen organizations in the 1990's, the Coalition to Restore Urban Waters. She is author of Restoring Streams In Cities. The watershed council she was instrumental in creating, the Wildcat-San Pablo Creeks Watershed Council, Richmond, California, won the Governor's Economic and Environmental Leadership Award. She is also a recent recipient of the Salmonid Restoration Federation's Nat Bingham Restorationist of the Year Award.

PANEL NO. 1: FEDERAL URBAN RIVERS POLICY

The Corps of Engineers and Urban River Restoration
Melissa Samet, Senior Director of Water Resources
American Rivers

Both the plight and the potential of the urban river are inextricably intertwined with the United States Army Corps of Engineers (Corps). Propelled by the Flood Control Act of 1936, which established a nationwide policy to involve the federal government in flood control activities, the Corps began to plan and implement flood control projects on urban and rural rivers across the country. Many of these projects were carried out from the 1940s to the 1960s and involved channelizing urban rivers and encasing them in concrete to speed water flow past developed areas. Much was lost in the process: urban character, green space, healthy waters, and fish and wildlife habitat. And often, flooding problems downstream were exacerbated.

While Corps flood control and navigation projects have produced certain economic benefits for the nation, they also have wreaked havoc on the ecological health of the nation's rivers and the species that rely on them. Corps projects have been cited as a major cause of the dramatic decline in North America's freshwater species, which are disappearing five times faster than land-based species.¹ Many of the projects that have contributed to this harm have never produced the benefits promised by the Corps.

Other Corps projects have increased the risk of catastrophic flooding. A stunning example of this can be seen in the recent devastation of New Orleans by Hurricane Katrina. Flood control levees in the city that were designed and built by the Corps failed despite the fact that the State of Louisiana had received more funding for Corps projects over the past five years than any other state, and evidence continues to mount that the failures were due to poor design and construction. A little used waterway constructed and stubbornly maintained by the Corps – the Mississippi River Gulf Outlet – funneled the power of the storm surge toward the city. And over-engineering of the Mississippi River has caused dramatic losses to Louisiana's coastal wetlands that could have dampened the power of Katrina's storm surge.

While approaches to addressing water resource challenges have changed dramatically in the past decades, little such progress can be detected at the Corps. The progress that has been made has often been forced upon the agency, and fundamental reforms are still needed to propel Corps planning into the 21st century. The Corps nevertheless remains a central player in the future of urban rivers. States, cities, towns, and citizens should be aware of the potential ecological and economic pitfalls associated with Corps planning for urban – and other – river projects.

As with all federal projects, environmental laws provide key opportunities for ensuring that ecological and neighborhood priorities are reflected in Corps project planning. However, to effectively influence a Corps project – urban or rural – it also is important to understand the problems affecting the agency and the political powers that influence it. This presentation will provide a brief overview of the Corps, and discuss strategies for dealing with Corps projects drawn from many years of experience with the Corps' planning process, the workings of the agency, and the politics of Corps projects.

¹ Ricciardi, Anthony and Rasmussen, Joseph B., "Extinction Rates of North American Freshwater Fauna"; *Conservation Biology*; 13 (5), October 1999, at 1220.

Strategy 1 – Recognize The Problem and Proceed with Caution: The Corps’ planning process is plagued by a host of well recognized problems that ultimately will be solved only through passage of comprehensive legislative reforms. Until that happens, the Corps likely will continue to plan and construct ill-conceived and costly projects that threaten the ecological health of urban rivers. Until such reforms become law – and until that law is strictly complied with – states, local governments, community groups, conservation and taxpayer organizations, and citizens will need to work aggressively to influence Corps project planning.

Communities seeking help with urban river projects should proceed cautiously in seeking the Corps’ involvement. Corps planning often produces projects that are far less than ideal – and in some instances produces projects that simply should never be built. Unfortunately, it can be extremely difficult to stop even a particularly egregious project once it gains the support of a powerful constituency. On the flip side, it can be equally difficult to actually construct a project planned by the Corps, even if that project is ecologically sound and fully supported by the local community. This is because many hundreds of Corps projects can be vying for a limited amount of funding at any given time.

Corps projects also are often very costly and actual costs can often outstrip original estimates at an astonishing pace. This affects local communities because Corps projects must have a local project sponsor who has agreed to pay a percentage of the project’s total – and not estimated – costs. For some smaller scale projects it may be less expensive for a city or town to pay for the project outright than to pay the local cost share requirement of the Corps’ proposed plan.

Strategy 2 - Bring Good Projects to the Corps: Left to its own devices, the Corps has shown that it is unlikely to come up with plans for urban rivers that are ecologically sound or that meet the goals of a healthy, accessible, and vital riverfront. As a result, communities may want to develop their own plans and work with the Corps to ensure that the community’s preferred plan is implemented. The Napa River project in California, which is highlighted by the Corps as one of its most successful urban river restoration efforts, was developed in this way. Community members should not leave planning or planning oversight responsibilities in the hands of the local project sponsor as many environmentally destructive projects have been implemented with the full support of the local project sponsor. Communities may want to hire outside planners and consultants to assist in plan development.

Strategy 3 – Actively Engage State and Other Federal Agencies: States and other federal agencies can play a key role in Corps project planning, and in some instances, can stop particularly ill-conceived projects altogether. Numerous legal authorities allow or require the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service (FWS), NOAA Fisheries, and the states to comment on Corps projects. In some instances, the states or federal agencies can stop a Corps project outright – though this typically happens in only the rarest and most egregious of circumstances. It is important to work closely with state and federal agency staff to make sure they understand the full implications of a Corps plan, and to provide public support for states or agencies willing to work aggressively to improve Corps projects.

Strategy 4 – Promote Expert and Citizen Project Review: Every Corps study should be fully and carefully reviewed by federal and state resource agencies, independent experts (including legal experts), and citizens. Voluminous planning documents and significant study costs should not lull reviewers or the public into believing that a Corps study is necessarily technically sound, based on the most up to date science and data, or legally sufficient.

Reviewers will need to carefully analyze all key assumptions, models, and data, and should examine the underlying studies and documents relied on by the Corps whenever possible. Reviews also should take special care to identify key issues that have not been addressed in a Corps study. For example, Corps environmental reviews often ignore impacts on entire classes of species (amphibians are a prime example). The Corps also has a penchant for ignoring cumulative impacts, impacts from re-suspending and disposing of toxic sediments, project promotion of increased flooding downstream, and a host of other potentially significant impacts. Experts may be needed to fully analyze key elements of Corps studies, including particularly the Corps' hydrologic analysis and benefits calculations.

Strategy 5 – Utilize The Full Range Of Options To Improve Projects: Congress, the media, and the courts can be valuable sources of assistance in influencing Corps projects. Members of the United States Congress play a key role in every Corps project. They can obtain or prevent authorization of a project, obtain or prevent funding for a project, and obtain highly respected outside reviews of specific projects. Communities and citizens should discuss key problems with Corps studies with their Members of Congress early and often. Media coverage of key planning problems and potential project impacts also can be extremely useful in highlighting the need for project improvements. Coverage of key flaws or public opposition can also be very useful in convincing Members of Congress to pay careful attention as the planning process proceeds. Where legal challenges are justified, they can be used to stop, redirect, or delay project implementation.

Melissa Samet is the Senior Director of Water Resources at American Rivers where she directs American Rivers' Army Corps Reform Campaign, which seeks to fundamentally change the way the U.S. Army Corps of Engineers manages our nation's rivers and wetlands. Melissa, who also co-chairs the national Corps Reform Network, has more than a decade of experience in working to reform Corps of Engineers projects, policies, and practices and the laws that guide the Corps' efforts. Prior to joining American Rivers in 2001, Melissa worked for six years at Earthjustice where she was a litigating attorney and Director of Earthjustice's Marine Biodiversity Program. Through those dual roles, Melissa directed litigation-driven advocacy campaigns to reform the Corps of Engineers, and to protect marine resources in the Gulf of Mexico and Hawaii. Prior to joining Earthjustice in 1994, Melissa spent eight years as an attorney with Shearman & Sterling, where her practice focused on federal securities law, antitrust, and international banking litigation. Melissa received her J.D. from the New York University School of Law, and holds a B.S. in Wildlife Biology from the University of Vermont.

Urban Rivers Policy during the Clinton Years¹

James R. Lyons, Executive Director of Casey Trees Endowment Fund, Washington, DC;
Lecturer and Research Scholar, Yale University School of Forestry and Environmental Studies

My purpose, today, is to discuss the role of the Clinton Administration, in general, and that of the Department of Agriculture (USDA) in particular in urban rivers restoration policy. To do so, I will briefly discuss why this investment in urban rivers is so important, why USDA's contributions are so significant, what we – in the Clinton Administration – attempted to achieve, and, to the extent we can address it, why some recognize the value in investing in river “banks” that others still seem to miss.

By way of background, I need to emphasize that my observations about the evolution of policies affecting urban rivers, or for that matter, rural rivers or larger landscapes are driven by my experiences as a staff member to a congressional committee for nearly six years and then as a member of the Clinton Administration for the succeeding eight years. That is to say, that while there exist many interesting theories about the policy making process, the factors that influence policy formulation and policy changes, my views on this are less “academic” and “traditional” than they are based on first hand experience. I place great weight on both personal and professional experiences in how I teach natural resource policy in my class at Yale. So, what I offer today is more a personal reflection on urban rivers policy and my involvement in the development of that policy than it is a textbook analysis of what ultimately became Clinton-era urban rivers policy.

Why Invest in Urban River Restoration?

All of you here obviously recognize the value of investments in natural resource programs in metropolitan areas – particularly in urban rivers. For me, the benefits of these investments can be narrowed down to a few key considerations.

First, nearly 90 percent of Americans resides in metropolitan environs. Common sense would argue for investing in the lands and waters that directly affect the largest portion of the population.

Second, a large body of expertise exists that has vast experience in addressing the natural resource issues affecting wildlands and rural resources. This same expertise, with proper guidance and experience, has the capability to provide substantial improvements in the quality of life in metropolitan areas. Residents of cities and suburbs, by in large, have little knowledge of the simple things they can do to restore waterways and riparian areas, protect open space, and improve neighborhood aesthetics. With a small investment, urban forestry and conservation programs can bring individuals and communities into closer contact with nature and their environment. In so doing, the natural resource community can help reconnect communities with nature in the neighborhoods in cities and suburbs where they reside.

¹ The views and opinions expressed in this paper are solely those of the author and do not represent the official views of the Casey Trees Endowment Fund or Yale University.

A third reason for investing in urban rivers and in metropolitan natural resource programs in general is simply to expand public understanding of the virtues of investing in environmental and natural resource programs -- to build the base of support needed to sustain our programs and budgets. In times of tight budgets, natural resource programs are often at risk unless a constituency exists to support them. Urban natural resource programs and the social, economic and ecological benefits they can provide can do much to build that constituency and that base of support.

Fourth, investments in urban natural resource programs are a fiscally-sound means of reducing costs to communities in many ways. For example, investments in wetland restoration and green infrastructure can help reduce storm water runoff, improving water quality and reducing water treatment costs borne by taxpayers. Protecting open space and developing greenways and recreation corridors can provide opportunities for enjoying metropolitan environments, enhance real estate values, attract new economic investment and aid in rehabilitating previously contaminated and unsightly urban wastelands.

Fifth, metropolitan natural resource programs and restoration projects can generate employment. For those in need of jobs and those in the private sector with the foresight to capitalize on public sector investments in river restoration to provide jobs, the employment and training opportunities, particularly in communities of traditionally high unemployment, are great.

Finally, investment in the lands and waters associated with urban rivers is simply the right thing to do -- correcting years of injustice and inequity in natural resource program funding often directed to more remote or rural areas. In fact, the natural resources professions are often guilty of serving a rather narrow segment of a very diverse population. If we are ever to stand up to our commitments to provide more equity in our programs and to seek broader racial and ethnic balance in our workforce, we must begin by improving our service to metropolitan areas.

Although these and other benefits have served as the catalyst for progress on the urban ecological restoration front, a number of key roadblocks remain.

The natural resource professions have often been guilty, with a few exceptions, of orienting the training of natural resource professionals to rural and wildland issues. Degrees in forestry, fish and wildlife management, ecology, or watershed management are still so firmly rooted in non-urban landscapes that they leave little opportunity to promote an understanding of the role of nature in cities.

In addition, natural resource management professionals themselves generally have a rural orientation and often come from non-metropolitan areas. So why would they want to orient their careers toward resource management issues in metropolitan areas? Except for those of us who grew up in places like New Jersey -- imagine that, New Jersey -- natural resource professionals generally want as little to do with people and urban settings as possible.

It is unfortunate that these handicaps impede progress in developing natural resource programs for metropolitan areas, but they continue to do so.

We ignore the cities, urban waterways and associated natural resources at our peril. Unless and until we demonstrate to the nearly 90 percent of the Americans who reside in metropolitan areas that our programs are essential to their well-being -- whether investments in urban landscapes, in wilderness or endangered species or watershed protection -- we will find it increasingly difficult to sustain public investments in natural resources of an urban and rural nature. In fact, recent federal natural resource agency budgets illustrate this point well.

Why USDA?

I feel compelled to explain, as I did often during my tenure as USDA Under Secretary for Natural Resources and Environment, why USDA has and can play such a significant role in improving urban rivers. USDA is about farms and livestock, and forests and food stamps, right?

Well, a little known fact is that fully half of USDA's employees, at least during my tenure at the Department, are employed in natural resource-related programs and pursuits. They work primarily for the Forest Service and the Natural Resources Conservation Service (formerly the Soil Conservation Service), my domain while at USDA. And, the activities and expertise of these two agencies frankly dwarf the technical capabilities and resources of all the urban-oriented agencies in the Department of the Interior, the Department of Commerce, and the EPA combined. Again, at least they did when I was at USDA.

In general, USDA has a significant role in affecting the nation's water resources in both quantity and quality. For example, most of the potable water supplies for cities west of the Rocky Mountains comes from national forests. The forests of the Sierra, among the oldest in the nation, were created first to preserve these valuable watersheds. Of course, as you have come to understand here in California, agriculture is also a significant user of water and a source of contamination of water supplies. Sedimentation and polluted runoff from animal and cropland agriculture are significant sources of pollution in the San Francisco Bay and its tributaries. As such, the Natural Resources Conservation Service spends much of its time and effort attempting to mitigate and reduce non-point sources of water pollution from agricultural sources.

Given this significant role, USDA actually partnered with the EPA in constructing and implementing President Clinton's Clean Water Action Plan, which focused heavily on the second generation of water quality problems, those associated with non-point source pollution.

USDA also played a lead role in constructing two significant initiatives of the Clinton Administration that brought important focus to urban river conservation efforts: the American Heritage Rivers Program and the Urban Resources Partnership.

American Heritage Rivers

Most of you are aware, I'm sure, of President Clinton's American Heritage Rivers initiative. This effort was one of the centerpieces of the President's 1997 State of the Union Address, and was launched by an Executive Order on September 11, 1997.

The administration promoted a community-based, collaborative program, designed to encourage communities to work together to nominate rivers for consideration for heritage designation. The

intent was a grassroots program, driven by community vision and community leadership. The limited federal role was to support and encourage that leadership and vision with assistance in developing river protection strategies, in cost-sharing on projects intended to improve heritage rivers as well as other rivers, not so designated but deserving of the support of the broader community -- including the resources and expertise of the federal government.

As evidence of the Republican Congress' lack of support for river conservation work, the initiative was under attack almost immediately following its unveiling. Members of Congress -- in both the House and the Senate -- challenged the effort, driven, in part, by misunderstanding and misperceptions regarding the purpose of the program and its value to the communities that might choose to participate. Although private property rights was the stated reason for opposing the initiative, politics was also clearly at the core of the opposition.

I co-chaired the interdepartmental committee that oversaw the development of the initiative, the selection of heritage rivers, and the implementation of strategies to support local river restoration and protection strategies. Others involved in the program included:

- The Secretary of Defense,
- The Attorney General,
- The Secretary of the Interior,
- The Secretary of Agriculture,
- The Secretary of Commerce,
- The Secretary of Housing and Urban Development,
- The Secretary of Transportation,
- The Secretary of Energy,
- The Administrator of the Environmental Protection Agency,
- The Chair of the Advisory Council on Historic Preservation,
- The Chairperson of the National Endowment for the Arts, and
- The Chairperson of the National Endowment for the Humanities, and
- The Chairperson of the Council on Environmental Quality.

The American Heritage Rivers program still survives under the auspices of the EPA. Fourteen rivers now have American Heritage River designation. However, I cannot speak of the extent to which technical and financial support is still afforded to these rivers from their federal agency partners.

The Urban Resources Partnership

As I noted earlier, during the Clinton years, contributions to urban conservation and, in particular, urban river restoration, of the Forest Service and the Natural Resources Conservation Service were probably equal to or greater than those provided by nearly all other federal natural resource agencies. That is not to say that the National Park Service through its Rivers, Trails and Conservation Assistance (RTCA) Program or the National Marine Fisheries Service (NMFS) through fish habitat restoration efforts weren't having an impact. But, the problem was that as a result of limited collaboration and coordination among these agencies, the impacts of their limited resources were even further reduced.

Observing this, I invited several colleagues to join me in pooling resources and expertise to further enhance our urban conservation efforts. The result was the Urban Resources Partnership (URP). Through URP, the Forest Service, Natural Resources and Conservation Service, and the Extension Service in the Department of Agriculture joined forces with the Fish and Wildlife Service and National Park Service in the Department of the Interior and the Environmental Protection Agency to work to benefit cities, their communities and their rivers.

The theory behind the partnerships was simply this. Several federal natural resource agencies have a presence in metropolitan areas. However, this presence and the finances to support it is often limited. Much more could be gained if the agencies simply worked together -- pooling their limited dollars, eliminating redundant services, and capitalizing on the strengths of each others' expertise.

Four cities were selected for this pilot effort -- New York, Chicago, Atlanta, and Seattle. In each city, local representatives of the federal agencies were brought together to form a local partnership council -- a board of directors -- to design and implement the program. Resources were limited, so the Department of Agriculture allocated \$500,000 to each city to serve as seed money for grants to be let by each local council to help neighborhoods and communities help themselves in these four metropolitan areas. Each city was provided with the resources by the Natural Resources Conservation Service to hire a coordinator to administer the program.

Each of these initiatives was truly a partnership effort. Although USDA put up the money to initiate the project, each non-USDA partner was asked to support an employee in each city who could dedicate time to providing technical assistance and guidance as a member of the local board of directors. As the program evolved, each agency was asked to provide a portion of the funds needed to support the local coordinator -- about \$20,000 per agency, per city. I should also note that despite the large differential in funding, each agency was granted an equal voice on the local council and equal say in the decisions each partnership council makes.

Each council was empowered to run its own partnership as a corporation might be run by its board of directors. In promoting these partnerships, Washington, D.C. overhead and interference has been kept to a minimum (a factor that was later used against the initiative). Accountability rested with the local partners and they were given wide latitude to implement the conservation program that they -- as a partnership -- believed would best serve their community and the natural resources they share.

We learned a great deal through URP. Not only did we improve our working relationships and but the agencies forged new partnerships with other state and local agencies and developed a new appreciation for the role of community groups, non-profit organizations and local volunteers in providing conservation leadership.

Most importantly, in the metropolitan areas in which they are operated, they could see progress, and that they were a making a difference.

The ultimate goal was to develop the capacity, among federal, state, and local agencies, in concert with community groups and local conservation leaders, to promote better conservation and better land stewardship. More important than any project we initiated or any program we funded, we believed that if we could learn to work together -- to overcome the jealousies and the turf battles -- to benefit from each other's strengths rather than exploit the other's weaknesses -- then we could establish a lasting foundation for community-based conservation programs.

Urban Resources Partnerships provide varied and valuable examples of the benefits of improving public/private partnerships for urban conservation. For example, in Chicago the partnership allocated all of its \$500,000 to community grants for program as diverse as restoration of riparian habitat to environmental education. In New York, funds were granted to community groups for urban gardening and park restoration projects. In Atlanta, the partnership worked closely with the Atlanta regional planning office on coordinated strategies for community assistance. And, in Seattle URP projects benefited a wide range of environmental programs.

At the height of its popularity, thirteen cities or regions had established URP programs. Their work is summarized in a difficult to find accomplishment report published by the USDA Forest Service (FS-688, September 2000).

A large number of river restoration and rehabilitation projects were funded by URP during its existence. Some of the more significant projects included:

- In New York City, the Bronx River restoration project and the efforts of the Bronx River Working Group were supported by an initial award of \$180,000. Matching funds more than doubled that investment and led to a partnership that included Cornell University extension, the New York State Department of Environmental Conservation, the US Department of Housing and Urban Development, EPA, the National Park Service, and the USDA Forest Service and Natural Resources Conservation Service.
- In Chicago, partnerships led to investments in the restoration of the Chicago River and the establishment of a canoe livery to provide south-side residents with access to the river along one of its most highly industrialized areas. Two projects, the Gompers Park Wetlands restoration and the Beaubien Woods-Flatfoot Lake restoration helped local residents restore wetlands and water quality and create new fishing opportunities for disadvantaged youth. Workshops for teachers were conducted to integrate the wetlands restoration effort into the education curricula of Chicago area

schools. Friends of the Chicago River played a lead role in working with local, state, and federal agencies in these urban ecological restoration activities.

- The greater Boston Urban Resources Partnership (or BURP) joined forces with the Chelsea Creek Action Group to promote restoration of one of the most abused waterways in Massachusetts – an area that EPA once designated the State’s second-most polluted waterway. Nearly 40 local, city, state and federal partners participated in BURP restoration efforts.
- In Atlanta, federal URP funds aided in continuing efforts to restore the Chattahoochee Riverway. Projects included removal of invasive plant species, stream bank stabilization and aquatic vegetation restoration, as well as environmental education efforts.
- In Seattle, the Puget Sound URP (or PURP) worked on riparian, flood plain, and wetlands enhancement projects throughout the Puget Sound watershed, including the Duwamish Youth Initiative, interpretative signage along Dumas Bay, and conservation efforts in Snohomish, Longfellow, and Spanaway tributaries to the sound.
- In Los Angeles, work with the City of Los Angeles Environmental Affairs Department, EPA’s regional water division and the National Park Service led to nearly 90 projects, a total of \$1.2 million in federal funds, matched by over \$2 million in funding and in-kind contributions for a wide range of projects including several that focused on the LA River and growing community awareness of the river and related ecological restoration efforts.
- Finally, in San Francisco, conservation grants through URP supported expansion of the city’s Adopt-A-Watershed program, urban tree planting and natural area restoration projects.

During its lifetime, URP grew from a pilot program in four cities to an active, grassroots, outreach and empowerment program in thirteen. The investments made sparked lasting partnerships and planted the seeds for self-sustaining projects like the Chicago Wilderness and the Bronx River Restoration Project.

Did We Make a Difference?

These investments in urban rivers and, more broadly, in urban ecological restoration projects were really investments in building the capacity of communities to address the environmental ills of their own communities and neighborhoods. What was clear was that a little money, some technical assistance, and the initiative of community leaders was a powerful formula for successful stewardship of urban lands and waters.

Unfortunately, the same commitment to urban conservation demonstrated by the Clinton administration, and illustrated by programs like the American Heritage Rivers program and the Urban Resources Partnership, has not been made by the current administration.

Although American Heritage Rivers continues, the extent of commitment and investment in programs and activities to support the rivers has dwindled. But, at least the program remains.

URP suffered a different fate, as Republican Congressional leaders took after the program and, unlike AHR, ultimately succeeded in killing it. What remains of the programs and activities of URP is the result of the continued commitment of some in the agencies who see the value in urban conservation and of connecting urban residents to their waterways and nature.

USDA funding for urban related activities has declined since the change in administrations. As evidence, funding for the Forest Service's Urban and Community Forestry program has gone from a high of \$36 million in Fiscal Year 2003 to \$27 million in FY 2006. (When I first took office at USDA, funding for this program was at approximately \$7 million.) While urban forestry funding has declined in recent years, investments in fire-related programs, including timbering and salvage logging to reduce fuels, has escalated. Funding for urban conservation activities in the Natural Resources Conservation Service is difficult to near impossible to calculate.

One can't help but ask, "Why did the Clinton administration see the value in investing in urban conservation and river restoration while others, apparently, do not?"

A simple response is, "We got it and "they" did not (or don't)."

That's probably a fair and honest assessment of the differences between Bush family values (so to speak) when it comes to urban conservation and the values of those of us who have been involved in urban conservation from the start.

Simply stated, the people in positions of power – who were in the position to promote urban rivers and urban conservation work during the Clinton era – cared about American cities and urban resources. And, since they were in these positions, they were able to use their discretionary powers and political influence to direct interest, resources, and dollars to urban conservation. I really think that it's that simple. I offer myself, and one other individual, as evidence.

Why my interest in urban rivers?

I grew up in urban America – in northern New Jersey. The urban rivers I knew were the Hudson, the Hackensack, and the Passaic. They showed the signs of their age. They suffered from the contributions to commerce that they've made over the years. It leaves a lasting impression on a child when he can't swim or fish in the rivers of his childhood.

But, fortunately, I wasn't far from the countryside of western New Jersey and southern New York State -- from the Delaware, the Schoharie, and the Ramapo. These were the rivers where we could recreate -- where we could escape from urban environs.

So I experienced how rivers run through our lives – how the rivers and streams and all of our natural resources are the lifeblood of our cities and communities up and down the watershed.

From my experiences, I know what a river – especially a clean river – means to the sense of community, to the economy, the quality of life, and self-esteem.

That first hand experience, growing up in this urban/rural interface, shaped my view of the environment and my interest in affecting changes in that environment – for the positive – when the opportunity was at hand to do so.

Now, before you jump to the conclusion that this explanation for the Clinton administration's investment in urban rivers is too simplistic (or, perhaps too arrogant on my part), I want to caution that I do not claim to take credit for all of what the administration did. Many people were involved, and many others saw the need and the power of investing in urban waterways. Certainly, the American Heritage Rivers program was not my doing. But, I did enthusiastically dive into the program and assumed a leadership role once the President announced it in a State of the Union address. Others would have to explain to you the genesis of this program. Its origins are largely still a mystery to me.

But, as for the programs and activities of USDA and the investments made through URP, I did promote them and, in some cases, initiate them. And, in some cases, like-minded people joined in. In others, people had to be convinced of the wisdom and the value of redirecting resources to urban rivers. In still others, they had to be coerced into participating.

But, in most instances, once involved in these urban activities, they were fully vested in and often became advocates for URP and urban conservation efforts in general.

To expand my sample of one, though, as evidence of the fact that the orientation and interests of leaders is a key determinant in setting policy, I offer the example of the Anacostia Watershed Initiative in Washington, DC.

As you will hear from Uwe Brandes during this conference, the Anacostia River is a truly degraded and impaired urban waterway. Yet, it now holds great promise to become the catalyst for tremendous social and economic changes for the communities it touches in the Nation's Capital. And, the impetus for this new focus on the Anacostia, is the interest and vision of the city's Mayor, Anthony Williams. Why is the Mayor so interested in the Anacostia River? As he likes to relay himself, he is fond of rivers and of nature in general. Tony is an avid birder, a tree "nut", and a student of nature and the outdoors. He likes to tell stories of childhood travels from his Los Angeles, California birthplace to the national parks and forests of the Sierra. And, he is an avid canoeist. In fact, he has a canoe in storage at the Anacostia Community Boathouse on the Anacostia River (which he laments that he hardly ever gets to use).

And so, it was Mayor Williams who helped to create the vision of the Anacostia (Washington DC's "other" river) as a clean and vibrant part of the city's bright future.

So, leadership makes a difference. Values matter. And, for those of us who are advocates for urban rivers and urban conservation, it is unfortunate that the Bush administration's leadership doesn't share that same passion and see the same value in urban rivers and urban conservation. I say this based upon the limited focus that has been paid to urban rivers in current policy and program budgets. And, I should add that the administration's philosophy of reducing the role of government in environmental and conservation efforts probably works to the detriment of urban

river cleanup, to the extent that government agencies and programs are the necessary catalyst for urban river restoration. I grant that this is a debatable point, but, to date, market forces have not been sufficient to spur significant private sector investment in the clean-up of the Anacostia River. And, I doubt that they will be in the foreseeable future.

Conclusion

I will close by simply stating that there are clear and demonstrable benefits in investing in urban river restoration. Unfortunately, however, unless compelling arguments can be made for those investments or individuals who share an interest in and value urban waterways are in positions to promote those investments, little is likely to change.

This may change over time, particularly as initial investments bear fruit and the private sector comes to realize the benefits of investing their own resources in river cleanup and waterfront restoration. But, we haven't seen it yet, at least not in the places with which I am familiar.

So, we must continue to make the arguments, to build the justification and to attempt to quantify the benefits of reinvesting in our urban waterways if progress is to be made. Some have become quite articulate at making those arguments. Many of the people at this conference have made it their life's work. Let us hope, however, that it doesn't take a lifetime for our urban rivers to come back to life. Through enlightened leadership, stronger collaboration, greater investment and the construction of a compelling argument for this work, I hope our successes in urban conservation and urban river restoration will grow.

Thank you for the opportunity to join you this morning.

James R. Lyons is currently the Executive Director of the Casey Trees Endowment Fund in Washington, DC and a Lecturer and Research Scholar at the Yale School of Forestry and Environmental Studies in New Haven, Connecticut. At Casey Trees, Jim leads the organization's efforts to maintain, restore and enhance the tree canopy of the Nation's Capital. At Yale, he teaches a course in natural resource policy. For eight years in the Clinton Administration, Jim was USDA Under Secretary for Natural Resources and Environment. In this position, he was responsible for USDA forestry, conservation, and environmental programs with oversight of USDA's Forest Service and Natural Resources Conservation Service (NRCS). During his tenure, Jim helped to reshape the nation's forestry and conservation policies and led major reforms in the leadership, policies and management of both the Forest Service and the NRCS. As a result, the NRCS emerged as the leading federal partner in promoting conservation of the nation's private lands and expanded its efforts to protect clean water and fish and wildlife habitats. Jim was a principal architect of President Clinton's Northwest Forest Plan to conserve old-growth forests and promote sustainable forestry. He helped lead USDA efforts on the Presidential initiative to protect remaining national forest roadless areas, to reform management of the Tongass National Forest, and to establish new policies to guide future national forest planning and management. In addition, Jim served as co-chair of the President's Clean Water Action Plan task force and the American Heritage Rivers advisory group and promoted urban forestry and conservation efforts. From 1987 to 1993, he was a staff assistant with the House Committee on Agriculture and played a key role in formulating the conservation and forestry titles of the 1990 Farm Bill. Jim also helped to create the first farm bill Energy Title in 2002.

Lyons has served as agricultural advisor to former Congressman Leon Panetta (D-California) and as the staff director for the Subcommittee on Forests, Family Farms, and Energy, Committee on Agriculture. Prior to joining the House Committee on Agriculture, he served as director of Resource Policy for the Society of American Foresters and was a program analyst with the U.S. Fish and Wildlife Service, U.S. Department of the Interior.

Collaborative Cleanups: Revitalizing America's Communities and Urban Rivers

Ellen Manges, Policy Advisor
U.S. Environmental Protection Agency

This presentation will review lessons learned from the Urban Rivers Restoration Initiative (URRI) and from the One Cleanup Program (OCP) pilot projects that are being conducted by the United States Environmental Protection Agency (EPA) and other Federal, State and local cleanup programs.

Rivers have long been an essential element in the American urban landscape. Urban rivers have provided power to our factories and avenues for shipping and commerce. Urban rivers have provided recreational opportunities and, in many cases, have been integral to the very identity of our cities. Urban rivers also carry the legacy of our industrial history, which has left behind contaminated sediments, degraded water quality, and lost habitat. As cities seek to transition to new economic realities, this legacy often stands in the way. The scientific and engineering challenges associated with assessing risk and cleaning up contaminated rivers are costly and, at times, exceedingly complex. These challenges, moreover, are often exacerbated by the existence of multiple cleanup authorities and competing requirements.

In July 2002, the EPA and United States Army Corps of Engineers (USACE) entered into a Memorandum of Understanding (MOU) to help address these challenges and facilitate cooperation between the two agencies with respect to environmental remediation and restoration of degraded rivers and the protection of public health, economic sustainability and community vitality. The MOU seeks to coordinate remedial, water quality, and environmental restoration activities under the Clean Water Act (CWA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and the various Water Resource Development Act (WRDA) authorities. Through the MOU the two agencies established the URRI and designated eight demonstration pilot projects to coordinate the planning and implementation of urban river cleanup and restoration.

In 2003, EPA launched the One Cleanup Program (OCP) to help ensure that the activities, resources, and results of EPA's various cleanup programs are effectively coordinated and communicated to the public. As part of the OCP, EPA launched several area-wide pilot projects that were chosen to demonstrate cross-program coordination and consistency in cleaning up large, complex contamination problems involving multiple sources and sites.

In 2003, EPA also created the Land Revitalization Agenda to integrate revitalization into EPA's cleanup programs, establish partnerships, and help make land revitalization part of EPA's organizational culture. By 2004, EPA established the Land Revitalization Staff (LRS) Office to implement the Land Revitalization, URRI and OCP initiatives.

Urban river restoration and other large scale cleanup projects can involve a complex mix of laws, regulations, and competing environmental and economic goals. Considering this mix, the URRI and OCP Area-wide pilots found that addressing multiple, interconnected sites in a comprehensive manner, and coordinating multiple agencies and/or programs, poses a challenge. The pilots, however, also found that the revitalization context is rife with opportunities for

leveraging stakeholder resources and for tapping existing networks to achieve more cost-effective and timely cleanups.

The URRI and OCP Area-wide pilots demonstrate that an increased focus on collaboration and coordination among agencies and stakeholders can yield:

- Better coordinated, more consistent cleanups
- Better alignment of cleanup and revitalization objectives
- More efficient use of cleanup funds
- Stronger relationships that facilitate future cleanup and revitalization

Ellen Manges works in the office of the Assistant Administrator for EPA's Office of Solid Waste and Emergency Response where she coordinates the One Cleanup Program, one of OSWER's top initiatives. This initiative promotes and enhances coordination, communication and measurement of EPA's cleanup program activities. Ellen started with EPA in Region 9, San Francisco where she served as a Superfund Project Manager and Special Assistant to the Regional Administrator. Ellen also worked for 10 years as a corporate manager for two major industrial companies, managing their environmental liabilities and cleanups. She has a degree in geology from the University of Pittsburgh and completed her graduate work in public management at Carnegie Mellon University.

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PANEL NO. 2: URBAN RIVERS POLICY IN CALIFORNIA

Riparian Setbacks and the Fifth Amendment
Ellison Folk, Shute Mihaly & Weinberger

Regulatory land use controls often play an important role in protecting riparian corridors, streams and wetlands. Setbacks, which limit development or land disturbance within a certain distance from the protected resource, are one of the most commonly used land use tools to protect riparian resources.

The use of development setbacks has been upheld by the courts on several occasions. In Dolan v. City of Tigard, 512 U.S. 374 (1994), the United States Supreme Court evaluated the City's prohibition on development in the floodplain adjacent to a creek (check this) and found the regulation served a legitimate public purpose in reducing the amount of impervious surface coverage and reducing potential flood impacts. Similarly, in Big Creek Lumber Co. v. County of San Mateo, 31 Cal. App. 4th 418 (Cal. Ct. App. 1995), the California Court of Appeal upheld the use of a 1000 foot buffer between timber harvesting and residential zoning districts. The court specifically recognized that setbacks and similar buffers are among the tools local governments may use in the interest of sound community planning. Because the propriety of the 1000-foot zone was a fairly debatable question, upon which reasonable minds could differ, the court concluded that the county's decision was not arbitrary, unreasonable, or substantially unrelated to public health or safety. See also, Ehrlich v. City of Culver City, 12 Cal. 4th 854 (Cal. 1996) (noting that setbacks are common land use tools).

Development setbacks serve several legitimate governmental goals with respect to the protection of riparian resources, including limiting land disturbance that could result increased sedimentation, filtering pollutants and reducing stormwater runoff, and prohibiting the use of potentially harmful substances, such as pesticides or fertilizers in areas that are immediately adjacent to stream corridors. Therefore, setbacks can be used as part of storm water pollution prevent plans required by Clean Water Act and State General NPDES permit regulating discharge of stormwater; they can protect wetlands and further goals of Clean Water Act §404, which regulates development activity on wetlands, and they can serve to mitigate environmental impacts as required by California Environmental Quality Act.

Although setbacks are clearly viewed as legitimate regulatory tools, agencies should also document the basis for its setback requirements. Such documentation can take the form of a staff report documenting the need for a setback ordinance, general plan policies emphasizing the importance of protecting waterways, and documentation of development impacts on riparian resources in the environmental review for a project. In general, setbacks should not be imposed

on an ad hoc (i.e., project by project) basis, but should be based on legislatively-established criteria. Ideally, a jurisdiction's general plan will identify the need for development setbacks, and the jurisdiction will have adopted a stream protection ordinance that includes setback requirements. The amount of the setback may vary depending on the sensitivity of the resource or the intensity of use proposed, but some legislative authorization for imposition of a setback is recommended.¹

The primary legal difficulty related to the use of setbacks arises where they substantially reduce the value of property. As interpreted by the courts, the takings clauses in the United States and California constitutions prohibit governments from denying all reasonable beneficial use of land without providing just compensation. In general, setbacks will not run afoul of this provision because they do not prohibit all development, they simply limit the area of development a site. Although they may reduce development potential and therefore property value, courts have upheld regulations that resulted in substantial diminution in property value. Hadacheck v. Sebastian, 239 U.S. 394, 405 (1915) (no taking despite diminution in value from \$800,000 to a maximum of \$60,000, and property could not be used for any purpose permitted under city's ordinance); Haas v. City & County of San Francisco, 605 F.2d 1117, 1120-21 (9th Cir. 1979), cert. denied, 445 U.S. 928 (1980) (no taking found where value of property was diminished from about \$2,000,000 to about \$100,000); Del Oro Hills v. City of Oceanside, 31 Cal. App. 4th 1060, 1081 (1995) 1081 (“[e]ven where there is a very substantial diminution in the value of land, there is no taking.”).

In some circumstances, however, a setback may prevent any development of a parcel of land. For example, in Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992), the state of South Carolina had adopted a statute that prohibited any development within a certain distance from the shoreline. The Supreme Court recognized that a development setback might further the state's purpose in preventing shoreline erosion and protecting property from the adverse impacts of hurricanes. However, the court also found that the setback prohibited all use of the property owner's land and rendered it valueless. Based on this finding, the court found that the setback resulted in an unconstitutional taking of property for the time during which it was in effect.

Because a minimum setback requirement can sometimes prohibit all development of property and may render property so valueless that it would constitute a taking, it is advisable to include a “savings clause” in the setback ordinance. A savings clause typically gives the local jurisdiction the flexibility to approve some development in order to avoid a taking. These clauses can be narrowly tailored such that they allow for development only to the extent necessary to avoid a taking of property. Some agencies, however, include a broader variance provision that allows an agency to take into account a number of factors, such as the suitability of the site for development, the availability of less damaging alternatives, when determining whether to

¹ Setbacks could still be required without a specific ordinance. For example, it would be possible to require a setback as a condition to the approval of a specific development project if the environmental review for the project found that such a setback was a feasible method of mitigating the project's adverse environmental impacts. As a general rule, however, courts will look more favorably upon development conditions that have their source in a legislative program that applies across the board.

deviate from the general requirements of the setback ordinance. In either case, the use of such a savings clause will serve to protect the setback ordinance from a facial takings challenge and it will give local officials the flexibility necessary to avoid a taking.

Ellison Folk is a partner with Shute, Mihaly & Weinberger, where she has worked since 1990. Ms. Folk defends governmental agencies in takings cases and she has advised jurisdictions on takings issues related to regulation of land use. Ms. Folk also specializes in representing citizen groups in cases brought under the California Environmental Quality Act and the Clean Water Act. Ms. Folk is a graduate of the Boalt Hall School of Law at the University of California, Berkeley, where she also received a masters degree in City and Regional Planning.

Re-Envisioning the Los Angeles River
Robert Gottlieb & Andrea Misako Azuma
Occidental College

During the past decade, the L.A. River has become a subject of intense re-examination, a major topic of policy debate, and a new kind of environmental icon. It has increasingly come to symbolize the quest to transform the built *urban* environment from a place seen as representing violence and hostility for communities and for nature, to one of rebirth and opportunity. To re-envision the Los Angeles River as a place of community and ecological revitalization rather than an exclusive and dangerous flood channel fenced off from the communities that surround it, provides a powerful message of renewal for urban rivers and the quality of urban life. It also provides lessons of how institutional and policy changes can be influenced by the ability to frame an issue, whether in relation to its historical context, its environmental and economic aspects, or its relationship to the broader discussion of land use at the local and regional level.

This presentation explores some of the influences on that process of reexamination. It includes a discussion of the roles of a community-oriented academic entity (the Urban and Environmental Policy Institute) and a non-profit organization (the Friends of the Los Angeles River) whose long-standing mission has been to enable policymakers and residents alike to rediscover this urban River. We also reflect on how the changing discourse around the River helped advocates mobilize support and influence policies in support of community and ecological revitalization.

The process of re-envisioning has also identified to need to understand and act upon the distinctive issues associated with the different neighborhoods along the River's path and the need to broaden River renewal advocacy to account for those various place-based, land use –related, and quality of life issues. River advocacy needs to become embedded in the multi-ethnic, cross-class realities of the Los Angeles region, and, given its path through the heart of its varied neighborhoods, serve as a catalyst for a broader type of regional renewal and a social as well as environmental justice agenda.

The presentation then concludes with a discussion of the debates and conflicts regarding the future of a one-time rail yard north of downtown, adjacent to the new Gold Line metro stop at Chinatown. Situated below the Spring Street bridge that crosses the River on its journey through downtown Los Angeles, this site, also known as the Cornfield and now a State Historical Park, became the very symbol of the re-envisioning process and indicated the power associated with the coalitions that came together to fight for River renewal. How to translate the idea of River renewal into specific place-based changes has now been heightened by the visually dramatic landscape of an actual cornfield developed as a temporary art project – and artist's vision of renewal – entitled (without irony) "Not a Cornfield." This nine month process of re-envisioning has concluded with a harvest (as we speak) and a sense that all is possible and yet everything still remains to be accomplished.

Robert Gottlieb is the Henry R. Luce Professor of Urban Environmental Studies and Director of the Urban and Environmental Policy Institute at Occidental College in Los Angeles. He is the author or co-author of eleven books, including: *The Next Los Angeles: The Struggle for a Livable*

City (2005); *Forcing the Spring: The Transformation of the American Environmental Movement -- New and Revised Edition* (2005); *Environmentalism Unbound: Exploring New Pathways for Change* (2001); and *A Life of its Own: The Politics and Power of Water* (1989). He is the editor of the MIT Press series, Urban and Industrial Environments that includes the imprint Sustainable Metropolitan Communities Books. A long-time activist and historian of social movements, Professor Gottlieb has been directly engaged in policy, program development and community action projects in such areas as food systems, transportation and land use, resource policy, and work and industry.

Guadalupe River: Rediscovery of a Natural Resource in San Jose's Urban Core
David J. Chesterman
Santa Clara Valley Water District

During the 1950s, '60s and '70s, when most of the orchards in Santa Clara County converted to homes and businesses, the creeks and rivers became a forgotten natural resource. The rapid development hardened the valley's landscape and directed increasing amounts of floodwaters to gradually narrowed river corridors. As the homes and businesses encroached upon the natural floodplains the predominant solution to provide needed flood protection for properties alongside the rivers was to straighten and concrete-line the narrow channels to more efficiently dispose of the floodwaters to San Francisco Bay. The remaining natural creeks and rivers are all too often strewn with mattresses, shopping carts, old refrigerators and couches, a dumping ground for the surrounding community.

Today, the community is rediscovering our rivers and streams as a natural resource to be protected, enhanced and preserved. As the final elements of the Guadalupe River Project were still under construction in September 2005, an estimated 40,000 residents gathered in the parks and trails along this vast multi-purpose project to celebrate a unique natural river corridor in the highly urbanized downtown San Jose area. After several starts and stops in planning efforts spanning the last five decades, the completed project will forever serve as the natural landscape thread that weaves together the surrounding Downtown San Jose Urban Core. The project was jointly developed by the U.S. Army Corps of Engineers (Corps), the Santa Clara Valley Water District (SCVWD) and the San Jose Redevelopment Agency (SJRA) to achieve the goals of flood protection, habitat enhancement and recreational benefits for the surrounding community.

At a total cost of \$350 million, the 2.6 mile long project was successful in providing critically needed flood protection from the 100-year design storm event of 17,000 cubic feet per second, nearly double the recent high storm flows that occurred in 1995 and 1998 that caused flooding of streets, homes and businesses near the river in downtown San Jose. The flood related damages avoided by the project reach nearly \$600 million while savings in flood insurance premiums provide a net economic benefit to the community of an estimated \$4 million annually.

The project also protected the Central California Coast steelhead, which has been listed as "threatened" under the federal Endangered Species Act and for which the Guadalupe River is designated as critical habitat. Construction of the downstream reach of the project was completed in 1995 and was generally considered to provide enhanced habitat benefits due, in part, to the availability of relatively inexpensive lands underlying the flight path of the San Jose International Airport. The remaining upstream reach was severely constrained by the existing infrastructure of the dense urban core of San Jose which had encroached upon the historic floodplain right up to the edge of the river's banks. The originally planned one-bank widening in the upstream reach would have removed several hundred lineal feet of shaded riverine aquatic (SRA) vegetation, which, in turn, would expose the river to direct sunlight and raise water temperature above acceptable threshold levels for the fledgling threatened steelhead population. So, just prior to the start of construction of the upstream reach, the Guadalupe/Coyote Resource Conservation District filed a notice of citizen's suit under Clean Water Act section 505. The

notice alleged that the already completed portions of the project did not meet the conditions of the 1992 water quality certification and that remaining portions would further degrade water quality, especially temperature.

In the ensuing months, a collaborative comprised of the SCVWD, the Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fisheries, California Department of Fish and Game, San Francisco Bay Regional Water Quality Control Board and City of San Jose joined together with the potential litigants to develop a revised conceptual design that would meet several important criteria. It would not only provide needed flood protection but also achieve measurable objectives for support of beneficial uses, be cost effective and result in timely project completion. Driven primarily by the desire to maintain acceptably low water temperatures, the resulting flood protection project included construction of a large underground culvert measuring over one half mile long, with a cross section measuring over 50 feet wide and 20 feet high. The culvert allows roughly half of the flood flows to bypass the natural river channel while avoiding removal of over one half mile of critical SRA. The bypass of significant portions of high flows both protects the natural configuration of the channel from erosion and provides the needed capacity to safely convey flows downstream.

Besides ensuring water temperature suitable for steelhead and Chinook salmon, the redesigned project had significant additional habitat benefits including planting 21 acres of riparian vegetation and nearly 23,000 linear feet of SRA vegetation, replacing and maintaining critical spawning and rearing habitat and constructing low-flow channel invert and bank stabilization features. The project also included an unprecedented commitment by the Corps for the first three years and by the SCVWD for the remaining life of the project to measure the success of the project in meeting these habitat commitments. An Adaptive Management Team, comprised of members of the original collaborative process, meets annually to review the monitoring results for specific measurable objectives and make recommendations to better achieve the project's habitat improvement commitments. Those recommendations may include physical changes to the project to better achieve the project goals. The SCVWD then implements some of the various recommendations through its annual maintenance program for the river.

In spite of the extensive environmental and habitat features and commitments, there are certainly areas where compromises were necessary to meet the flood protection goals amidst the constraints of the existing urban infrastructure along the project. One example is the predominance of concrete retaining walls, gabion baskets, articulated concrete matting in a one block long stretch of the project. At that location, an eight lane interstate highway overpass supported by dozens of concrete piers precluded the construction of an underground bypass in that short reach. The previously restricted natural channel required extensive widening, removal of existing vegetation and armoring of the banks with gabions and concrete to safely pass the full 100-year design flood event. While the immediate post-construction condition of this reach is barren in contrast to the natural upstream and downstream reaches, re-establishment of vegetation along the banks and natural deposition of gravels along the concrete channel bottom over the next few years will significantly improve the aesthetic and habitat values.

Compromises were also made among competing environmental goals. Protection of the threatened steelhead runs precluded the extensive re-configuring of the river that may have better

established natural stream functions, even within the narrow constraints of the available corridor. Construction of 'natural' floodplain benches along the river would have removed most of the same creek-side SRA as the originally proposed one-bank widening design, thereby increasing water temperature for decades while new vegetation matured. Further, that channel configuration would not have recreated the historic channel that has existed for recent recorded history but would have established a new, modified channel configuration, albeit based on geomorphic design principles.

Finally, compromises were made to meet the recreational goals of the project. The culverts running laterally alongside the natural river provided the opportunity to create over 500 acres of new parks and open space alongside the river. By covering the concrete culvert roof with several feet of soil, the project created new lands for parks in the urban core; lands valued at upwards of \$2 million per acre. When upstream and downstream projects are completed, a total of over 20 miles of trails will wind along the Guadalupe River corridor from San Francisco Bay to the surrounding foothills, allowing bicyclists and hikers to more fully appreciate and enjoy the river. While there is an inherent conflict created by allowing recreational access to sensitive habitat areas along the river, the Guadalupe River Project strikes an appropriate balance between achieving habitat protection and providing recreational benefits in a highly urbanized setting.

There are several key lessons learned during the planning and implementation of the Guadalupe River Project. First and foremost, collaboration is absolutely essential to bring together the diverse interests to successfully plan, design and construct a project of this magnitude. Even among the many participants who share the same environmental goals, it quickly becomes clear that there is no single correct answer to best meet those goals. The required compromises become even more pronounced as one considers the additional interests of providing flood protection and recreational benefits. The working relationships established among representatives of the resource protection agencies, environmental and recreational interest groups and project sponsors has continued beyond the Guadalupe River Project through the establishment of the Guadalupe Watershed Integration Working Group (GWIWG). That ongoing forum has continued to allow multi-agency collaboration on all trails, flood protection and creek restorations projects along the Guadalupe River and furthers the collective knowledge to help make better informed decisions.

Second, continued study and adjustment of the physical system, so called adaptive management, is essential to meeting environmental and habitat protection goals. The SCVWD is now moving beyond the initial commitments of the mitigation and monitoring plan for the Guadalupe River Project to a watershed based approach to fisheries management. Extensive fisheries tracking studies are undertaken by SCVWD fisheries biologists to learn more about the migration patterns of the steelhead and Chinook salmon and determine strategies to further enhance the resource. It is anticipated that this comprehensive watershed based approach to natural resource management will ultimately supersede and replace the very narrowly focused project-by-project planning and permitting process and result in more effective use of our limited public resources.

Finally, the construction of this project in the urban core of Downtown San Jose has lead to the rediscovery of this forgotten resource in the middle of Silicon Valley, our urban rivers. It has served to highlight the benefits of establishing and enhancing the community's connection to the

natural river setting. It has lead to development of policies and guidelines by the larger community that recognize that relationship between protection of our rivers and creeks and economic development of the larger community. Urban design guidelines are now promoting the concept of a more compatible relationship between rivers and the surrounding communities, preserving and enhancing the ecological functions of the river as a community asset for future generations to enjoy. Cities in the area have joined the SCVWD in a true collaboration to jointly embrace policies and guidelines to protect the rivers as land development continues in the valley.

What's next? The Santa Clara Valley Water District will continue to apply these lessons learned as we complete the six mile long \$220 million Upper Guadalupe River Project in partnership with the Army Corps of Engineers, the City of San Jose and their other local partners and interest groups. The planned 10 year construction effort will complete a 20-mile long urban river corridor rivaling any in the nation.

David Chesterman, as head of the Santa Clara Valley Water District's Capital Program Services Division, will oversee implementation of a planned \$450 million capital improvement program. Previously, he served as the District's Guadalupe Watershed Manager, overseeing flood control and stream restoration projects, stream maintenance activities and coordinating land development matters with each of the cities within the 170 square mile watershed. Mr. Chesterman joined the District in 1980 and has held various technical and management positions in areas of groundwater management, water supply planning and project development. He chairs the Santa Clara Valley Urban Runoff Pollution Prevention Program Management Committee and the Guadalupe Watershed Integration Working Group.

The Watershed Approach Works
Joshua Bradt, Restoration Director
Urban Creeks Council

The Urban Creek Restoration Movement has made great strides in large part due to the concept of Watershed Planning. While many in-the-ground creek restoration projects continue to occur with an opportunistic, block-to-block approach; larger scale projects are now often planned with direction from coordinating councils of interested citizens, public works and flood control agencies, regulatory agency personnel, educators, and non-profits.

The Watershed Approach is the concept of dealing with creeks not as segmented reaches, but as holistic systems which are interconnected from top to bottom. Every creek is an indicator of the environmental and social health of the watershed it drains—much can be learned about the watershed by examining its creek areas. Dumping and trash, homeless encampments, heavy metals, and contaminated sediments, as well as flash flooding and excessive scour are some of the typical conditions of our urban waterways in the San Francisco Bay Area (and in other urban regions around the county and the world). These social and environmental problems are often hidden in plain sight along our creeks. Most of us are conditioned to accept these conditions as the inevitable product of urban life.

Most Bay Area creeks were managed solely on a parcel-by-parcel and case-by-case basis. Of course, flood control district and city agencies do manage much larger parcels as they hold maintenance easements on those creeks which were essential to the flood control infrastructure. Homeowners are still generally on their own in terms of managing the creeks flowing through their property. The regulatory framework which seeks to minimize the impacts of proposed creek improvements (often erecting retaining walls or other hard engineering to confine or armor against the creeks natural processes) still reflects this case by case management approach as proposed projects are reviewed and permitted individually.

Larger restoration projects offer much more geomorphic, ecologic, and economic value than smaller discontinuous ones. State bond money has been generously dedicated by the public to fund collaborative, community supported, comprehensive watershed planning and restoration projects. It is typical to see a Bay Area urban creek with at least a “friends” group dedicated to its stewardship and preservation. These grassroots groups become vocal in their advocacy of restoration and preservation, opportunities for restoration projects are brought to the attention of policy makers, etc. Where there is public will, policy often follows (at least locally). Watershed Councils and Comprehensive Resource Management Planning are increasingly popular and effective approaches in developing priorities and creating order in landscapes supporting an endless array of opportunities and constraints due to competing and complementary land uses, people, and ecosystems.

One early expression of watershed planning came from the Wildcat-San Pablo Creeks Design Team organized in the early 1980's. This group successfully redesigned an impending (and much needed) USACE flood control project to include greater environmental and recreational

elements. This award-winning group still meets regularly as the *Wildcat-San Pablo Creeks Watershed Council*.

Joshua Bradt is the Restoration Director (and former Executive Director) of the Urban Creeks Council of California. He has implemented numerous small-scale design/build stream restoration projects in the San Francisco Bay Area since 1998. Mr. Bradt comes to the Urban Creeks Council with over two years of field supervision experience with the East Bay Conservation Corps and one year experience as a Planning Specialist with the Contra Costa Clean Water Program. Mr. Bradt's professional experiences have given him a unique personal perspective of the various aspects of stream restoration and land use planning.

PANEL NO. 3: NATIONWIDE URBAN RIVER POLICY CASE STUDIES

Daylighting Salt Lake's Entombed City Creek
Ron Love, Technical Planner
Public Services Department – Salt Lake City Corporation

Although City Creek in downtown Salt Lake City was entombed a century ago for health and safety reasons, a significant number of national, local and international interests have teamed up to ensure its eventual daylighting. The environmental movement awakened in the second half of the twentieth century, the redevelopment of 650 acres of abandoned rail yards in downtown Salt Lake City under a Brownfields Pilot Program, the North American Waterfowl Management Plan established by Mexico, the US and Canada, Section 206 of the Water Resources Development Act, the need for Union Pacific RR to clear a bottleneck on its transcontinental line, and the desire to complete a statewide regional trail system, all converge today in downtown Salt Lake City at the site of the proposed daylighting of a two mile stretch of City Creek.

Six years of active work on the daylighting project leaves City Creek entombed, but with more promise than ever of seeing the light of day. Under the Corps of Engineers (USACE) Section 206 Aquatic System Restoration Program, this daylighting would most likely have been completed today except for the diversion of funds for national security matters. Once completed, this creek with 13 acres of riparian wetland will have a significant impact by expanding the riparian area in the center of an international waterfowl flyway. If the Daylighting Project is to go forward under the Section 206 process, USACE funds must be released for the completion of the study, design, and construction. Given the current diversion of Section 206 funding coupled with the recent disasters in the Southeastern US, there is no way to predict when or if the Daylighting Project will continue under this program.

Should Section 206 monies not be restored for this daylighting, Salt Lake City will be forced to develop other funding sources, and the Daylighting Project might move forward without the USACE assistance; the results would be vastly different than planned under the 206 program. Citizens in the area have not completely embraced the concept of a natural riparian strip through their neighborhood, mainly out of distrust for the unknown. The concept of a "River Walk," that brought attention and praise to San Antonio, is much better known and therefore, better supported by the citizens of the area.

The Daylighting Project calls for diverting water from an existing culvert to the point of daylighting just west of a recently completed Brownfields redevelopment project consisting of an outdoor shopping mall, twelve stories of condominiums, a planetarium, convention space, fountains, and apartments. The daylighted creek would meander approximately 7,900 linear feet in a dirt lined open channel approximately three-feet deep, ten-feet wide at the top, and two-feet wide at the bottom with a proposed slope of 2.7 feet horizontal to one foot vertical. The riparian area containing the creek will consist of a thirteen acres strip that varies from eighty feet to one hundred and fifty feet wide as it passes under a major freeway, and through an area of the city now in transition. Zoning is industrial, commercial and residential. This strip is now an active rail line.

Involving and sustaining the involvement of as many groups, individuals, and agencies as possible should ensure continued attention to this project. Non-governmental agencies such as

Friends of the Great Salt Lake, Ducks Unlimited, Trust for Public Lands and Watershed Management, have been a huge help in maintaining a high level of interest. Networking with like-minded organizations throughout the country has also produced significant support for this project. Guided tours for EPA and USACE personnel, environmental groups, elected officials, and members of sympathetic national organizations continually bring significant energy that keeps this project alive.

An Urban Rivers Restoration Initiative (URRI) grant was used to create a small area master plan (SAMP) uniting the community and focusing on the future of the area once the Project is completed. This SAMP indicates that significant redevelopment opportunities normally associated with daylighting projects are anticipated in this area. This process will also ensure the City's Planning Division, Planning Commission, and City Council all gain a solid understanding of the wishes of the community. URRI funds are being used to create a virtual tour of the area. This computer-enhanced video showing the envisioned Daylighting will be widely used to garner additional support for the Project.

Publicity given this Daylighting Project at local, state and national levels, and at conferences such as this City Rivers Conference, coupled with the donation of the necessary land to the City by the railroad, will lead to the eventual daylighting of this stream entombed for the past century.

Ron Love retired after twenty years with USACE where among his many assignments he taught at the German Army Engineering School in Munich and was staff to a NATO Engineering Task Force that developed International Land Mine Warfare Policy. He is currently employed as a Planner for the Public Works Department of Salt Lake City. His education includes bachelors' degrees in Mathematics (UTEP) and Urban Planning (University of Utah) and a Masters of Public Administration (Utah). Ron and his wife are building a log cabin, retirement home adjacent to the Toiyabe Nation Forest in Southern Nevada.

Recapturing the Anacostia for 21st Century Washington, DC

Uwe Steven Brandes

Vice President, Director of Capital Projects and Planning

Anacostia Waterfront Corporation

For decades, the Anacostia River -- its shoreline, waterfront neighborhoods and watershed -- has been neglected by those responsible for its stewardship. The river's water is severely polluted; obsolete transportation infrastructure isolates neighborhoods and divides Washington into areas "east" and "west" of the river; public parks are underutilized and suffer from chronic disinvestment; and several communities along the river are among the poorest in the metropolitan Washington region. With the river forming a boundary between race and class and with over 70 per-cent of the river's lands in public ownership, the need to rethink the management of this urban river is clear. While the river can only be understood as a function of its watershed, the focus of this essay is on those lands within the District of Columbia ("DC"), which form the last 7-mile stretch of river corridor before the confluence with the Potomac River.

Today, the effort to recapture the Anacostia follows in Washington's tradition of great public works initiatives. The original plan for the city, now 200 years old, established the urban framework for a great national capital stretching between the Potomac and Anacostia Rivers. One hundred years ago, the Senate Park Commission's McMillan Plan envisioned Washington's most memorable civic places along those rivers including the National Mall and Rock Creek Park, but its vision of an ecological greensward along the Anacostia River was never realized.

This presentation will explore the federal-local partnership and the planning process known as the Anacostia Waterfront Initiative ("AWI"), which has produced a development plan for the Anacostia River, and its neighborhoods that may prove as powerful and enduring as previous city-building endeavors that have shaped the nation's capital into what it is today.

The guiding principles listed below were established at the outset of the AWI:

- Create a lively urban waterfront for a world-class, international capital city;
- Produce a coordinated plan that can be implemented over time;
- Restore the Anacostia's water quality and enhance the river's natural beauty;
- Reconnect neighborhoods along the river and link their communities to the river;
- Link distinctive green parks, varied maritime activities, and unique public places into a continuous public realm;

- Embrace sustainable and low-impact development in waterfront neighborhoods;
- Stimulate economic development and job creation ensuring that existing residents and low-income communities benefit and share in the re-development;
- Engage all segments of the community to foster river and watershed stewardship;
- Address issues and concerns raised by the community, and
- Promote excellence in architectural and landscape design in all aspects of the endeavor.

The Anacostia Waterfront Initiative represents one of the most important partnerships between local and federal agencies in the District of Columbia. It is unprecedented in the history of urban planning in Washington due to its inclusion of neighborhoods on both sides of the river and its multi-disciplinary approach to environmental restoration. It is the first participatory planning process conducted in the District of Columbia that was explicitly conceived of as a local-federal partnership to plan for local and federal lands simultaneously.

Recent public actions seek to institutionalize the spirit of the planning partnership by forming a dedicated entity with a single purpose of realizing the AWI Framework Plan, and with a govern-ance structure that includes both local and federal representation. The goal of the AWI is noth-ing short of the rebirth -- ecological, economic, social and cultural -- of the Anacostia river in a manner which responds to contemporary urban and environmental dilemmas, while following in the footsteps of the great city-building traditions of the nation's capital city.

Uwe Steven Brandes serves as Vice President, Director of Capital Projects and Planning at the AWC. Previously, he served as Project Manager of the Anacostia Waterfront Initiative in the D.C. Office of Planning, where he managed the multi-agency planning effort resulting in the award winning Anacostia Waterfront Framework Plan. Brandes' background is in the design and construction of major public redevelopment projects. Prior to joining the Office of Planning, he practiced architecture in New York City, where he completed projects including the Buffalo Inner Harbor, the Glen Cove Waterfront Plan and the master plan for the United States Military Academy at West Point. He holds an engineering degree from Dartmouth College and a Master of Architecture degree from Harvard University and is a Fulbright scholar. He has lectured widely on contemporary urban design issues and has held several teaching positions, including Adjunct Professor at the Pratt Institute, School of Architecture.

Protecting and Restoring Urban Rivers & Streams in the Portland-Vancouver Region

Mike Houck, Director
Urban Greenspaces Institute

The belief that the city is an entity apart from nature and even antithetical to it has dominated the way in which the city is perceived and continues to affect how it is built. The city must be recognized as part of nature and designed accordingly. Anne Whistlin Spirn, *The Granite Garden*

Rivers and Streams: Securing the Urban Green Infrastructure

Henry David Thoreau's aphorism, "In wildness is the preservation of the world," has driven our country's conservation agenda for over century. The emphasis has been, first and foremost, the protection of wilderness, pristine habitats, and agricultural lands in the rural landscape. Cities have, to the detriment of urban streams and rivers as well as many species of fish and wildlife that reside in them, been viewed and characterized as ecological wastelands. If we hope to succeed in protecting the rural landscape I propose a corollary to Thoreau's mantra: "In livable cities is preservation of the wild." This is the mantra of the Urban Greenspaces Institute. We must commit significantly more resources to the protection and restoration of natural elements of the urban landscape, as an explicit strategy for protecting farm, forest, and other rural resource lands and for creating more livable cities.

By creating livable urban communities we will build public support for creating higher density, compact urban areas that will, in turn, lead to enhanced protection of the rural landscape from urban sprawl. The quid pro quo, however, is enhanced protection and, where necessary, restoration of a vibrant urban Green Infrastructure of healthy streams and rivers, fish and wildlife habitat, parks, and recreational trails where the vast majority of our population lives---in our cities.

While it's true that Oregon's land use planning program has been extremely successful at containing urban sprawl--- the Portland metropolitan region's population expanded by 31% between 1990 and 2000 and land consumption increased by only 3%---the manner in which many local jurisdictions have applied the state wide planning goals has led to significant losses of natural resources, degraded water quality, and disappearance of fish and wildlife habitat throughout the region.

For example, the Portland region has over 300 miles of streams that have been placed in underground conduits and over 200 miles of streams and rivers have been declared "water quality limited" or polluted by the Oregon Department of Environmental Quality. As you undoubtedly already know, steelhead trout and Chinook salmon have been listed as threatened under the federal Endangered Species Act.

It was the lack of river and stream protection, park deficiencies, and lack of a comprehensive, integrated regional trail network, at either the local or regional levels, that led to a grassroots movement to create a regional Greenspaces movement in 1989 in the Portland-Vancouver metropolitan region. This movement focused on three fronts: **Acquisition, Regional Growth Management, and Watershed Planning & Stormwater Management.**

Acquisition: Metropolitan Greenspaces Initiative

In his 1903 Portland Park master plan John Charles Olmsted presaged our current interest in urban waterway and watershed management by noting, "Marked economy may be affected by laying out parks, while land is cheap, so as to embrace streams that carry at times more water than can be taken care of by drain pipes. Thus, brooks or little rivers which would otherwise be put in large underground conduits at enormous public expense, may be attractive parkways."

Taking Olmsted's comprehensive park scheme as its template, our regional government, Metro, adopted a regional Greenspaces Master Plan in 1992 that called for the creation of a comprehensive, interconnected regional system of Greenspaces to: 1) Protect and manage significant natural areas; 2) Preserve the diversity of plant and animal life in the urban environment, using watersheds as the basis for ecological planning; 3) Establish a system of interconnected trails, greenways and wildlife corridors; and 4) Restore green and open spaces in neighborhoods where natural areas are all but eliminated.

Following the adoption of the Greenspaces Master Plan in 1992 the Portland metropolitan region's voters approve a \$135.6 million bond measure for natural area acquisition, by over 60% of the region's voters. Metro's land acquisitions have since focused on 14 regional "target areas" and six trail and greenway project areas that were deemed of regional ecological significance. As of June, 2005 Metro had secured over 8,200 acres of land, including over 74 miles of river and stream frontage. It should be noted, by the way, that one of the most significant inspirations for our own regional Greenspaces Plan was the East Bay Regional Park District. Their staff devoted significant time and resources to meet with our elected officials, park professionals, and citizens.

Metro recently announced plans to embark on a second regional greenspaces bond measure in the fall of 2006 which may raise as much as \$275 million for additional acquisition of regionally significant natural areas, including more riparian and wetland habitats along streams and rivers.

Regional Growth Management

"Instead of laying down an arbitrary design for a region, it might be in order to find a plan that nature has already laid down...a regional design of streams and valleys that provide superb natural connectors, into the very heart of the urban area." *The Last Landscape*, William H. Whyte, 1968.

Following the successful Greenspaces planning process, another grassroots campaign was launched in 1994, this time by a coalition of nonprofit organizations---the Coalition for a Livable Future (CLF). The CLF focused its efforts on Metro's Region 2040 growth management planning process. It's important to note that by law all 25 cities and four counties within its jurisdiction must amend their local comprehensive plans to conform to regional guidelines and regulations. Metro is the only directly elected regional government in the U. S. Our first effort was to insert language into the Future Vision document that would set the stage for stronger river and stream protection. An example of the language we succeeded in getting adopted in the regional planning framework: The region shall "Integrate urban, suburban, and rural lands in a watershed-wide perspective to ensure reduction in downstream flooding, reduction in winter time

flows and enhancement of summer flows, protection of riparian corridors and wetlands and restoration of fisheries. Any future development within targeted urban reserves must be sensitive to increased stormwater runoff, erosion, and sources of pollution and flooding downstream communities. An integrated, multiobjective floodplain management strategy shall be developed which recognizes the multiple values of stream and river corridors including: enhanced water quality, fish and wildlife habitat, open space, increased property values, education, flood reduction, aesthetics, and recreation. An interconnected system of streams, rivers, and wetlands that are managed on an ecosystem basis and restoration of currently degraded streams and wetlands are important elements of this ecosystem approach.”

In the summer of 1998 Metro adopted Water Quality and Floodplain Management regulations that require requires 15-foot to 200-foot vegetated corridors be protected along streams and rivers in all 25 cities and three counties within its jurisdiction. More recently, Metro adopted regulatory protection for fish and wildlife habitat for the highest value streams in the region. The remainder of the 80,000 acres of upland habitat and Class III and IV stream corridors will receive less protection, but are included in Metro’s Nature in Neighborhoods non-regulatory program (www.metro-region.org).

Watershed Planning & Stormwater Management

More recently the City of Portland has developed what I consider an innovative watershed planning and stormwater management proposal. The city’s draft *Actions for Watershed Health, 2005 Portland Watershed Management Plan*, incorporates green, non-engineered approaches to watershed and stormwater management, that respond to the University of British Columbia’s Patrick Condo’s admonition to build our cities “lighter, greener, cheaper, smarter.” Assuming Portland City Council adoption, Portland’s program should become the regional standard for watershed planning and stormwater management.

Summary: These are a few examples of the Portland-Vancouver metropolitan region’s efforts to better integrate the built and natural environments and to improve the health of our streams and rivers. Other efforts underway to protect the existing high quality fish and wildlife habitat inside our urban growth boundary, and to restore currently degraded streams, rivers, and fish and wildlife habitat. Many more programs are needed and the grassroots efforts of numerous neighborhood-based friends organizations and NGOs dedicated to creating an ecologically sustainable region, combined with innovative efforts on the part of city and regional governmental agencies, will be needed to improve on those efforts.

Mike Houck directs the Urban Greenspaces Institute (www.urbangreenspaces.org) in Portland, Oregon, which he founded in 1999. He has worked on urban park and greenspace issues since 1980 when he initiated the Urban Naturalist Program at the Audubon Society of Portland. He helped found the Coalition For A Livable Future (CLF) (www.clfuture.org) in 1994 to better integrate social and environmental issues into the region’s growth management planning process. He was selected as a Loeb Fellow and spent a year in residence at Harvard’s Graduate School of Design in 2004. Mike is co-editor of the book, *Wild in the City, a Guide to Portland’s Natural Areas*, and *Wild on the Willamette, Exploring the Lower Willamette River*.