



MULTNOMAH COUNTY OREGON

BOARD OF COUNTY COMMISSIONERS
ROOM 605, COUNTY COURTHOUSE
1021 S.W. FOURTH AVENUE
PORTLAND, OREGON 97204

GLADYS McCOY • CHAIR • 248-3308
PAULINE ANDERSON • DISTRICT 1 • 248-5220
GRETCHEN KAFOURY • DISTRICT 2 • 248-5219
RICK BAUMAN • DISTRICT 3 • 248-5217
SHARRON KELLEY • DISTRICT 4 • 248-5213
JANE McGARVIN • Clerk • 248-3277

AGENDA OF
MEETINGS OF THE MULTNOMAH COUNTY BOARD OF COMMISSIONERS
FOR THE WEEK OF
August 28 - September 1, 1989

Tuesday, August 29, 1989 - 9:30 AM - Informal Briefing . . Page 2
Tuesday, August 29, 1989 - 1:30 PM - Informal Meeting . . Page 3
Thursday, August 31, 1989 - 9:00 AM - Executive Session . Page 4
 9:30 AM - Formal Meeting
 12:00 PM - Work Session

-2-

Tuesday, August 29, 1989 - 9:30 AM

Multnomah County Courthouse, Room 602

INFORMAL BRIEFINGS

1. Presentation about METRO's parks and infrared projects -
Mel Huie, Mike Hauck.

PUBLIC TESTIMONY WILL NOT BE TAKEN AT INFORMAL MEETINGS

-3-

Tuesday, August 29, 1989 - 1:30 PM

Multnomah County Courthouse, Room 602

INFORMAL

1. Informal Review of Bids and Requests for Proposals:
2. Informal Review of Formal Agenda of August 31, 1989

PUBLIC TESTIMONY WILL NOT BE TAKEN AT INFORMAL MEETINGS

NOTE CHANGE OF TIME

Thursday, August 31, 1989, 9:00 AM

Multnomah County Courthouse, Room 602

EXECUTIVE SESSION

Executive Session regarding Real Estate Transactions (allowed per ORS 192.660(1)(e))

9:30 AM

Formal Agenda

REGULAR AGENDA

DEPARTMENT OF HUMAN SERVICES

- R-1 In the matter of ratification of an Intergovernmental Agreement with Oregon State Health Division whereby the State Public Health Laboratory will continue to test blood of County clients for Hepatitis A and Hepatitis B for period July 1, 1989 to June 30, 1990
- R-2 In the matter of the ratification of an Intergovernmental Agreement with State Community Services (SCS) for \$1,740,492 in various SCS funds to provide community services and weatherization services on a Countywide basis during various periods in FY 89-90; and amendment to the contract reallocating \$5,712 in Emergency Community Services Block Grant funds and \$35,414 in State Homeless Assistance Program funds from program to administration
- R-3 In the matter of ratification of an Intergovernmental Revenue Agreement between Multnomah County Social Services Division and City of Portland whereby City will provide \$40,000 to cover partial costs in maintaining staff support for the Regional Drug Initiative for the term July 1, 1989 to June 30, 1990
- R-4 Budget Modification DHS #4 to increase Social Services Division A & D budgets, various line items for a net total of \$12,226 to reflect actual revenue from City of Portland for Regional Drug Initiative

- R-5 In the matter of ratification of an Intergovernmental Agreement with Oregon Health Sciences University whereby the University will continue to provide physicians for \$120 per half day clinics at County's T.B. clinic for period July 1, 1989 through June 30, 1990
- R-6 In the matter of ratification an Intergovernmental Personal Services Agreement between Oregon Health Sciences University and the Developmental Disabilities program office whereby the County will pay for psychiatric evaluation for Developmentally Disabled clients referred by case managers at established rates for the period August 18, 1989 through June 30, 1990
- R-7 In the matter of ratification of a work study agreement between the University/Community Action Program of the University of Oregon and the Developmental Disabilities program office whereby County will contribute \$3,420 for a work study student for the period September 19, 1989 through June 8, 1990.
- R-8 In the matter of ratification of an Intergovernmental Agreement with the City of Portland, Energy Office, for \$153,500 in funds to provide weatherization services through the Block-By-Block (BBB) program during the period August 16, 1989, through June 30, 1990
- R-9 In the matter of ratification of an Intergovernmental Agreement with the State Adult and Family Services Division whereby the County agrees to continue to administer the "Physician Care Organization Agreement" and agrees to various amendments for period October 1, 1989 through September 30, 1990.
- R-10 In the matter of ratification of a grant award from Department of Health and Human Services, Family Support Administration, Office of Community Services (OCS) for the period of July 1, 1989 to June 30, 1991 for the County to conduct a Homeless Family Self-Sufficiency Demonstration Project.

DEPARTMENT OF JUSTICE SERVICES

- R-11 In the matter of ratification of an Intergovernmental Agreement with the State's Portland Motor Pool whereby the County Corrections Counselors in the Community Corrections Division's Intensive Supervision Unit continue using State vehicles; idemnifies the State for the use of three cars by County staff.

- R-12 In the matter of ratification of an Intergovernmental Contract with the City of Portland, Police Bureau to provide services to fingerprint and photograph individuals arrested for crimes for period July 1, 1989 to June 30, 1990.
- R-13 Resolution in the matter of interjurisdictional effects at Columbia Villa
- R-14 Liquor License application submitted by Sheriff's Office with recommendation that same be approved for Quick Shop Minit Mart #11, 13076 SE Stark (Package Store - change of ownership)

DEPARTMENT OF ENVIRONMENTAL SERVICES

- R-15 In the matter of ratification of an amendment to an Intergovernmental Agreement with the City of Portland whereby an amendment to the 1986 City/County Urban Services Agreement allows the City's Code Enforcement Officer the ability to enforce building code violations in cases originating in the County.
- R-16 In the matter of ratification of the 1989 Community Development Block Grant Contracts as follows for period September 1, 1989 to December 31, 1990: a) City of Gresham (CDBG #89-1) 10th & Linden Waterline Replacement; b) City of Fairview (CDBG #89-2) Reservoir/Waterline improvements; c) City of Wood Village (CDBG #89-3) Hawthorne/Ceder Lane Sanitary Sewer; d) City of Gresham (CDBG #89-5) NE Kane Road Waterline Installation; e) City of Wood Village (CDBG #89-5) 238th Transmission Line, Phase 2

DEPARTMENT OF GENERAL SERVICES

- R-17 In the matter of ratification of an Intergovernmental Agreement with North Clackamas School District #12 to use the County's contract for the purchase of Herman Miller furnishings in accordance with Bid No. B43-100-3028.
- R-18 Budget Modification DGS #1 reclassification of six (6) Property Appraiser Supervisors to Program Supervisors in the Assessment & Taxation Division with additional funds coming from salary savings (Continued from August 17)

NONDEPARTMENTAL

R-19 Proclamation In the matter of proclaiming Saturday, September 2, 1989 MADD/Volkswagen DRIVE FOR LIFE day in Multnomah County.

12 - 2 PM

WORK SESSION

Continuation of August 24 Work Session - Capital Improvements

Thursday Meetings of the Multnomah County Board of Commissioners are recorded and can be seen at the following times:

Thursday, 10:00 PM, Channel 11 for East and West side subscribers

Friday, 6:00 P.M., Channel 27 for Rogers Multnomah East subscribers

Saturday 12:00 PM, Channel 21 for East Portland and East County subscribers

0500C.49-55

DATE SUBMITTED 08/23/89

(For Clerk's Use)

Meeting Date 8-29-89 2:30 PM
Agenda No. 1

REQUEST FOR PLACEMENT ON THE AGENDA

Subject: Parks and Open Space

9:30AM
Informal Only* 08/29/89
(Date)

Formal Only _____
(Date)

DEPARTMENT Comm. Sharron Kelley

DIVISION Multnomah County Commission

CONTACT Franklin Jenkins

TELEPHONE 248-5083

*NAME(S) OF PERSON MAKING PRESENTATION TO BOARD Mel Huie and Mike Hauck

BRIEF SUMMARY Should include other alternatives explored, if applicable, and clear statement of rationale for the action requested.

Huie and Hauck will make a presentation about METRO's parks and infrared projects. The parks project includes a regional parks inventory that includes an already published guide to regional parks and their resources. The infrareds project is part of a study of regional ^{public} ~~open space~~ ^{recreation areas}. A slide show is part of the program. Commissioner Kelley directed the parks project, when she was a METRO commissioner.

(IF ADDITIONAL SPACE IS NEEDED, PLEASE USE REVERSE SIDE)

ACTION REQUESTED:

- INFORMATION ONLY
- PRELIMINARY APPROVAL
- POLICY DIRECTION
- APPROVAL

INDICATE THE ESTIMATED TIME NEEDED ON AGENDA 90 minutes

IMPACT: (Not Applicable)

PERSONNEL

- FISCAL/BUDGETARY
- General Fund

Other _____

1989 AUG 23 PM 4:23
MULTNOMAH COUNTY
OREGON

SIGNATURES:

DEPARTMENT HEAD, ELECTED OFFICIAL, or COUNTY COMMISSIONER: Sharon Kelley

BUDGET / PERSONNEL /

COUNTY COUNSEL (Ordinances, Resolutions, Agreements, Contracts) _____

OTHER _____
(Purchasing, Facilities Management, etc.)

NOTE: If requesting unanimous consent, state situation requiring emergency action on back.



METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503/221-1646

Memorandum

8-29-89
Hand Out

Date: August 29, 1989

TO: Multnomah County Board of Commissioners

FROM: Councilor Richard Devlin
Mel Huie, Senior Regional Planner *MA*
Planning and Development Department

SUB: Metro's Parks and Natural Areas Planning Program

A G E N D A

1. Project History, Background and Goals
2. Project Participants: A Consensus Building Process
 - o Cities/Counties/Tualatin Hills Park & Recreation District
 - o State and Federal Agencies
 - o Park Advocate Organizations
 - o Neighborhood Associations
 - o Past Meetings
3. Parks and Natural Areas Advisory Group and Subcommittees (Database, Natural Areas, Regional Corridors and Trails, and Financing Strategies)
 - o Future Meetings - *See Green Handout*
4. Products-to-Date
 - o Metro Recreation Resource Study
 - o Maps
 - o Parks Directory and Facilities Guide
 - o User-Friendly Parks Database/Information System
5. Color Infra-Red Aerial Photography Project
6. Natural Areas Inventory for the Metro Region
7. Project Benefits to Multnomah County
8. Metropolitan Wildlife Refuge System Project
Mike Houck, Portland Audubon Society
9. Friends and Advocates of Urban Natural Areas (F.A.U.N.A.)

8-29-89
Handout

Orig 8-26-89

Set aside urban wild lands

The long-awaited regional park study has given the metropolitan area a picture of how much park land it has. But the answer to one question only leads to another: How much park land should there be?

The Metropolitan Service District's inventory of all parks in the region should be no more than the first phase of the project. The study of existing parks inevitably drew the planners' attention to the open spaces not in parks — those substantial acreages of wetlands, wildlife habitat and other natural areas left within the urban community.

A logical second phase would record all of the open lands that are not contained within parks. Next would come consideration of how much should be preserved to strike a balance with development inside the urban growth boundary. Inherent in this phase would be a strategy for acquisition.

A California project, while hardly a perfect model for Portland, offers an example of preservation of open space in a city setting. The East Bay Regional Park District, which serves more than 2 million people, recently went through a similar process of identifying potential park land and

outlining an acquisition program. As an indication of how much urban dwellers may appreciate open space, the voters approved a bond measure of \$225 million.

Greater Portland is not looking at anything of that magnitude. But to know what it is looking at, the cataloging of natural lands must be done.

Richard Carson, Metro's chief planner, has turned up 10-year-old aerial photographs that should help. Comparing them with up-to-date photographs, Metro officials should be able to trace the recent trends on wetlands and wildlife areas. Then they can determine whether a change is in order.

Also available to help are Portland State University academic researchers and Mike Houck, the Audubon Society's urban naturalist, who can offer his vision of a metropolitan wildlife refuge system.

For all the growth that has occurred, the Portland area is still well-situated to blend preservation of natural resources with continued urban development. Best that it be done right while the opportunity exists. Future livability depends on studies made and decisions they produce in the next two years.



METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503/221-1646

Memorandum

8-29-89
Wax Sessian
Hand Out

Date: March 20, 1989
To: Local Park Planners and Interested Persons
From: Mel Huie, Senior Planner
Planning & Development Department
Sub: Metro's Parks & Natural Areas
Planning Program: Subcommittee Assignments

At the Regional Parks Forum VII on February 27, 1989, a presentation was made on the four new subcommittees we will be breaking into during the next year. To carry out the program, subcommittees will be needed. To have the existing committee review all aspects of the program would be impractical. The work activities for each subcommittee follow the recommended work program agreed upon by the full committee at its November 30, 1988 meeting. Metro will staff the subcommittees, but the work program will require an active role by participants.

Attached is a description of the subcommittees, their work activities, and estimate of your time commitments. Please review and sign-up for a subcommittee. Return to Metro by March 31.

For more information, contact:

Mel Huie
Metro
2000 S.W. First Ave.
Portland, Oregon 97201

(503) 220-1186

Attachment

Sign-up for Metro Parks & Natural Areas Subcommittees
February 27, 1989

Name: _____
Title: _____
Organization: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____

Choice of Subcommittee: Please rank top three selections.
I want to serve on two subcommittees: ___ YES ___ NO

- ___ Database
- ___ Natural Areas Planning
- ___ Regional Corridors: Trails, Greenways, Bicycle Routes, and Waterway Systems
- ___ Funding Strategies

Time Commitment and Schedule:

- o Subcommittees will meet monthly or as needed
- o Parks & Natural Areas Advisory Group will meet every two months or as needed
- o Meeting duration approximately 2 hours
- o Meeting locations at Metro and local jurisdictions

Staffing:

- o Metro's Planning & Development Department
- o Participation by subcommittee members in the work program, including inventory work, policy development, etc.

For More Information, contact: Mel Huie
Metro
2000 S.W. First Ave.
Portland, OR 97201
(503) 220-1186

Parks & Natural Areas Advisory Group

Subcommittees:

1. **Database:** Maintain and update existing parks inventory (maps, directory, computerized inventory); coordinate distribution of data to local jurisdictions, public libraries, school districts, the general public via newspaper articles and the telephone directory and Tri-Met System Guide;

Conduct one training session on how to utilize the user-friendly computerized parks database. The goal is to have terminals at Metro, Oregon Parks Division -- Portland regional office, Clackamas County, Multnomah County, Washington County, Tualatin Hills Park and Recreation District, and possibly at the county libraries. There is a cost for the software package, on-going database maintenance and training of staff which will be the responsibility of each participating organization. Metro would coordinate these efforts.

Conduct an inventory of public school recreation facilities (indoor and outdoor); display information on map;

Conduct an inventory of public recreational, community and senior centers (indoor and outdoor); display information on map;

Gather additional information on handicapped accessibility to parks, natural areas, and recreation, community and senior centers; coordinate these efforts with handicapped accessibility organizations;

Gather existing inventories and maps of parks, natural areas, public school facilities, public recreation, community and senior centers (indoor and outdoor) located in Vancouver and Clark County and the small cities outside of Metro, but within the tri-county area;

Work with Metro's Data Services Division to ensure that the Parks & Natural Areas Inventory is folded into the Regional Land Information System (RLIS) over the next 12-18 months.

Maintain a central library at Metro of the jurisdictions' Park Master Plans/Capital Improvement Programs;

Note: All the maps will be consistent to a scale of 1"=4,000'

Maintain a centralized mailing list of the jurisdictions' Parks Advisory Groups, citizen park advocate organizations;

Maintain a centralized mailing list of parks & natural areas planning consultants, and landscape architects who could be contacted for potential contracts;

2. Natural Areas Planning: Update existing inventory and map of natural areas within the Metro boundaries. Current inventory is based on a nine year old aerial photograph.

Develop guidelines for inventory; what kind of information needs to be collected, in what format should it be tabulated and mapped; how will the information be used;

Develop a work program to coordinate LCDC Goal 5 -- Open Spaces, Scenic and Historic Areas, and Natural Resources and Goal 8 -- Recreational Needs, within the Metro boundaries; coordinate this effort with the Department of Land Conservation and Development (DLCD); what jurisdictions have completed their natural areas inventories and policies; which jurisdictions still need to work on their inventories and policies;

Develop consistent methodologies and definitions, and mapping and information storage capabilities for natural areas within the region;

Coordinate the natural areas policies (LCDC Goal 5) within the Metro boundaries in consultation with all the cities, counties, park advocate organizations and the state of Oregon;

Identify natural area boundaries of local and regional significance in consultation with cities, counties, special districts, state and federal agencies, citizen park advocate organizations, developers, and private property owners for protection, preservation and potential acquisition. Information would be part of Metro's regional database and be available to federal, state, and local jurisdictions, special districts, park advocate organizations, developers and the general public;

Other:

3. Regional Corridors: Trails, Greenways, Bicycle Routes, and Waterway Systems:

Inventory and map information; create overlays for trails, greenways, bicycle routes (already mapped by Metro), and waterway systems;

Assemble local, regional, state and federal plans to be reviewed for coordination;

Identify areas of mutual concern between jurisdictions such as the preservation, management and potential acquisition of regional corridors; develop a strategy for interjurisdictional cooperation if appropriate and necessary;

Identify potential corridors, linear parks and natural areas for preservation, protection and possible acquisition in consultation with the local jurisdictions, special districts, state and federal agencies, citizen park advocate organizations, developers, property owners and the general public; information to be displayed on maps;

Other:

4. Funding Strategies:

Track state and federal legislation and grant programs related to parks and natural areas; disseminate information to local jurisdictions;

Conduct seminars on park financing related topics (e.g. federal and state grant programs, private fundraising strategies, public/private partnerships, tax considerations and incentives for land donations, property taxes and bonding, user fees, etc.);

Maintain a centralized library of public and private funding sources for parks and natural areas;

Work with state and federal agencies to maintain and increase funding of projects within the metropolitan area;

Other:



METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503-221-1646

Memorandum

8-29-89
Hand Out

August 4, 1989

To: Metro's Parks & Natural Areas Advisory Group
Mayors and County Commissioners
City & County Administrators and Planning Directors
Tualatin Hills Park and Recreation District
Interested Persons

From: Mel Huie, Senior Regional Planner *Mel Huie*
Planning and Development Department

Sub: **UPDATE ON PARKS ADVISORY GROUP AND SUBCOMMITTEE MEETINGS
Through December 31, 1989**

1. **Parks & Natural Areas Advisory Group meets every other month:**

August 22, 1989	9:30 a.m. - 1:00 p.m.	Blue Lake Park
October 1989	Date/Time/Location	To Be Announced
December 1989	Date/Time/Location	To Be Announced

2. **Natural Areas Planning Subcommittee will have its next meeting on the same day and time as the Parks & Natural Areas Advisory Group:**

August 22, 1989	9:30 a.m. to 1:00 p.m.
Blue Lake Park	

3. **Regional Corridors: Trails, Greenways, Bicycle Routes and Waterway Systems Subcommittee will meet**

November 1989	Date/Time/Location	To Be Announced
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4. **Funding Strategies Subcommittee will meet:**

September 27, 1989	3:00-5:00 p.m.	at Metro
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5. **Database Subcommittee will meet:**

No meeting is scheduled at this time.

*During the next twelve months, we will be concentrating on the Natural Areas Inventory/Analysis/Study for the region. The full advisory group will meet every other month to review the progress of this project. The subcommittees will meet only as needed.

QUESTIONS? Call Mel Huie at Metro. Phone: (503) 220-1186
Call Pat Lee at Metro. Phone: (503) 221-1646

bluegill, crappie, catfish and bass. Backwater channels connecting the two lakes wind through dense ash and willow forests, providing a refuge for wildlife and a place of solitude for humans.

Heron Lakes Golf Course

You don't have to be a golfer to enjoy this 225-acre city park. It's also a spot to watch nesting red-tailed hawks and to identify ducks and marsh birds which inhabit Force Lake and the adjacent wetlands. The premier wildlife attraction, however, is the great blue heron "rookery". Soon, an access trail will provide a nature walk around Force Lake to a viewing area in the northwest corner of the golf course. The nesting herons can be observed undisturbed from that vantage point. Courtship and nest construction begins in early February and raising of young continues through mid-summer when fledglings leave their nests.

Kelley Point Park

Kelley Point Park is where the Columbia and Willamette Rivers and Columbia Slough

all converge. The abundance of water, large cottonwood forest and open, grassy meadows make this one of Portland's most scenic parks. Kelley Point is also a natural departure point for hiking the 40-Mile Loop, launching a canoe or exploring the shores of the Columbia and Willamette Rivers.

Plants and Animals

Birds

On any trip along the Slough, to the wilds of Smith and Bybee Lakes or even to the more groomed Heron Lakes Golf Course, birds are the most conspicuous animals. Their frequently bright plumage, sometimes raucous behavior and relatively large size attract the attention of even the casual observer.

No bird epitomizes the Peninsula's watery environment or draws more attention than Portland's city bird, the great blue heron. It nests and roosts in black cottonwoods, stalks mice in open pastures and walks stealthily along lake margins and ponds in search of any morsel that might come its way . . .

including frogs, snakes, insects and fish.

Red-tailed hawks circle overhead searching for prey or lazily riding the rising air currents to gain altitude. Belted kingfishers, by contrast, zig zag energetically up and down the Slough with their unique rattling call and plunge headlong into the water after small fish. During the winter, thousands of ducks and geese gather in large flotillas on open water or graze on succulent, new grasses. The more reclusive marsh wren and common yellowthroat skulk through cattail and reed canarygrass marshes, periodically scolding intruders from any handy vantage point.

During the winter months, an occasional bald eagle or peregrine falcon may also drift over from Sauvie Island to feed on injured waterfowl or pigeons.

The shallow margins of Smith Lake provide easy angling for warm water fish. This makeshift "dock" and other informal access points abound in North Portland.

Plants

It is the black cottonwood that establishes the mood of the Peninsula's river bottom atmosphere. Their large, heart-shaped leaves, cottony seed masses and fragrant, sweet smell dominate the environment. The cottonwood and Oregon ash comprise most of the riparian zones, where the land meets water. Willows form impenetrable thickets around Smith and Bybee Lakes and an understory canopy along the Slough.

Although many of the former watery areas have been filled for industrial development, some of these new upland sites still provide spectacular wildflower displays. The evening primroses, teasel, thistles and other "weedy" species also attract a huge variety of insect life . . . including flocks of butterflies, dragonflies and damselflies. These informal wildflower gardens are scattered around the margins of Smith and Bybee Lakes, in Kelley Point Park and along North Portland roadways.

Getting There

Hiking, biking and boating are the most enjoyable ways to explore the Peninsula.

Hiking

The 40-Mile Loop will soon be completed along the Columbia Slough and will link the Peninsula with 5,000 acre Forest Park to the west and eventually extend as far east as the Sandy River Gorge

near Troutdale. Today, the undeveloped trails are informal but allow exploration of Kelley Point, Smith and Bybee Lakes and the Slough.

Biking

For those seeking a "ride on the wild side", a loop beginning at East Delta Park provides a pleasant bicycle trip to Kelley Point via Heron Lakes Golf Course, Marine Drive and Columbia Boulevard.

Boating

Although the Columbia Slough is navigable by shallow-draft powerboats, a more serene way to explore the Slough is by canoe, kayak or human-powered craft. There are several informal put-in points along the Slough and a boat ramp is planned for Kelley Point Park. Only non-motorized traffic is allowed in Smith and Bybee Lakes.

The gnawed ends of an Oregon ash seedling mark the presence of beaver.



For More Information

Friends of Portland Audubon Society
5151 NW Cornell Rd.
Portland, Oregon 97210
202-6855

Friends of Smith and Bybee Lakes
P.O. Box 03168
Portland, Oregon 97203

Friends of the Columbia Slough
Commissioner Bob Koch
City Hall, 1220 SW 5th
Portland, Oregon 97204
248-4151

Oregon Bass and Panfish Club
P.O. Box 1021
Portland, Oregon 97207
285-8189

Metropolitan Service District
Solid Waste Department
2000 SW First
Portland, Oregon 97201
221-1646
(For landfill closure information).

Portland Bureau of Parks and Recreation
1120 SW 5th Ave.
Portland, Oregon 97204
796-5193

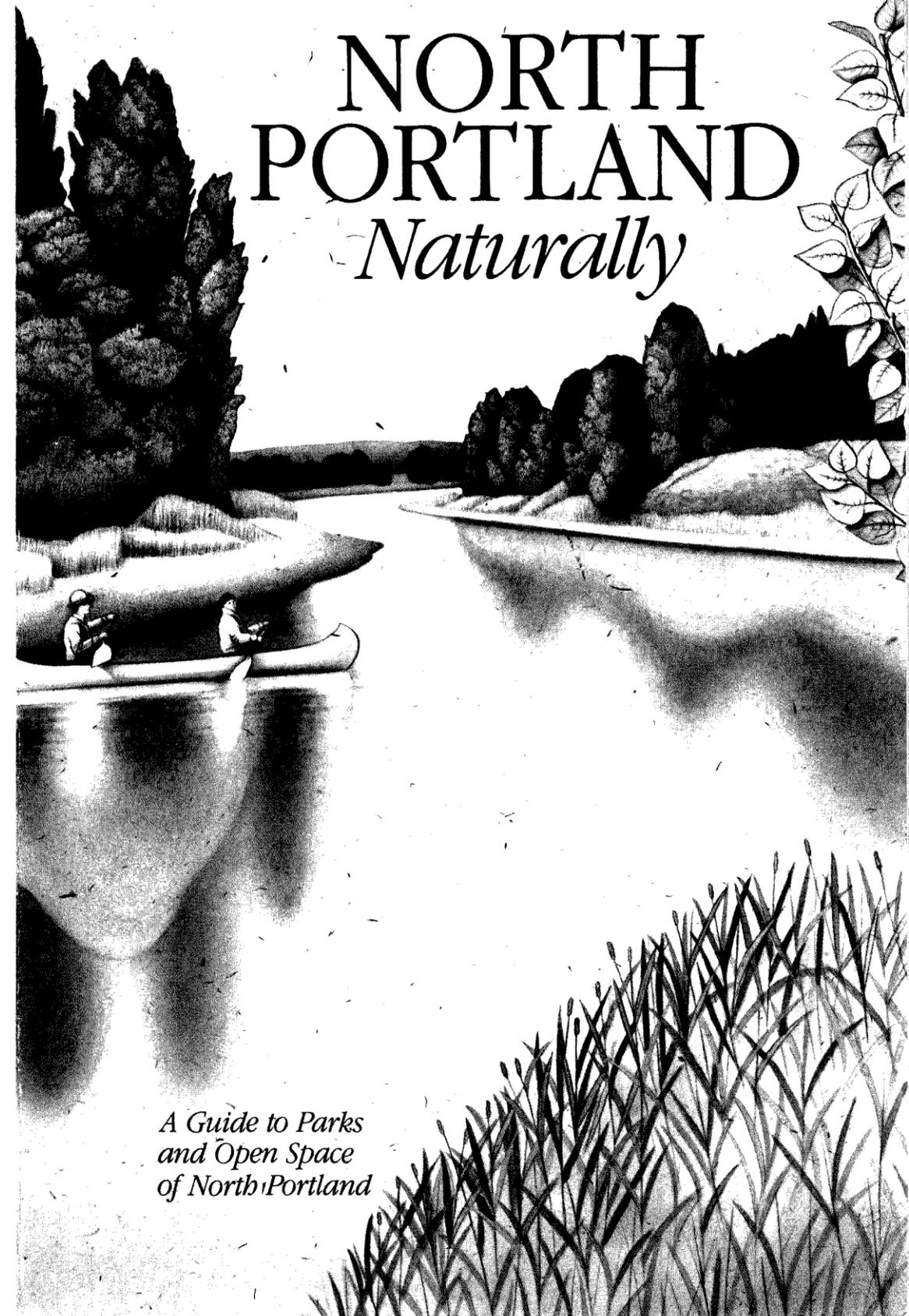
Portland Bureau of Environmental Services
1120 SW 5th Ave., Room 400
Portland, Oregon 97204
796-7757
(For information about the Columbia Slough project).

This brochure was funded in part by the North Portland Enhancement Committee. For information, contact the Metropolitan Service District, 2000 SW First Avenue, Portland, Oregon 97201, 221-1646.

Additional Funding:
Audubon Society of Portland
Bureau of Environmental Services
Bureau of Parks and Recreation
J.Y. Hollingsworth Co.
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Text: Mike Houck
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NORTH PORTLAND *Naturally*



*A Guide to Parks
and Open Space
of North Portland*



"Where the water flows, the positive benefits of open space are the clearest."

William H. Whyte
The Urban Outdoors, 1977
 Columbia Region Association of Governments report.

North Portland has a strong claim to the distinction of having some of the most beautiful scenery, wildlife habitat and open space in Portland. Wedged between the Willamette and Columbia — much of the Peninsula is watery flatlands. Its lakes, rivers, sloughs, swamps and marshes are home to ducks and geese, muskrat and beaver, mink and otter. This island of wildness is also important for people . . . a place to slip away from the hectic urban scene and to spend the afternoon trolling for bass and bluegill; watching birds and other wildlife or simply ambling through cottonwood forests.

An ochre ringlet butterfly "nectaring" on pink spirea blossoms.



A towering cottonwood provides a bird's eye view for two heron nestmates.

The Landscape

The Peninsula has changed dramatically since Lewis and Clark camped along the south shore of the Columbia River in 1806. What was once unbroken wilderness has steadily given way to agricultural, residential and industrial development. Still, through a combination of foresight and luck, there are significant remnants of the native landscape. The most important of these vestiges are the Columbia Slough, Smith and Bybee Lakes, Heron Lakes Golf Course and Kelley Point Park.

Columbia Slough

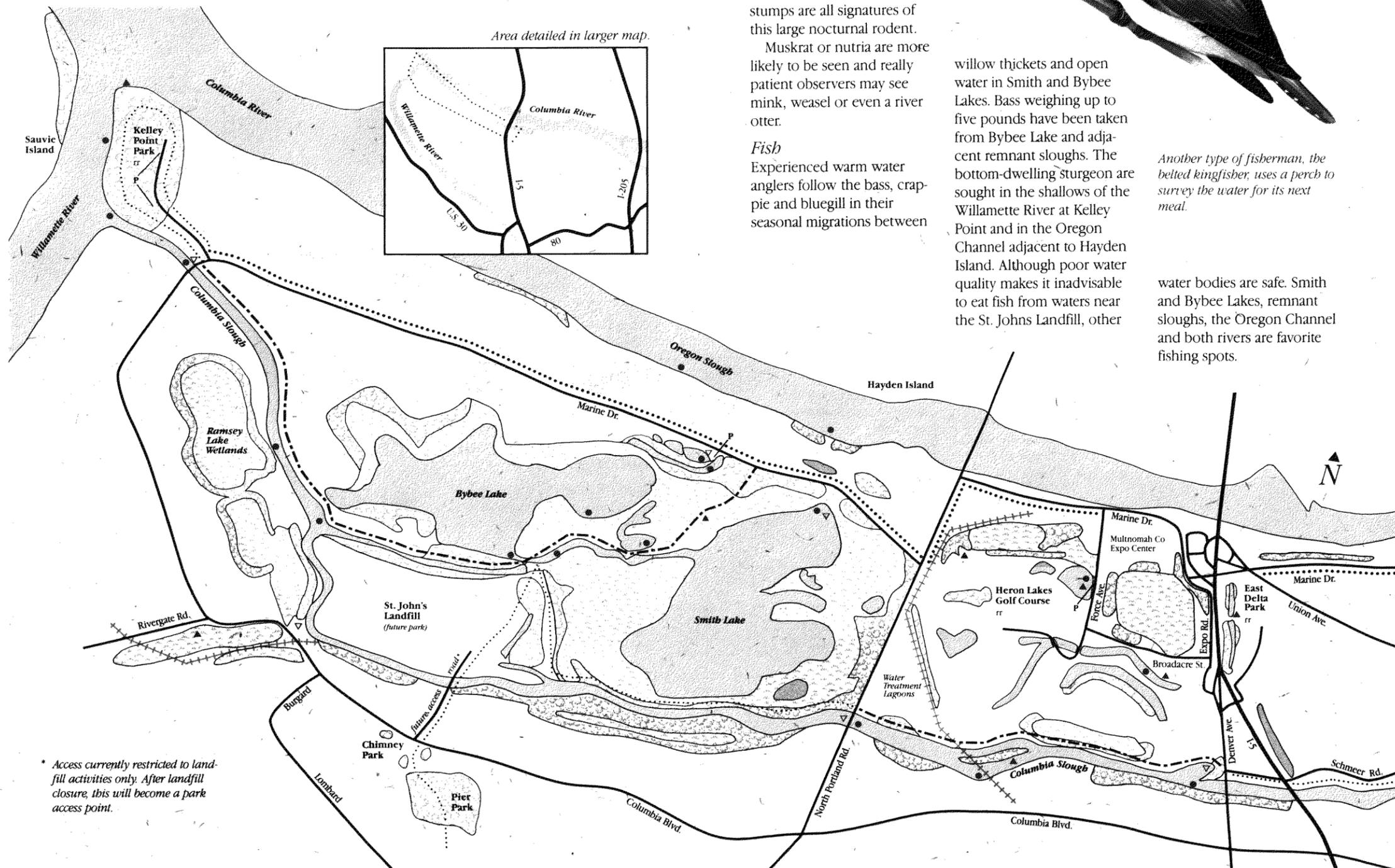
North Portland's watery wilderness areas are linked by the Columbia Slough. This ribbon of quiet water meanders almost eighteen miles westward from Fairview Lake toward its confluence with the Willamette River at Kelley Point Park. Along the way it provides refuge and food for a myriad of mammals, birds and other

wildlife. The "lower" Slough, which flows through the Peninsula, is perhaps the most pristine segment of the entire Slough system. Galleries of towering black cottonwood, Oregon ash and willow still line the Slough here and a thin, marshy wetland strip grows to the water's edge. This is also the only reach that remains under the daily influence of tidal action from the Willamette River.

Smith and Bybee Lakes

Joined to the Columbia Slough — as so many of North Portland's wetlands are — Smith and Bybee Lakes have almost 2,000 acres of open water, marsh and swamp. Here, as throughout the Columbia Corridor, Indians once harvested wapato, salmon and other foods. Today, the arrow-leaved "indian potato" is all but gone and salmon have largely been replaced by warm water fish such as

- Lake, Slough, Pond or Open Water
- Wetland — Willow Swamp or Marsh
- Forest
- Private Land
- 40-Mile Loop Trail (Bicycle)
- Proposed 40-Mile Loop Trail (Hiking)
- Future trail — currently accessible
- Good Birding
- Good Fishing
- Canoe Access
- Railroad Tracks
- Restrooms
- Parking



** Access currently restricted to landfill activities only. After landfill closure, this will become a park access point.*

Mammals

Most urbanites are surprised to learn that Oregon's state mammal is relatively abundant in our urban waterways. Although the beaver is infrequently seen, its sign is everywhere. Footprints in the soft mud, small twigs and limbs stripped of bark, and the telltale parallel tooth marks on willow and ash stumps are all signatures of this large nocturnal rodent.

Muskrat or nutria are more likely to be seen and really patient observers may see mink, weasel or even a river otter.

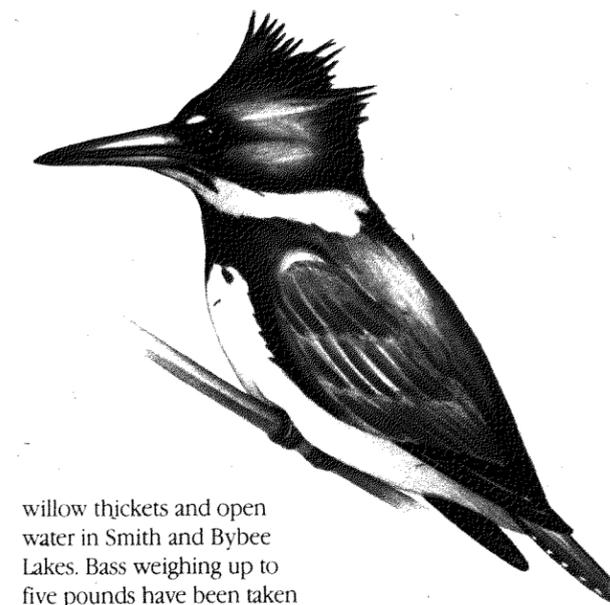
Fish

Experienced warm water anglers follow the bass, crappie and bluegill in their seasonal migrations between

willow thickets and open water in Smith and Bybee Lakes. Bass weighing up to five pounds have been taken from Bybee Lake and adjacent remnant sloughs. The bottom-dwelling sturgeon are sought in the shallows of the Willamette River at Kelley Point and in the Oregon Channel adjacent to Hayden Island. Although poor water quality makes it inadvisable to eat fish from waters near the St. Johns Landfill, other

Another type of fisherman, the belted kingfisher, uses a perch to survey the water for its next meal.

water bodies are safe. Smith and Bybee Lakes, remnant sloughs, the Oregon Channel and both rivers are favorite fishing spots.



Set aside urban wild lands

The long-awaited regional park study has given the metropolitan area a picture of how much park land it has. But the answer to one question only leads to another: How much park land should there be?

The Metropolitan Service District's inventory of all parks in the region should be no more than the first phase of the project. The study of existing parks inevitably drew the planners' attention to the open spaces not in parks — those substantial acreages of wetlands, wildlife habitat and other natural areas left within the urban community.

A logical second phase would record all of the open lands that are not contained within parks. Next would come consideration of how much should be preserved to strike a balance with development inside the urban growth boundary. Inherent in this phase would be a strategy for acquisition.

A California project, while hardly a perfect model for Portland, offers an example of preservation of open space in a city setting. The East Bay Regional Park District, which serves more than 2 million people, recently went through a similar process of identifying potential park land and

outlining an acquisition program. As an indication of how much urban dwellers may appreciate open space, the voters approved a bond measure of \$225 million.

Greater Portland is not looking at anything of that magnitude. But to know what it is looking at, the cataloging of natural lands must be done.

Richard Carson, Metro's chief planner, has turned up 10-year-old aerial photographs that should help. Comparing them with up-to-date photographs, Metro officials should be able to trace the recent trends on wetlands and wildlife areas. Then they can determine whether a change is in order.

Also available to help are Portland State University academic researchers and Mike Houck, the Audubon Society's urban naturalist, who can offer his vision of a metropolitan wildlife refuge system.

For all the growth that has occurred, the Portland area is still well-situated to blend preservation of natural resources with continued urban development. Best that it be done right while the opportunity exists. Future livability depends on studies made and decisions they produce in the next two years.

(continued from page 15)
records.

Drilling basalt is slow and troublesome compared to conventional boring. "On a difficulty scale of one to 10, I would probably give it a nine, for sure," says Washington state geologist, Ray Lasmanis. "There are two factors. One is the sheer hardness of the rock, but you also go from hard rock to the soft innerbeds."

These innerbeds pose aggravating complications by swallowing drilling material and squeezing shafts closed. In conventional oil terrain, a drill chews up 800 feet of soil per day. But in basin drilling it advances at only about five or six feet an hour.

"The penetration rate is about one-tenth of what we would see in, say, a west Texas environment," says Joe Kimmel, Shell's western operations manager. And costs soar. Conventional wells of similar depth cost from \$3 million to \$4 million. Price tags for Columbia Basin wildcats have been averaging about \$12 million, plus another \$2 million for follow-up testing.

Although its efforts continue to drain Shell's coffers, the company continues to drill, even when new well starts nationwide are at record lows. This year Shell launched its latest effort just outside George. The company has discovered gas at most, if not all, of its wells. The question is how much gas is *enough* gas. Its deepest effort, a 17,518-foot well on a bleak ridge atop Saddle Mountain in Grant County, apparently had yielded the highest gas volumes, about 3.1 million cubic feet per day. But as in previous attempts in Kittitas and Walla Walla counties, Shell plugged the Saddle Mountain shaft and walked away, saying volumes were too low to warrant commercial production.

A wildcat's odds of becoming a commercial well run about 5 percent, says Shell's public-affairs director Rich Hanson, who adds: "We remain cautiously optimistic." According to schedule, Shell's latest rig is expected to bottom out at 15,000 feet sometime this winter. If all goes well, several months of testing could follow. But don't look for a big announcement.

— CRAIG TROIANELLO

THE URBAN JUNGLE

Portland's nature-conscious plan to stay wild

TO MIKE HOUCK, the words "urban" and "natural" are not contradictory. But to help bring the two concepts closer together for the rest of us, Houck has proposed the country's first Urban Wildlife Refuge System for Portland. "It's important to let people know about the resources in their own backyards," he says.

by artificial city and county lines," says Houck.

If completed, Houck's Urban Wildlife Refuge System will make Portland the most nature-conscious city in the United States, linking its parks and open spaces into an officially designated natural-resource network.

The proposal already has a head start. In the 1970s, con-

completed by the time of the Lewis and Clark Exposition of 1905, the rest was forgotten in the economic boom following the world's fair.

Houck's proposal, still in the planning stages, would further guarantee land preservation and provide a structure for the city to accept new land donations. Eventually, Houck envisions informational signs throughout the city identifying Portland wildlife and its habitat.

Houck estimates all this would cost between \$200,000 and \$400,000 over the next four years, given staff salaries and other



Northwest Dr. Dolittle: Urban naturalist Mike Houck can find wildlife in just about anyone's backyard.

Houck, 41, has been teaching people about their own backyards since he started working for the Audubon Society as an urban naturalist in 1982. Portland residents often spot him roaming the city's open spaces, taking inventory of the wildlife and leading walking tours.

Houck's appreciative eye can spot diverse natural vegetation, wildlife nesting areas and small indigenous creatures in parks tucked among skyscrapers and condominiums. But even in these preserves, the survival of urban wildlife is tenuous. Most park policy emphasizes tennis courts and soccer fields, not wild grasses or migrating birds.

"Nature should be seen as a biological system, not separated

cerned residents developed the 40-Mile Loop Land Trust to save natural lands within city boundaries. Since then the "loop" has outgrown its name—it now measures 140 miles. Much of that acreage has been acquired, and more than half of the hiking, biking and canoeing network of trails is completed.

As far-reaching as the Urban Wildlife Refuge System plan may seem, it actually is Portland's *second* chance to develop such a comprehensive park plan. In 1903, the Portland Board of Park Commissioners hired preeminent landscape architects and brothers Frederick Law Olmsted Jr. and John Charles Olmsted to develop a master plan. While part of the Olmsted's work was

expenses. That seems a big commitment for a city with perpetual budget constraints, but the refuge proposal enjoys the support of Mayor Bud Clark.

Ironically, the Olmsteds speculated 85 years ago that someone like Houck would need to complete their work. "It is simply a fact that when [politicians] control the management of parks, the results... are poor, sometimes very bad indeed," the brothers groused in 1903.

Certainly they would be pleased with the first Urban Wildlife Refuge System. Says Houck: "The vision for the year 2000 is that people can hike and bike through Portland and always be close to wildlife."

— PETER CARLIN

women in N A T U R A L R E S O U R C E S

for professionals in forestry, wildlife, range, fisheries, recreation, and related social sciences

Vol. 9, No. 3 1988

EMPHASIS ON WILDLIFE

How Young People View
Wildlife

Wildlife Photography

The Business End of Natural
Resources

Partnership in Resource
Plans

Two Years in Sri Lanka
Forestry

Gender Differences in
Hunters

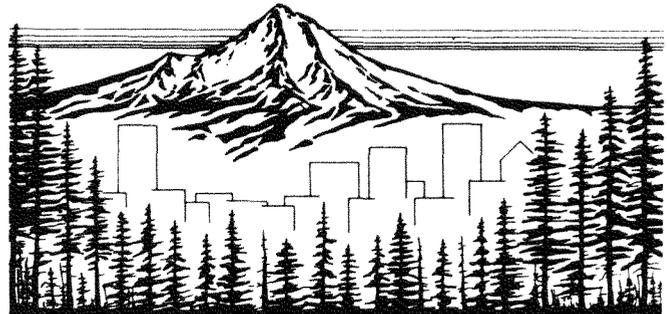


formerly women in
FORESTRY

Keeping the country in the city

Planning for Urban Wildlife in Metropolitan Portland Oregon

Esther Lev and Michael C. Houck



One of the most significant pieces of environmental legislation of the early 1970s to be passed in Oregon was Senate Bill 100, Oregon's state-wide land use law. As with the landmark bottle bill, the clean up of the Willamette River, and other progressive natural resources legislation, Oregon's land use program was initiated as part of the late Governor Tom McCall's environmental legacy.

The focus of the state-wide land use program was to protect farm and forest lands. Other natural resources were targeted via specific land use "Goals." In all, there are 19 Goals which address environmental, social, economic, and energy issues. Goal 5 specifically addresses fish and wildlife habitat, open space, scenic views, wetlands, and a variety of other resources.

The key element in the Goal 5 process is the Inventory. The land use law's administrative rule requires "jurisdictions" to carry out an inventory of Goal 5 resources (wetlands, wildlife habitat, etc.) in order to receive acknowledgement from Oregon's Department of Land Conservation and Development. This is true for both rural and urban jurisdictions. Although there are flaws in the enforcement of the Goal 5 program at the local level (Houck and Rogers, 1984; Houck, 1986; Frenkel and Frenkel, 1986), it offers the best opportunity for addressing wildlife habitat issues on private lands in Oregon.

The rule requires, unfortunately, that jurisdictions use only "the best information available," which often is lacking or incomplete. Few planning staffs in Oregon have expertise to collect the information required to afford true protection to these resources. Due to this limitation, citizen involvement, as required by Goal 1, is crucial. Neighborhood or conservation groups are often familiar with smaller urban wildlife habitats that can be valuable to an effective land use program.

A BALANCING ACT

Part of the process is popularly known as a "balancing of values" or, technically, an Economic, Social, Energy and Environmental (ESEE) analysis. An ESEE analysis must be done by the affected jurisdiction if there are potential conflicting land uses. In urban areas there are almost *always* such conflicts. All of the ESEE factors are balanced and a decision is made whether to: 1.) protect the resource fully; 2.) allow the

conflicting use with no resource protection or; 3.) modify the development to ensure some protection of the resource. This process is highly dynamic—and political—and requires public involvement through planning commission and city council hearings. Some conservation organizations actively involved in this arena include Audubon Society of Portland, the Wetlands Conservancy, and 1000 Friends of Oregon, a watchdog group formed by the late Governor McCall.

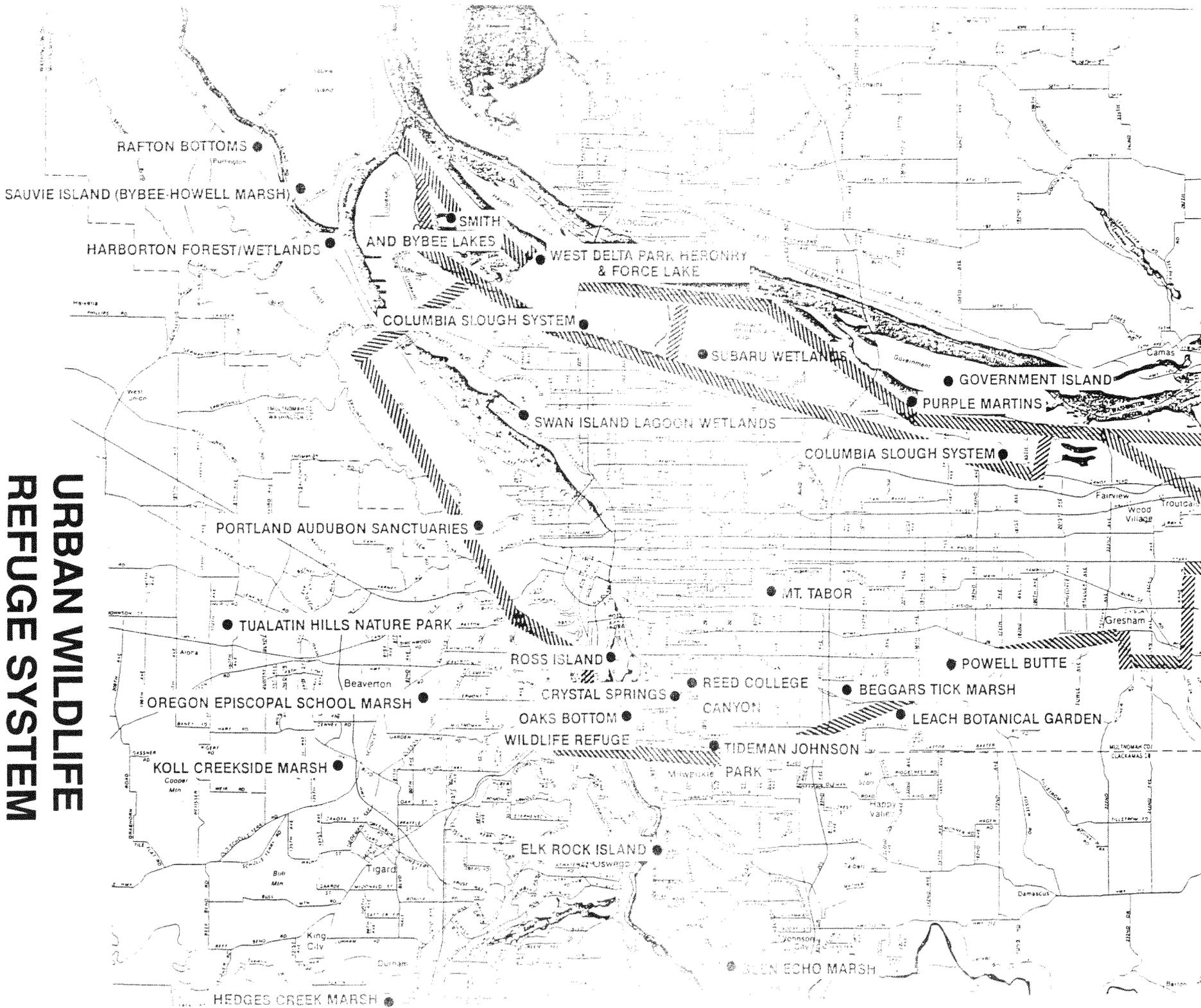
INVENTORY AND EVALUATION OF SIGNIFICANT WILDLIFE HABITAT

The following process describes one inventory methodology that has been used by four jurisdictions in the Portland area. It has evolved over a five year period through a program initiated by the Audubon Society of Portland funded by a grant from Oregon's nongame wildlife program.

The first inventory in 1981 utilized large scale (1:1000) planning maps with floodplain and forest overlays. The product was a *qualitative* description of all wildlife habitat in each of nine Community Planning Areas in suburban Washington County on Portland's western boundary. A land use conflict, however, in the nearby city of Beaverton—involving wetlands and riparian habitat—prompted the next iteration of the inventory methodology, because the city planning commission, city council, and planning staff demanded a *quantitative* inventory which allowed determination of relative "significance" of each of the 86 resource sites. As a result, a Wildlife Habitat Assessment Form (Fig 1) was developed cooperatively by the Oregon Department of Fish and Wildlife, US Army Corps, US Fish and Wildlife Service, and the Portland Audubon Society. This assessment form was then used in the Beaverton Goal 5 update and subsequently in Portland's Willamette River Greenway update (Houck, 1987) under state land use Goal 15 (Willamette River Greenway).

In 1986, Portland initiated its Goal 5 update by hiring two biologists to conduct its natural resource inventory using a modified version of the Wildlife Habitat Assessment Form. Because of its successful use in Portland, several other jurisdictions, including the Eugene metropolitan area, are currently using the same methodology.

URBAN WILDLIFE REFUGE SYSTEM



WILDLIFE HABITAT ASSESSMENT FORM

The intent of a *one* page rating sheet is to provide information that is easily understood by planners, policy makers and the public. There are numerous techniques that could be used to quantify wildlife habitat values. King County, Washington, (Seattle region) has developed, for example, a detailed and exhaustive quantitative wetland assessment evaluation that is one of the best examples of wetland assessment programs in the northwest. It is, however, complex, and requires extensive field work by professional biologists. Since biologically trained staff are uncommon and only the "best information available" is required in Oregon's planning process, a less complex and rapid-use inventory format is more suitable.

The one-page assessment sheet evaluates each site for its existing wildlife values. The rating system is based on three basic wildlife requirements: Food, cover, and water. Each site is evaluated for quantity, quality, diversity, and seasonality of these three factors. Other site attributes that are also considered include: Human and physical disturbance; habitat interspersed and unique biological features (rare plants or animals, rarity of habitat). Educational and scenic values, although considered important, were eliminated from the assessment form because they are not *biologically* important.

Another form, which is descriptive and qualitative in nature, is also completed for each site. The form includes physical parameters, vegetation, wildlife sightings, habitat function, human interaction and management potential information. It was felt that descriptive information was needed for each site (in addition to the Wildlife Habitat Assessment Form) to facilitate responsible land use decisions. Educational values are considered on this assessment form.

Portland has now completed much of the inventory and has begun the hearing process. The city is currently developing an Environmental Overlay Zone to achieve protection of significant natural resources. One of the several potential strategies to achieve that objective follows.

PORTLAND'S URBAN WILDLIFE REFUGE SYSTEM

The Setting

Portland is bisected by the Willamette River near its confluence with the Columbia River. To the west lie the Tualatin Mountains, which were upthrust along a long fault line ending in the city center. To the east of the Willamette rise numerous volcanic, forested buttes that dominate the flat terrain of east Portland. West of the Tualatin Mountains are the Portland suburbs of Beaverton and the unincorporated areas of the Tualatin Valley. The combination of buttes, Tualatin Mountains, and flat lands dotted with numerous wetlands and riparian corridors provide a great diversity of wildlife habitat in a highly urbanized setting.

Although much of this land is privately owned, many of the most significant natural areas are in public ownership. The City of Portland Bureau of Parks and Recreation, for example, owns more than 7,600 acres of natural park lands (Fig. 2). The bulk of this property is in Forest Park (4,800 acres), Smith and

Bybee Lakes (2,000 acres), Powell Butte (560 acres), and Oaks Bottom (160 acres). Forest Park and Powell Butte are upland mixed coniferous/deciduous forests while Smith and Bybee and Oaks Bottom (featured on the cover, this issue) are mixed wetland/riparian habitats.

The second major public landowner in metropolitan Portland is the Tualatin Hills Park and Recreation District (THPRD). Their natural areas are almost exclusively riparian corridors and freshwater marshes, a fact that reflects the flat terrain of the Tualatin Valley.

Recommended Urban Wildlife Refuge System

The Audubon Society of Portland has recommended the establishment of a regional Urban Wildlife Refuge System to the Portland Park Bureau, THPRD, and other park departments in the metropolitan area. The objectives of this recommendation are: 1.) To promote a comprehensive, metropolitan-wide management program for the care of significant urban natural areas; 2.) to promote appropriate use of sensitive natural areas by the general public and educational institutions; 3.) to provide an appropriate organization for the donation of significant lands or conservation easements by the private sector; 4.) to provide a system for research by natural resource agencies and the scientific community. Sites that would be included in the system would be park lands managed primarily for their wildlife values, with passive human recreational activities as an important element.

The Olmsted Vision, An Historical Basis

The idea for an interconnected system of parks is not new to Portland, nor to north America. In 1903, Fredrick Law, Jr., and John Charles Olmsted wrote a comprehensive plan for a City of Portland park system. That year, they did the same for Seattle. It was their father, Fredrick Law Olmsted, who had a key role in laying out New York City's parks. The Olmsted brothers envisioned in their 1903 masterplan an integrated park system that would include "scenic reservations, natural or semi-natural scenery...rougher, less artificially improved...and rural or suburban parks intended to afford visitors mental refreshment..." In addition, "A connected system of parks and parkways (that would be) manifestly far more complete and useful than a series of isolated parks."

Audubon's current proposal thus plays on an old theme, that of rougher, more natural areas for the benefit of wildlife and enjoyment of passive recreationists. It also adopts the thesis that an interconnected system is a better system. The Olmsted's "connector" was to have been a forty mile long system of boulevards and parkways, some of which exist today. The modern vision, however, is a more ambitious 140 miles as proposed by the 40-Mile Loop Land Trust, a local, non-profit organization dedicated to carrying out the Olmsted dream, but with a new twist. Rather than auto-dominated boulevards, the new Loop will consist of hiking, bicycling, and canoeing trails. Much of the 40-Mile Loop has been completed and, fortuitously, falls along many of Portland's most significant wildlife habitats.

Connecting, preserving, and providing public access to Portland's remnant natural areas is a high priority. Portland is moving forward on all three efforts through: Its land use (Goal 5) process; a new direction within the park system which recognizes the importance of natural areas, and; the proposed Urban Wildlife Refuge System.

A Place for Herons

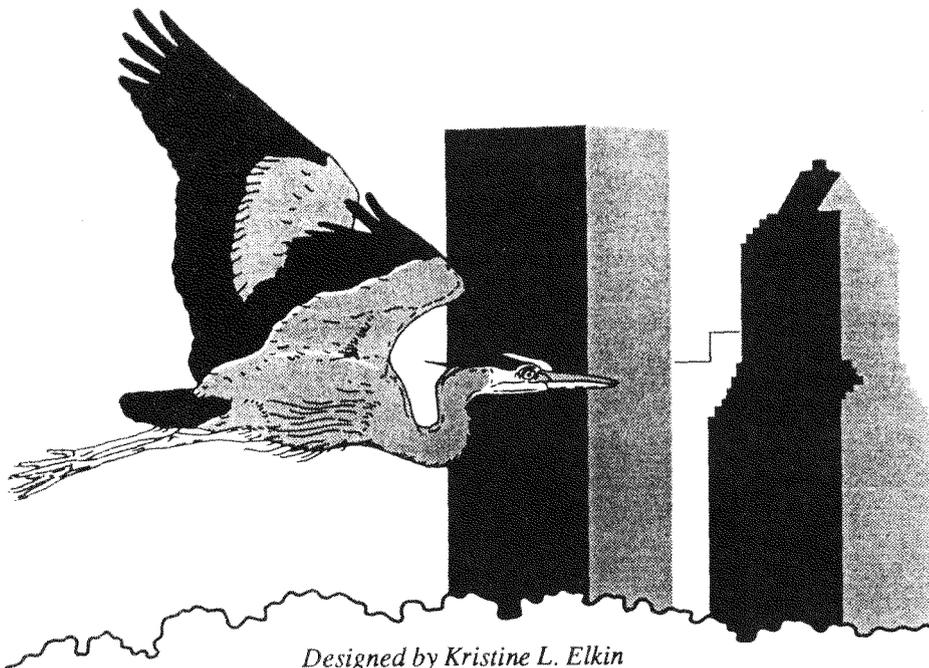
Perhaps the most heartening recent action taken by local government was Portland's City Council adoption of the Great Blue Heron as the official city bird in 1986. Implicit in that action was the recognition of the importance of wildlife in our urban environment and the symbolic role the heron plays in a city situated on two great river systems.

William Stafford, Oregon's Poet Laureate, best sums up the hope for the future of Portland's wildlife in a poem he wrote to honor the council's action.

Spirit of Place

Out of their loneliness for each other
two reeds, or maybe two shadows, lurch
forward and become suddenly a life
lifted from dawn or the rain. It is
the wilderness come back again, a lagoon
with our city reflected in its eye.
We live by faith in such presences.

It is a test for us, that thin
but real, undulating figure that promises,
"if you keep faith I will exist
at the edge, where your vision joins
the sunlight and the rain: heads in the light,
feet that go down in the mud where the truth is.



Designed by Kristine L. Elkin

Wildlife Habitat Assessment

UNIT NO	LOCATION	SQ FT	SCORE	DATE
COMMENTS				

COMPONENT	DEGREE			SCORE	COMMENTS
	NONE 0	SEASONAL 4	PERMANENT 8		
WATER	Quantity & Seasonality	STAGNANT 0	SEASONALLY FLUSHED 3	CONTINUALLY FLUSHED 8	
	Proximity to Canal	NONE 0	NEARBY 4	IMMEDIATELY ADJACENT 8	
	Stream Quality (Streams, Ponds, Wetlands)	ONE PRESENT 2	TWO PRESENT 4	THREE PRESENT 8	
FOOD	Variety	LOW 0	MEDIUM 4	HIGH 8	
	Quantity & Seasonality	NONE 0	LIMITED 4	YEAR AROUND 8	
	Proximity to Canal	NONE 0	NEARBY 4	IMMEDIATELY ADJACENT 8	
COVER	Structural Diversity	LOW 0	MEDIUM 4	HIGH 8	
	Height	LOW 0	MEDIUM 4	HIGH 8	
	Escape	LOW 0	MEDIUM 4	HIGH 8	
Quantity & Seasonality	NONE 0	LIMITED 4	YEAR AROUND 8		

ADDITIONAL VALUE				SCORE	COMMENTS
DISTURBANCE	PHYSICAL	TEMPORARY	UNDISTURBED		
	HUMAN	HIGH 0	MEDIUM 4	LOW 8	
	INTERSPERSION	LOW 0	MEDIUM 4	HIGH 8	
	UNIQUE FEATURES 0 - 4	WILDLIFE FOOD CLIMATIC	RARETY OF HABITAT TYPE	EDUCATIONAL POTENTIAL	

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REFLECTIONS

ENCOUNTERING THE COUNTRYSIDE—II

LANDSCAPES, in the view of some land-use experts interested in a regional approach to development, are now showing themselves to be a cake that you can eat and have, too. People can build on a landscape, that is, without eating away at it. All this seems to take, as the regionalists—an informal coalition of local government leaders, college researchers, environmentalists, and volunteers—have pointed out, is a simple, slight shift in the way people look at a place; then, almost abruptly, they can notice areas nearby that still present a countryside sense of kinship, or partnership, or community and companionability. They may find a sizable wilderness that has been flourishing just beyond their own field of vision since some early industries shut down, or a small valley of fields and meadows spared many decades ago by the farsightedness of a railroad president, or a miniature landscape, like the two-acre Klein farm in Queens—the last family farm in New York City, where a two-hundred-year-old tradition of working with the land has been held in place because one family has seen to it that agriculture remains a New York City industry.

People are now finding such a variety of opportunities for landscape connectedness that some regionalists have started to ask themselves why it is that a “both/and” sense about landscapes—the idea that places can change within an over-all context of continuity—is only now becoming widespread. These regionalists are beginning to think that the opposite point of view—an “either/or” approach to landscapes—was an early by-product of the environmental and social dislocations created during the first years of the industrial revolution, two hundred years ago, and that ever since, often without realiz-

ing it, Western Europeans and Americans have been carrying around with them as part of their mental baggage a deeply felt and despairing assumption that progress demands degraded surroundings. You put up with such surroundings as long as you have to, and you run away from them as soon as you can afford to, but, this belief has it, deteriorated landscapes and debased communities and bad smells and hideous noises are simply a given—something we all have to live with.

In a book called “Placeways: A Theory of the Human Environment,” published in 1988, Eugene Victor Walter, a retired professor of sociology who taught at the Harvard Medical School and Boston University, looks at the interactions of people and places, and demonstrates that slums are a late-eighteenth-century phenomenon, brought on by the change of thinking that accompanied the industrial revolution: a new idea about places took over (a “new topistic ideal,” he calls it), and it became acceptable “to segregate good and bad experience,

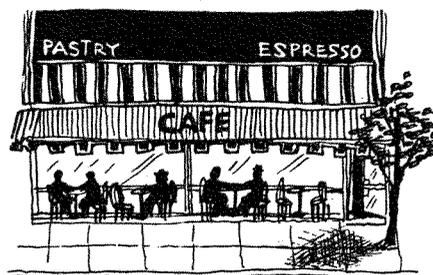
locating wealth and illth in separate spaces.” (“Illth” is his word for poverty and ill health.) Walter’s work confirms earlier social-geography studies by the architect and planner Clarence S. Stein, who served as chairman of the New York State Commission of Housing and Regional Planning in the nineteen-twenties. In a 1925 article in *Survey Graphic* titled “Dinosaur Cities” Stein noted that New York City’s first housing shortage and slum areas appeared in downtown Manhattan during the eighteen-thirties, when the city was in the middle of its first great development boom and population explosion, brought on by the opening of the Erie Canal, in 1825. Manhattan had a hundred and twenty-four thousand residents in 1820 and nearly triple that number in 1840, and the only response of the city’s prosperous families to the new industries and the new immigrants was to move away, in a series of hops, one every generation, “proceeding up the length of Manhattan Island,” an associate of Stein’s wrote, “and submerg-

FROM:
THE NEW YORKER
8-28-89

ing in time the quaint little colonial villages of Greenwich, Chelsea, and Harlem.”

Imposing residential neighborhoods were thrown together—almost overnight, it seemed—on top of old fields and pastures. And only a few doors down from the rows of new houses you could expect to find elegant new stone churches: their serene, lofty spires created a new skyline, which looked as though it might last for centuries. Across the street from the houses and the churches you might find yourself stepping into a meticulously maintained new private park, such as St. John’s Park (close to where the entrance to the Holland Tunnel is now) —“a spot of Eden loveliness and exclusiveness,” as it was called in the eighteen-forties. That park was enclosed by a cast-iron fence, laid out with gravel paths, and planted with

flower beds and specimen trees, which, according to Charles Lockwood, a New York architectural historian, included catalpas, cottonwoods, horse chestnuts, and silver birches. But such neighborhoods proved ephemeral, no more than elaborate tent camps along an inexorable and restless flight to the north: in 1866, Cornelius Vanderbilt bought St. John’s Park for a railroad freight depot, and today all traces of that, too, have disappeared. But, as



M. IAN

Clarence Stein pointed out, one of the consequences of running away from the problem rather than solving it was that New York “never caught up with its original shortage” of housing, and settled instead for a permanent state of crisis—a state that eventually began to seem a natural condition.

By now, people in this country have been subjected to so many landscape upheavals that the both/and idea about landscapes—that new uses can always find a way of working together with longtime partnership uses—may sound at first like wishful thinking or, at best, a dubious oddity of some sort, as if the Klein farm’s linking together of modern New York and old rural Flushing were just a gimmick or a happenstance or a tourist attraction.

Recent work in a number of research fields, such as education and health

care, has been advancing the regionalist approach by making it clear that certain essential human activities, including both learning and healing, can be enhanced when they take place in a setting that offers people countryside connections in addition to the support systems already in place. By the early nineteen-nineties, it will be possible to see what some familiar small-scale institutional settings will look like once they've been recountrified, so to speak. In some ways, oddly, they will resemble certain very early photographs of New York City, taken in the mid-eighteen-fifties. In England, a three-year-old national research program—the Learning Through Landscapes project—is under way to investigate how schools can restructure paved and windswept schoolyards to give them a countryside look and so provide “a complete environment for learning.” The idea is that “the landscape in which the school stands . . . can provide a rich and stimulating resource and setting . . . for learning and teaching.”

The study is based on a number of modern research findings, such as a UNESCO survey of children's needs, which was written about by the late urban planner Kevin Lynch, of the Massachusetts Institute of Technology. Lynch was the first person to write about mental maps and landscape connectedness, and he was able to show that people's interior pictures of their surroundings grow more vague and unreliable when connectedness is taken away from them. In the UNESCO study, summarized in the book “Growing Up in Cities,” Lynch compiled interviews with children from Argentina, Australia, Mexico, and Poland about their reactions to their surroundings, and found that no matter where they came from—it might be an inner-city neighborhood, a provincial capital, or a rural village—“the hunger for trees is outspoken and seemingly universal.”

Another modern researcher, Colin Ward, the education officer for the Town and Country Planning Association, in London, has written that “the rural needs of the urban child are not just the sights of the farm or the pleasures of running untrammelled through the woods or exploring the country park. They include vital personal experiences and discoveries like silence, solitude, and the sensation of

utter darkness.” Neglecting children's rural needs, according to Roger Hart, director of the Children's Environments Research Group at the Graduate Center of the City University of New York, can impair their healthy development as adults. “Part of being a responsible adult is having a sense of responsibility for the environment,” he says. “And you can only care for something you've grown to feel a part of.”

The Learning Through Landscapes project also represents, according to some observers, part of a belated attempt to put into practice a previously ignored countryside component of the educational teachings of the nineteenth-century German educator Friedrich Froebel, who is best remembered in this country as the inventor of the kindergarten—“an environment in which children grew freely, like plants in a garden,” he said. Although in Prussia in the eighteen-fifties kindergartens were banished for nine years as subversive institutions, they have since flourished throughout the world—without, for the most part, a countryside setting. But, according to Froebel, children need more than toys, games, music, dedicated teachers, and a pleasant classroom in which to develop

their intellects and their feelings. In Froebel's formulation, which was based in part on the many days he spent outdoors as a child—his stepmother had no time for him—people are created both as wholes and as parts; that is, they have to learn how to function both as separate individuals and as participants in larger patterns that include harmonious relationships with other people and with all of life. And, Froebel asserted, it was only outdoors that a person could learn empathy with the rest of creation: “On the first spring day [when] the shining sun beckons through the window and the clear blue sky is seen through it, the doors open as if of themselves,” he wrote, and kindergarten children, once they are out on a nature walk, not only are immediately open to the “new observations and perceptions for which God's free world offers occasions” but also notice within themselves “increased feelings of life”—sensations that serve as powerful positive reinforcement for closely observing nature and opening up to it. Froebel also thought that nature study, and all the other pleasurable activities of kindergarten life as well, should form a part of the curriculum of higher schools: “Possibly our sons may

thereby finish school life a year or two later; but is it not better that they should thereby attain a worthy aim than . . . an illusory one?"

Writing a few years after Froebel, Frederick Law Olmsted, according to his biographer Albert Fein, suggested that college campuses also needed to be thought of as a "total environment," and proposed that if campus buildings were set around a common open space, like the town green in a New England village, this would foster a social connectedness that would exert "an incalculable effect on future attitudes." By the time Olmsted began working on college designs—including fragrant and visually complex plantings in the grounds of Gallaudet University, in Washington, a college for deaf students—New York City had turned away from such notions, and Columbia College had been squeezed into a cluster of institutional buildings in midtown, on Madison Avenue. An old photograph I have seen shows the

original, late-eighteenth- and early-nineteenth-century campus of Columbia College when it was way downtown in Manhattan, a couple of blocks southwest of City Hall. In the picture, taken by a former president of the college in 1854, the trees are not in leaf, but you can still barely see the main building, because the elms on the green in front of the old structure are so thickly crowded together.

The ideas in a celebrated 1984 study by Roger S. Ulrich, a University of Delaware geography professor, "View Through a Window May Influence Recovery from Surgery," published in *Science*, have been incorporated into the design of a hospital in Newport, on the Isle of Wight, off the southern coast of England. Professor Ulrich, who is now at Texas A & M's College of Architecture, found that over a nine-year period gall-bladder patients who could see a cluster of trees instead of a brick wall outside their hospital window "had shorter post-operative

stays" and "took fewer moderate or strong" painkillers. Richard Burton, who is one of the architects of St. Mary's, the new hospital on the Isle of Wight, had been asked by British health authorities to design a structure that had space for more art work and at the same time used less energy than conventional hospitals. One of his design solutions was to place the hospital in the middle of a large public park whose centerpiece is a duck pond fringed with willows. You can stand on a solarium balcony at the end of one of the wards and look down two stories and out at a lawn and the pond, with a few willows, a reed bed, and a couple of old oaks and pine trees nearby. Raising your eyes, you can see beyond the houses and warehouses of a Newport suburb in a small valley to hilltop fields, woods, and pastures on the horizon, two miles away.

An old photograph of the original site of New York Hospital in Manhattan, in what is now a warehouse and office district northwest of City Hall, shows a building set far back from the street, behind a large lawn and two stately rows of elm trees. Lying in bed, you can't see many trees from the high-rise windows of the current New York Hospital, on the Upper East Side of Manhattan, but the hospital does operate a separate psychiatric hospital, in White Plains, which is in a two-hundred-and-thirty-acre park with landscaping designed by Olmsted. The future of the Olmsted landscape is now in doubt, though: the hospital has announced that it wants to develop most of the property in order to have more money for health care.

The city of Boston has approached the Isle of Wight model of health care, but there's still something missing: In the nineteen-seventies, under a program called Urban Wilds, Boston began protecting undeveloped city lots that had long been untouched and had remained often spectacular natural areas—woods, wetlands, meadows, rock outcroppings. More than nine hundred acres have since been permanently set aside as public open space—a figure that may one day be expanded to include a lush hilltop meadow in Mission Hill, where, behind a profusion of wildflowers, you can just make out the distant, shimmering tops of Boston's downtown skyscrapers. This meadow is close to, but not next to, New En-

gland Deaconess Hospital, which is on the same hilltop but has no such view, because what was once half of a much larger meadow—the half closer to the hospital buildings—has been paved over and surrounded by a chain-link fence, and now serves as the hospital's staff parking lot.

New work in the field of social medicine is beginning to discover further possible public-health connections of trees and meadows with human settlements; for instance, there is the idea of "the enabling environment," which Susan Toch, an environmental planner, defines as the unbreakable connection between the condition of the environment in an area and the well-being of the people who live there. As a graduate student at the University of Waterloo, in Ontario, Toch, who was one of the first researchers to look into this relationship, discovered during field work in the Île-de-France that health authorities should be able to set up a new generation of "integrated epidemiological studies." These studies, once completed, would link medical and ecological factors and would show direct spatial correlations between ecological damage, such as damage to lichens in the Île-de-France (lichens are sensitive to air pollution), and the specific illnesses people get, such as respiratory disease or cardiac distress.

Susan Toch says that while "the inherent links between medical and ecological information are rarely acknowledged," volunteer work she did in France with a local emergency medical squad showed her where integrated epidemiological studies of the area could begin to collect evidence: she found that local pharmacists often learned about new environmental problems long before the regional public-health officials did. Talking with small-town druggists, she discovered a new kind of early-warning system: when something gets into a town's water supply that can give people stomach aches, not every household will know right away that people are getting sick, or why, but within a single day the local drugstores will often be selling more than twice the usual number of stomach-settling pills and syrups, and the druggists will have started putting together a picture of the problem. Toch says that, just as canaries used to be taken down into coal mines to act as "indicators" for coal

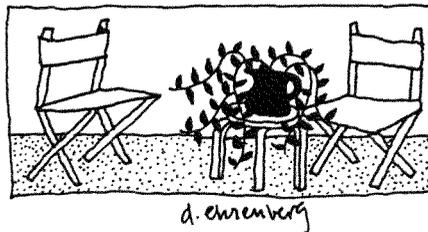
gas, because the birds would be affected by it long before the miners could tell that anything was wrong, these days we have to be our own canaries, and the people in the French towns have become "indicators" for a problem with the water supply. In other words, a major part of the business of taking care of the environment has to do with learning how to keep at least one eye on ourselves.

SOME of today's regionalists, among them Professor Robert D. Yaro, the director of the Center for Rural Massachusetts, which is a research institute at the University of Massachusetts—Amherst, think that there's a fourth reason (beyond the urgency of the moment, the opportunities at hand, and the evidence from related fields) that small regionalist projects can find a welcome in this country in the middle of the largest national development boom in American history. That is that such projects are not doing anything innovative, after all; they're only resuming work, on some jobs and some principles that were fully spelled out in "The New Exploration: A Philosophy of Regional Planning," a recently rediscovered and now much pored-over book by an American forester and planner named Benton MacKaye, which was first published sixty years ago. In the nineteen-thirties, MacKaye was a co-founder, with Aldo Leopold and several other conservationists—many of whom had served in the United States Forest Service—of the Wilderness Society, a nonprofit group set up in Washington to promote wilderness preservation of federally owned forest and other land. And a dozen years earlier, in New York, he had joined with Lewis Mumford and Clarence Stein and a few other planners and architects who had taken an early interest in land-use reform to set up the Regional Planning Association of America, an informal clearing house for new thinking, which incubated many of the land-reclamation and

social-development policies later put into effect by the New Deal, such as flood control, rural electrification, and the reforestation of logged-over mountain tracts by the Civilian Conservation Corps.

Until only a few years ago, when some of the new regionalists in this country began prowling the stacks of local libraries in search of old copies of "The New Exploration," MacKaye (the name rhymes with "high") was remembered primarily as the father of the Appalachian Trail, which in 1937 became the first two-thousand-mile-long hiking path in the United States and the first interstate ridgeline greenway park: a linear inland strip of wilderness that parallels the Atlantic Ocean and runs from mountaintop to mountaintop down the East Coast. The trail begins on the top of Mt. Katahdin, in Maine, and eventually climbs to the top of Springer Mountain, in Georgia, after crossing through fourteen states.

Two more long-distance interstate trails are now being blazed through wilderness lands—these in the Western United States. The Pacific Crest Trail, twenty-five hundred and sixty miles long, is almost a mirror image of the Appalachian Trail; it's a ridgeline path along the Cascades and the Sierra Nevada that parallels the Pacific Ocean and extends from Canada to Mexico. And the Continental Divide Trail, through the peaks of the Rockies, will eventually provide a hiking path of more than three thousand miles between Canada and Mexico, once the Forest Service and other groups select and mark a route for the Colorado-New Mexico-Mexico segment of the trail. All three trails are now National Scenic Trails, and thus part of the national-park system. And two years ago the President's Commission on Americans Outdoors, a bipartisan panel established by the Reagan Administration to think about the country's recreational needs in the first decades of the twenty-first century, proposed creating a national "green mosaic" of hiking trails, jogging trails, bicycle paths, bridle paths, and scenic highways and byways—a "network of greenways across the country" that would link every community to all the state parks, state forests, national parks, and national forests in the country, and "tie this country together with threads of green that everywhere grant



thinking" development covers an area with "structures whose individual hideousness and collective haphazardness present that unmistakable environment which we call the 'slum.'" He went on to explain, "Not the slum of poverty, but the slum of commerce. . . . These souls live all in a single environment: not city, not country, but wilderness—the wilderness not of an integrated, ordered nature, but of a standardized, unordered civilization." MacKaye's prose is always pungent: "A rootless, aimless, profoundly disharmonized environment" is his description of standardized development.

This is the immense threat—that when we lose one set of connections we end up severed from all connectedness. "Together," MacKaye says, the three elemental environments "seem to form, when normally developed, a com-

us access to the natural world." The commission also proposed setting up a new national outdoor trust fund authorized to spend up to a billion dollars a year to help bring the green mosaic and other recreation projects into being. The commission's chairman, Governor Lamar Alexander, of Tennessee, wrote to President Reagan that he foresaw, as he tried to look ahead, "a prairie fire of concern and investment" to preserve and create outdoor opportunities for the next generation of Americans.

Since MacKaye's proposal for an Appalachian footpath is still less than seventy years old—he first mentioned the idea in an essay published in 1921—the recent national embracing of his plan might make him seem a worthy minor prophet whose mission has come to fulfillment in an unusually short time. But, from the first, in every paper and book he wrote, MacKaye was really talking about something larger, about landscape connectedness and the role it can play in a special kind of enabling environment. For him, making wilderness hiking a regular part of American urban life was simply one element in a new national undertaking

that could diminish some of the impact of the automobile; halt the headlong, panicked flight from blight; and, at the same time, reinvolve all modern Americans in the patterns of kinship and partnership and neighborly and intellectual connections that can operate in what he called "three basic 'elemental environments,'": natural landscapes, working landscapes, and cities—or, to use his terminology, "The Primeval," "The Rural," and "The Urban."

And there was more than this. In "The New Exploration" MacKaye talked again and again, in almost quantifiable terms, about the effect that making or breaking daily landscape connections inevitably has on the lives of large populations. To paraphrase MacKaye's underlying formula slightly, what he saw happening could be expressed as "three minus one equals zero" but "one plus one plus one equals four"; that is, people's lives are immediately diminished whenever their connections with any one "elemental environment" are blurred or broken—because, he said, the "personality" of a place evaporates whenever "un-

complete and rounded external world adapted to man's psychologic needs." But "depletion in any one of them means a corresponding depletion in man's life." MacKaye also points out an unsuspected quality inherent in all properly connected places. When all three of the elemental environments are readily available to people, he says, they form the terrestrial basis of "a fundamental world of man's needs as a cultured being"—a basis that makes possible a kind of collective forethought, or anticipation of the future, which is otherwise not ordinarily available. "A higher estate in human development," MacKaye calls this at one point, and he also refers to it as "a gradually awakening common mind."

The promise here is that people properly grounded in a complete and rounded environment could begin to get a better feeling for the day-to-day aspect of the many multigenerational decisions in modern life—those actions we initiate which pile up assets or debts for our children and grandchildren. If our own landscapes could help us live more lightly, it would be easier for us to feel the weight we were piling on

the backs of people who will be arriving here in a few years. Human consciousness, with its multiplicity of awarenesses, evolved in surroundings that provided several kinds of connectedness to the "common mind." We're only now learning that there's yet another, concealed danger in indiscriminately altering the environment: by inadvertently severing connectedness and thus dulling some of our own awareness, we can begin systematically ignoring our surroundings without quite realizing that our alertness has faltered; we can damage natural systems; we can put our own safety and health in peril.

For MacKaye, thinking about connectedness evoked regional thinking, because he thought you would need to have a piece of land at least thirty miles by forty in order to set up an urban area, a rural area, and a wilderness area big enough to function on a sound economic and environmental footing; he called such an area a "regional city." And a transregional project such as the Appalachian Trail was more than just a delivery system that would bring countryside connections to your front door and link small regions together. It would be an underpinning for all the landscapes of—in this case—the Eastern United States: a framework that would give stability to local wilderness areas and partnership landscapes, and would also nourish and replenish them, by serving as a source of supply. Lewis Mumford wrote in 1962 that it was instantly apparent to the regional planners of the early nineteen-twenties that the original Appalachian Trail proposal was a "decisive departure" from previous plans for paths and trails. "I well remember the shock of astonishment and pleasure that came over me when I first read this proposal," Mumford wrote. MacKaye had "conceived this new trail as the backbone of a whole system of wild reservations and parks, linking together by feeder trails into a grand system, to constitute a reservoir for maintaining the primeval and the rural environment at their highest levels."

MacKaye realized early in his life that landscape connections are often unwittingly severed by major technological innovations, and that transportation systems in this country always serve two functions: they move goods from place to place, and they are put to use by America's internal immigrants

—the people fleeing the approach of industry and slums by moving to new neighborhoods. Long before the first interstates were built, he could see that automobiles would have a decisive effect on the dynamics of urban flight, because, unlike canal boats and railroad trains, they could head in almost any direction. In one of his most memorable phrases, MacKaye declared that in the twentieth century "Pygmies have become centaurs"—meaning that people pulling up stakes could now range far and wide. "The weakling man, seated in his motor car with hand on wheel and foot on lever, becomes a locomotive." But the Appalachian Trail, together with similar trans-regional dikes and ramparts of countryside that might be created in the future, could be thrown across the path of the motorcars. "Here is the barrier of barriers," MacKaye wrote about the Appalachian Trail, within a "world-empire of industrial and metropolitan upheaval." It was, he said, "the backbone levee of the whole Atlantic border from Canada to Georgia."

The countryside, in other words, could rescue the cities, because a reshaped countryside would now be an urban design, too—a means, Mumford wrote in his 1962 essay, "of designing a better urban pattern for the flow of population that was already making the whole coastal area from Boston to Washington into a formless 'conurbation,' as Patrick Geddes had long ago called it, before Jean Gottmann, in a recent study, gave it the less accurate name of 'megalopolis.'" As MacKaye saw it, you changed people's mental maps by first altering their physical maps: the partly completed Appalachian Trail of the nineteen-twenties had "already laid, both on the ground and in the public mind, the thread on which to weave . . . the main open way across the metropolitan deluge issuing from the ports of the Atlantic seaboard," he wrote, and "this open way, when once it really opens, would form the base throughout eastern populous America for controlling the metropolitan invasion."

For some of today's regionalists, to read MacKaye and then find on a road map of the Eastern United States the dotted red line of the Appalachian Trail, connecting dozens of national forests, state forests, and state parks, and even two national parks—Great Smoky Mountains National Park, in

Tennessee and North Carolina, and Shenandoah National Park, in Virginia—"makes it impossible for any of us to feel like a pioneer," one of them told me recently. He went on, "But that is more than made up for by finding ourselves to be members of an established American profession. Sometimes I think the only way to describe MacKaye's impact is to rewrite the Johnny Appleseed story, because I get a feeling that's almost like growing up in a country where no one has ever even heard of apples, and then, when news about apples finally makes its way to you, you look outside and see that there are apples hanging outside your window, ready to eat. And then you find out that two generations ago someone came through the area planting a few apple trees, which you had always assumed were just ornamental shrubs. And then you see that there's a package with your name on it, left behind by the apple planter, and inside are more seeds, a couple of shovels, and detailed instructions for setting up an orchard."

MACKAYE never thought of himself as an innovator. In "The New Exploration" he wrote that the pattern of the regional city "is no invention of mine nor of any other single human brain" but "is merely an attempt at the restoration, and extension through modern instrumentalities, of the basic scheme of regional development, which arose naturally and spontaneously in the endeavor to adapt a given American setting to certain fundamental human desires." And, quoting an early essay by Mumford, he reminded his readers that in the years before nineteenth- and twentieth-century transportation schemes set off wave after wave of urban flight regional development had normally been of service to "man's evolution" by creating for people a connectedness that widened their "mental and spiritual horizon." The public value of regions had increased at the same rate as private-property values. By 1850, according to Mumford, "the communities that were planted on the seaboard and up the river valleys during the seventeenth and eighteenth centuries . . . had achieved their maximum development; they had worked out a well-rounded industrial and agricultural life, based upon the fullest use of their regional resources through the water-wheel, mill, and farm, and they

had created that fine provincial culture, humbly represented in the schools, universities, lyceums, and churches, which came to a full efflorescence in the scholarship of Motley, Prescott, Parkman, and Marsh, and in the literature of Emerson, Thoreau, Melville, Whitman, and Poe."

Because MacKaye made it clear that regions can begin to work as enabling environments only when all three of the elemental environments that serve to define a region can offer a well-rounded range of public values, some regionalists in this country now see reason to pay special attention to America's working landscapes. First of all, to play catch-up—since working landscapes in the nineteen-eighties are often the environments that have the least protection and are disappearing the most rapidly. New York State, for example, has recently lost vast amounts of farmland; close to a million acres went out of production just between 1982 and 1987. At the same time, city people have been rediscovering natural areas inside their own borders. In a new book called "Urban Wilderness: Nature in New York City," by Jean Gardner, with photographs by Joel Greenberg, there's a picture of tall evergreens, crisp, fresh-fallen snow, and a roaring waterfall; the picture turns out to be a contemporary view of the Bronx River.

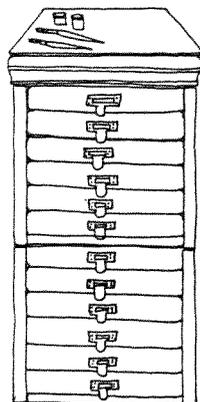
"New York City has one of the most diverse natural environments of any American city," Gardner has said. On her master list of the "natural complexity" in the city are, among other features, a pine barren, a hemlock grove, estuaries, rivers, and even one of the highest elevations along the Atlantic coast (Todt Hill, on Staten Island). New York City now has more than nineteen thousand acres of parkland that are being officially preserved as wild countryside; in the nineteen-seventies, the ninety-one-hundred-acre Jamaica Bay Wildlife Refuge, in southern Brooklyn and Queens, was turned over to the National Park Service and became part of the Gateway National Recreation Area; and then, in 1984, the city's Parks Department got into the wilderness business itself, setting up a new Natural Resources Group to develop management plans for seven thousand

acres of undisturbed woods, wetlands, meadows, and meandering streams inside dozens of city parks in the five boroughs.

Wilderness areas are actually increasing in New York City. Last summer, Mayor Edward Koch and Henry Stern, the city's parks commissioner, created City Hall Meadow by personally scattering wildflower seeds on a small triangle of dusty land near the entrance ramps to the Brooklyn Bridge; and a New York State environmental-conservation program is now financing the efforts of a volunteer group devoted to restoring the most densely built-up section of the Bronx River's banks—several miles south of the waterfall. In a still more ambitious project, a Buffer the Bay program, launched in 1984 by the New York City Audubon Society, later joined by a national nonprofit land-conservation group named the Trust for Public Land, has targeted several broad, quiet tidal creeks and other natural areas around Jamaica Bay as new city parkland. These creeks were left out of Gateway for a variety of reasons, and if they could be added to the parkland in the city, says the Audubon Society's conservation-committee chairman, Albert F. Appleton, "These natural-habitat areas would become greenways that would bring Jamaica Bay across the Belt Parkway and into the neighborhoods of South Brooklyn and South Queens."

Hiking trails and bicycle paths—greenways of a more conventional sort—are also under construction in New York. The grandest of these is the Brooklyn/Queens Greenway, a forty-mile-long bicycle path and pedestrian path from the Atlantic Ocean to Long Island Sound. This is a project of the Neighbor-

hood Open Space Coalition, an alliance of a hundred and twenty-five community-gardening and environmental groups in New York, and it has been designed as a ribbon of open space that will unite thirteen city parks, two botanical gardens, and several eminent New York City cultural institutions, including the New York Aquarium, the Brooklyn Museum, and Shea Stadium. The plan is getting a warm reception in New York; the city's transportation commissioner, Ross Sandler,



Brooklyn/Queens Greenway, and it's also possible, by adding only the smallest of detours, for the Brooklyn/Queens Greenway to start giving people a taste of working countryside: the Queens section of the path, as it is now planned, will cut through Cunningham Park on a route that is only a few hundred yards east of the Klein farm. In MacKaye terms, though, the two-acre Klein farm is nothing like a working-landscape reservoir, only a clear-running spring.

Robert Yaro, of the Center for Rural Massachusetts, who is an associate professor of regional planning at the University of Massachusetts—Amherst, is a former Boston city planner who went on to become chief planner, and then deputy commissioner, of the Massachusetts Department of Environmental Management. Yaro has spent much of the nineteen-eighties on two aspects of the working-landscape-supply problem: first, finding the regional reservoirs before they're all drained by approaching development; and, second, setting up local management plans for all identified working landscapes—plans that treat working

landscapes as regional assets. When you act locally while thinking regionally, Yaro says, you welcome growth and new development in working-landscape areas but you also arrange any changes around two unchanging principles: you keep at least fifty per cent of the land in production—a big enough block so that the farmers in an area can make a decent living—and you conserve the rural character of the place, the existing sense of connectedness, by seeing to it that new buildings capture the spirit of the place. Doing that, Yaro explains, is mostly a matter of thinking about creating two kinds of views at once—the views *of* a new building, and the views *from* it—and involves finding sites for buildings that let them fit in with the contours of the land and at the same time offer “uninterrupted views across long, open fields or pastures, permanently protected from future development.”

Benton MacKaye, in the nineteen-twenties, thought that the population of a “regional city” could increase by more than forty per cent without any loss of connectedness, provided that the newcomers settled only in new villages

within the working landscapes of the area, so that the old central city of the region stayed at its original size, and nearby wilderness land was left completely unoccupied. MacKaye's vision was a challenge to traditional either/or planning methods, and also called into question the conventional real-estate practice of calculating equity values by looking only at the rise and fall of private-property values in an area. In such an expanded definition of equity, the public value of a landscape or a neighborhood formed a permanent surplus, which could always be enriched during a development period that made private-equity values rise. And, when public value went up, private value would go up along with it; for example, people would be willing to pay more for a new house in a beautiful setting that had a beautiful view. But, at the same time, public value had to be treated as a separate equity account, with an established minimum balance that was never available for conversion into private value by speculators or through old-fashioned landscape-skimming techniques, such as building a new house that gives its owner a

says the completion of the greenway is now "a historical imperative," and a *News* editorial has called it "an urban version of the Appalachian Trail." Tom Fox, the executive director of the Neighborhood Open Space Coalition, says that the Brooklyn/Queens Greenway, which he would like to see completed by 1995, can increase the reach of existing open spaces in a way that will help millions of city people feel closer to the out-of-doors: half the population of New York lives in Brooklyn and Queens, but only nine per cent of Brooklyn, and only ten per cent of Queens, is parkland.

A third greenway system now being planned for New York—a project by the city Parks Department to restore bicycle paths along the Shore Parkway in Brooklyn and Queens—will eventually link the first two greenway projects by creating, at its eastern end, a fourth greenway, the Brooklyn/Queens South Shore Greenway, or Blue-and-Greenway, as Parks Department planners have nicknamed it. As currently proposed, the Blue-and-Greenway would be a bicycle path, running east and west. that would cross all the Buffer

the Bay wilderness greenways extending north from Jamaica Bay. And, several miles to the west, the Shore Bikeway, which is being planned as the western extension of the Blue-and-Greenway, will meet up with the southern end of the Brooklyn/Queens Greenway on the boardwalk at Coney Island.

And even this isn't the end of it: Hooper Brooks, the director of a new Regional Open Space Program at the Regional Plan Association, which is a private, nonprofit planning agency in New York, is drawing up a "greenway framework" for the whole New York metropolitan area; it would take in, among other large-scale projects, the hundred-and-fifty-mile-long Hudson River Valley Greenway, which now has the sponsorship of Governor Mario Cuomo. One element of the Regional Open Space Program, a Palisades Conservation Plan, would be visible from New York City. It's a plan for a fifteen-mile-long greenway that will protect the cliffs along the Hudson River which cut through ten New Jersey towns just west of Manhattan. To make the Palisades Conservation Plan

work, the Regional Plan Association is suggesting that all ten towns agree to two kinds of growth controls. First, no future structures built on the flats below the Palisades could ever obstruct any of the panoramic views you can get at the top of the cliffs: the Hudson River down below; the Manhattan skyline straight ahead; the open sky above it all. And, second, any new building put on the flats would have to preserve one of the feelings still available on the land down at the foot of the Palisades—the sense that your nearest neighbors include towering dark-red basalt cliffs almost two hundred million years old.

But what about the working landscapes of the New York metropolitan region? In Benton MacKaye's definition, regional connectedness needs such landscapes as much as it needs greenways, because delivery systems can bring you only those qualities which pour into them from reservoirs. It's possible to hook up a local wilderness reservoir, like Jamaica Bay's twelve thousand acres of marshland, upland, and open water, to a city greenway, like the forty-mile-long

stunning view but spoils the views from all the other houses within, say, a five-mile radius.

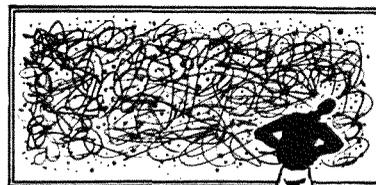
MacKaye never actually built a regional city, but he did keep suggesting strategies for getting started; he thought, for instance, that "modern inventions" like electric power and commuter buses would make the job easier. And in "The New Exploration" he found several ways of expressing a central idea, which was that designing and caring for a regional city would always mean working directly with connectedness—with "the vital forces, rhythms, and aspects of definite desirable environments," as he put it at one point. "The job is not to 'plan' but to *reveal*," MacKaye said, by which he meant that what gets added to a place is less important than what you can stay close to. MacKaye also said that you remodelled a place through living in it, and reminded his readers that the point of developing a region is "not so much an affecting of the countryside as of *ourselves* who are to live in it." Almost at the end of his book, MacKaye confessed to a certain doubt about the task ahead: "The forces set loose in the jungle of our present civilization may prove more fierce than any beasts found in the jungle of the continents—far more terrible than any storms encountered within uncharted seas. . . . Can we control their flow before it controls us? Can we do it *soon enough*? This is a crucial question of our day. What instructions can we issue to our modern-day explorer (whether technician or amateur) to guide him in coping with this modern-day invasion?" But then optimism returned, and he wrote, "Our last instruction to our new explorer and frontiersman is to hold ever in sight his final goal—to reveal within our innate country. . . . *a land in which to live*, a symphonious environment of melody and mystery."

Yaro says that regionalists can now show that MacKaye's innate optimism was well founded, and that several of his predictions about regional growth were highly accurate, among them the one about the ability of rural areas to take on large numbers of new non-farming residents while preserving a partnership sense created by generations of farming families. MacKaye had specifically estimated in "The New Exploration" that the rural population of a regional city could grow

without any difficulty from a low of around four thousand to a high of about twenty-three thousand—an increase of almost five hundred per cent in the number of working-landscape residents.

In "Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development," a new book by Yaro and three associates, the Center for Rural Massachusetts presents a full-length analysis—complete with photographs, site plans, model bylaws, and vivid full-color drawings of future construction—of how a large, three-hundred-year-old working landscape can absorb high suburban densities of development over a forty-mile stretch of river terrain without jeopardizing future private-property values or sacrificing its ancient partnership sense. All the new housing would be detached single-family homes, as in most existing suburbs (research by the Center for Rural Massachusetts has shown that the average New England family still dreams of having a house and a lawn that are all its own), but the net gain in density would actually be higher than what is permitted in most suburbs, and closer to what you'd expect to find in a residential neighborhood of a small city, because the "Design Manual" makes room for the same number of people that could ordinarily be accommodated only by blocks of attached row houses. Yet in the "Design Manual" studies none of this growth would bring about the look of even a low-density suburb; the whole region, all forty miles of it, would still look like a working landscape and function as a working landscape.

The basic design ideas in the "Design Manual" are that most new houses, shops, and offices should be gathered together in clumps, usually at the far edges of open fields, and that, wherever it is possible, existing villages and woods should be used as closets for higher density—places where new construction can be neatly stowed away



without diverting attention from partnership values. The proposed bylaws give meticulous consideration to the question of just how visible new projects can get, stipulating, say, the kind of "softly illuminated" nighttime signs that would be appropriate in front of roadside stores, so that you'd still have a sense of driving through moonlight and starlight.

The landscape under examination in the "Design Manual" is the Pioneer Valley—a local name for the Massachusetts portion of the Connecticut River Valley, and, more specifically, for the small towns and broad expanses of richly productive riverfront farmland between Holyoke and the Vermont–New Hampshire border which have remained essentially unchanged since the seventeenth and eighteenth centuries. The long view north along the river, particularly from a vantage point such as the summit of Mt. Holyoke, at the southern end of the rural portion of the valley, became a famous tourist attraction in the early nineteenth century, so the Pioneer Valley, like the Hudson River Valley, is a place where even the partnership sense has been carefully documented over the years, by landscape painters and by writers. For instance, there's "The Oxbow," Thomas Cole's gigantic, panoramic, thundercloud-laden canvas of the gliding sailboats and golden haystacks and grazing sheep, the plumes of smoke from farmhouse chimneys, and the soaring, wheeling birds he saw from the peak of Mt. Holyoke in 1836—a painting that hangs in the Metropolitan Museum of Art. Standing on that peak several years earlier, Timothy Dwight, the president of Yale University who became America's first epic poet, called the scene before him "the richest prospect in New England, and not improbably, the United States," and "a collection of beauties to which I know no parallel." And in his book "Travels in New York and New England" Dwight wrote, "When the eye traces this majestic stream, meandering with a singular course through these delightful fields, forcing its way between these mountains, exhibiting itself like a vast canal . . . it will be difficult not to say that with these exquisite varieties of beauty and grandeur the relish for landscape is filled."

The Pioneer Valley has already absorbed some conspicuous nonfarming

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uses without compromising its integrity. It contains five major colleges—Smith, Amherst, Mount Holyoke, Hampshire, and the University of Massachusetts. And since the late nineteen-sixties the valley has attracted so many craft workers—more than a thousand of them, including potters, weavers, woodcarvers, calligraphers, jewellers, glassblowers, blacksmiths, silversmiths, printers, bookbinders, and people who make musical instruments—that it has acquired a new reputation, as an East Coast Santa Fe.

Now the natural countryside in the Pioneer Valley is coming under the guardianship of several new Connecticut River regional environmental programs: in Connecticut, Massachusetts, Vermont, and New Hampshire—the four states along the river's four-hundred-and-seven-mile course from the Canadian border to Long Island Sound—over nine hundred million dollars in federal, state, and local funds has been spent since 1970 to improve water quality in the river, and in 1987 the Nature Conservancy, which operates the largest privately owned nature-preserve system anywhere in the world, set up a Connecticut River Protection Program to save seven thousand acres of wild areas near the river, such as floodplain forests and riverside grasslands—"the best of the river's remaining natural communities," according to a recent issue of *The Nature Conservancy Magazine*, including all "those that still possess enough biological integrity to maintain themselves as functioning systems well into the future." Dennis Wolkoff, who is the Nature Conservancy vice-president in charge of the Eastern Regional Office, says, "The Connecticut River is the ecological thread that ties New England together."

There is so much at stake in the Pioneer Valley that the "Design Manual," with its proposals for concealing density, has already caused something of a sensation in planning circles: a development company known for carving up whole mountains into small lots bought a hundred and ten copies of the book for the use of its acquisitions-and-planning staff; the American Society of Landscape Architects gave the book a design award in 1988 as one of the best landscape books of the year; and both the water commissioner of Texas and the director of a national rural-planning institute in West Germany have

asked for copies. But Bob Yaro, who considers himself a close student of Benton MacKaye, has a slightly different, and more complicated, explanation for the instant success of the "Design Manual."

Yaro thinks that the conclusions in the "Design Manual" are workable only because two more MacKaye hunches about development have turned out to be true: areas can conceal density only by working directly with connectedness, and the process of working with connectedness is politically acceptable, because it's basically a democratic procedure rather than something outsiders can control or impose—all they can do is tap into local people's hidden expertise about connectedness ("The job is not to 'plan' but to *reveal*"). What MacKaye couldn't guess was that, in a post-interstate boom, there would be a couple of additional, equally compelling reasons for building a region around connectedness: it's cheap, and you can get it done quickly, while there's still a landscape around you to work with. And there was a gap in MacKaye's thinking—the gap that led him to have doubts. He didn't see the full force of the discouragement built into people after two hundred years of development decisions that ignored connectedness. Yaro discovered early in his career that to attract people's interest to regionalist projects he needed to take the psychology of regional planning one step beyond MacKaye's work: often, he found, before you could hope to make the public value of a place part of the local process of thinking about land-use decisions you had to take a preliminary step, which involved reconnecting people to their own sense of connectedness. Ever since, the first part of any Yaro project, urban or rural, has involved revalidating connectedness and helping it to find a voice.

PART of Yaro's approach has to do with learning how to avoid any oncoming development storm. "When I was growing up, in the nineteen-fifties, my grandparents had a farm outside Hartford, in a place called Andrews Corners, where their farm was actually one of the four corners of a crossroads," Yaro told me one day at the University of Massachusetts faculty club. "The farm was surrounded by orchards, and there was a skating pond

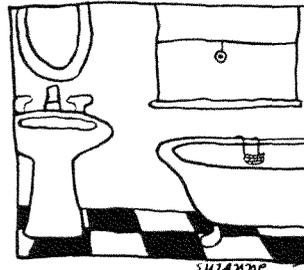
for the winter, and blueberry bushes for July and August picking. By the time I was a teen-ager, the three other corners were being filled in, and there were supermarkets and gas stations standing on old farmland. By the time I got out of college, my grandparents' farm had become a regional shopping mall. Almost all the regionalists I know have had this kind of experience growing up—it's what gets them started. Part of the appeal of a movie like 'Back to the Future' is that it lets you see instantly what going back thirty years can do—the suburban mall vanishes, and old fields and barns reappear. One of the few human rights that aren't officially guaranteed in this country is an agreement that the places you grow up caring about will be there for you when you're ready to start a family of your own.

Yaro paused, and then said, "Until very recently, it seemed as though we had two land ethics in the United States—five per cent of the nation was set aside as national parks, and treated as special places where we talked about things like 'America the Beautiful' and 'We, the People.' This was neutral territory, but it seemed that different rules had to be obeyed through most of the rest of the land: either 'Take the Money and Run' or 'Private Property: Keep Out.' But all the time, the first land ethic was in place inside vast numbers of people who would have told you if you'd asked them—and I have—that they never thought about the land and didn't have an opinion on the subject. But, given the right setting, the right evocation, the right stimulus, many of those people who put themselves in the 'Don't Know' column turn out to be very articulate and outspoken concerning the special qualities they care about in their own communities. People can become vehicles for places. These are the feelings and this is the understanding now bubbling up from real people who live in real places—and, as a result, there's a ferment in the country about land values that hasn't been seen since MacKaye was writing, in the nineteen-twenties. Even the environmental movement in the nineteen-seventies didn't tap all these concerns; at first, we were paying so much attention only to clean air and

clean water that I used to think that any visitors from outer space would immediately ask each other, 'Are these creatures really *terrestrial* beings?'

"Of course, where the environmental movement did get involved with land-use issues, as in the case of wetlands, hardened attitudes began to melt in short order, and we now have a tremendous amount of official machinery to protect swamplands, which a generation ago were thought to be disease-ridden, and places that generated only poisonous, putrid miasmas. In the meantime, the legal system has caught up with the biology. I think we're now maturing as a nation in our thinking about land-use issues. Until very recently, much of the rationale behind American economic-development plans boiled down to something close to 'Put up a shopping center, hope that it will eventually create some jobs nearby, and then call it a success.' And now—it's fascinating—here we are, living in an era in which New Jersey doesn't want to be New Jersey anymore: it helped build a consensus for land protection on Cape Cod last summer when people who had given up all hope heard the governor of New Jersey declare that he was going to save the Jersey coast by limiting development. After that, discussion began anew.

'You can't buy back the Cape,' some people said. And other people started to say, 'They shouldn't be allowed to treat Cape Cod as if it were any old place.' A new approach to community development is in the making—one that asks



people to think about the long-term needs of a place and of all its residents. We're in the process of building local institutions that take over the job of looking after public value on a volunteer basis, and we're learning how to reinvest in areas so that they'll be more valuable to the next generation than they are to ours. After all, the postwar era has been this country's great age of wealth, and during such periods you're supposed to embellish your civilization and your country with something that can endure—like the Roman aqueducts. Most of what we've been doing is throwaway stuff—it can't be sustained. Sometimes part of the problem is learning how to bypass

the gatekeepers—the entrenched local interests who can think only about increasing real-estate values. I think we can now show that stewardship springs from connectedness—it gives people back a sense of thinking responsibly on behalf of the whole community, and it sends a shiver up the spines of the gatekeepers, by reminding them that someone can take away their keys.”

Yaro smiled, and went on, “It’s not development that causes problems—only *patterns* of development. And since the country now needs at least a couple of million new units of housing every year just to keep even with population growth, if we start constructing houses now that build public value for the future we can create a new national pattern of development within thirty years. I began working on this problem fifteen years ago, when I had a job as a neighborhood planner in Dorchester, an old blue-collar section of Boston. It was bleeding to death, because the people there thought there was nothing left in the community they could hang on to. The housing stock in the area was in fact sensational—Victorian mansions and big old triple-decker, three-family frame houses. These houses have now been rediscovered and sell for as much as a quarter of a million dollars, but at the time Dorchester folks were just walking away from them, and you could get one for eight thousand or less. My colleagues at City Hall and I devised a strategy—we started with the easy stuff. We got a couple of neighborhood houses listed on the National Register of Historic Places, and we conjured up a new name for the area—Melville Park. Then we organized tours, and got members of the Victorian Society in Cambridge and Wellesley—people who had ignored Dorchester for years—to visit the stately homes of Melville Park on Saturday afternoons. It worked. People stopped moving away—because if people from the suburbs would stop by, people who could choose to live anywhere, it had to be a decent place to live.

“When I moved over to the Department of Environmental Management, I found I could apply the same kind of thinking to whole cities, and it was still just as important to start with the easy stuff, because D.E.M. was an absolute bargain-basement type of operation,

with a consistently low budget. The Massachusetts Miracle was under way—an economic-development boom in a state that had been a backwater for decades. But because this was a boom of the modern era most of the development headed straight for the prosperous suburbs, and federal statistics officially classified twenty-nine of the thirty-five cities in the state as economically distressed. It was already a policy of the Dukakis administration to do something about this—‘We don’t throw away cities,’ Mike Dukakis had told all his state agencies—and there was a hazy notion abroad that it might be possible to give cities a lift by setting up urban state parks that had some kind



of education-and-preservation component. My Melville Park days had taught me how to find the special qualities of a place that supposedly didn’t have any left. A few of us began to think that a park, bringing a visible physical improvement into the heart of a city that hadn’t had a nickel of private money invested in it for fifty years, might turn out to be a new way of attracting developers’ attention. In Lowell, we looked at the magnificent old mill buildings downtown, and we later went down to Fall River, a riverside city of a hundred thousand people, more than half of them Portuguese families who used to fish for a living. In Fall River, we walked along the waterfront and found only rubble-strewn lots, chemical tanks, and gas tanks—and not one single foot of public access.

“We set up what we called Urban Heritage State Parks on these two sites, and they were followed by new state parks in a dozen other Massachusetts cities, as part of an ongoing project that has now cost the state a hundred million dollars. And so far that public investment has generated half a billion dollars of spending by private developers. The property right next to the new parks has shot up in value, but most of the private money—I’d say up to eighty per cent of it—gets spent on projects in other parts of the Urban Heritage State Parks cities. Now each one of these cities is considered a good place to live and do business in—a place that has been officially recognized as special enough to deserve a state park of its own. Most important, these places are back on their feet and are pulling their own weight, thanks to

what the easy stuff helped bring about."

ONCE the urban parks had become a repeatable success, Yaro turned his attention to another problem—the countryside. Bringing the cities back into the economic mainstream meant that something like a fifth of the private money for new economic development could be redirected from the suburbs to the downtown. But four-fifths was moving outward from the suburbs and grabbing at the working landscapes just beyond the last streets of houses. Was there any way for the state not to throw away the countryside? Yaro and his associates, still operating on a shoestring, worked out a two-step approach to the question. The first step involved giving specialness official recognition, as embodied in the Department of Environmental Management's "Massachusetts Landscape Inventory," a two-hundred-and-sixty-eight-page book published in 1982. The follow-up step, which had to do with hooking into local connectedness, was launched in 1988, when the Center for Rural Massachusetts brought out the "Design Manual," with its local strategies for protecting one of the distinctive landscapes previously identified in the "Inventory."

The "Massachusetts Landscape Inventory," which surveys five million acres of land, was put together mainly by three and a half people—Neil Jorgensen, a geologist, Mark S. Finnen and Harry L. Dodson, two landscape architects, and Bob Yaro, as a part-timer, shuttling between projects. The group was able to avoid making invidious comparisons—deciding, say, whether the Berkshires are more beautiful than Cape Cod—by a simple device. They divided the state up into six "physiographic regions," large areas with broadly similar landscapes and cultural characteristics, and then looked for the best landscapes in each of them. The regions were the Coastal Plain, the Seaboard Lowland, the Central Uplands, the Connecticut Valley, the Berkshire Hills, and the Taconic Section. Massachusetts had a history of inventorying its scenic features—an earlier survey had been made in 1929. But the 1929 report, which led to protection for Mt. Holyoke and other outstanding natural features of the state, largely ignored its working landscapes, though the state was then still

forty per cent farmland. Farmland seemed an endless resource in the nineteen-twenties and, besides, it was considered to be just "ordinary" scenery.

By the early nineteen-eighties, the situation had changed: three-quarters of the farmland in the state had disappeared between 1950 and 1980. The new inventory-takers therefore knew they had to work fast. But they found that they had two obstacles to overcome. They could turn to knowledgeable local people for hints about where to get started, but even the most concerned local people tended to be hazy about sites a few miles away from their own villages. So the surveyors had to weave together a series of local suggestions in order to get a complete picture of the distinctive qualities of a region. Also, it turned out that, even in the nineteen-eighties, existing American scenic-assessment techniques concentrated exclusively on natural features, such as mountain ranges and waterfalls; farmland, it seemed, was still officially an "ordinary" commodity. So Jorgensen, Finnen, Dodson, and Yaro adopted a scenic-assessment method used by the Countryside Commission of Scotland—a technique developed to give "a central position" to landscapes that have "undergone centuries of human influence," according to the "Inventory." The Scottish work could be welcomed in New England, according to the completed "Massachusetts Landscape Inventory," because "while the primeval forests of Massachusetts were undoubtedly beautiful environments, today's second-growth forest provides only limited internal views in most areas"; that is, as the "Inventory" went on to explain, "in a region of generally subdued topography, second-growth forests tend to limit visual quality. If cultural, agricultural, and historic landscapes did not exist in Massachusetts, scenic areas would generally be limited to the seashore, lakes, rivers, wetlands, and the few areas of sharp relief."

Working with the tips provided by local landscape authorities, the survey team pored over topographic maps published by the United States Geological Survey, looking for basic information they could spot-check in the field, such as changes in elevation, whether the land was open or wooded, and the likelihood of coming across vistas. The maps also helped them rule out areas with very little potential. Then they

drove around the state looking at everything they had heard about or found on a map and, back in the office, prepared new maps, on which they ranked as "distinctive," "noteworthy," or "common" the landscape features in each of the physiographic regions. When they totalled their findings, four per cent of the land in the state, about two hundred thousand acres, seemed to deserve a "distinctive" rating, and five per cent, or a quarter of a million acres, could be considered "noteworthy."

The rankings didn't change the legal status of any Massachusetts landscapes, although the Department of Environmental Management at once adopted the "Massachusetts Landscape Inventory" as a guide for future purchases of state parkland. But three years later, in 1985, the "Inventory" listings gave farmers in the towns of Ashfield and Hawley, in the Berkshire Hills, a way of successfully resisting the United States Air Force, which had announced plans to build a "telecommunications facility" on a six-hundred-acre hilltop potato field straddling the Ashfield-Hawley town line. The main components of the facility were to be thirty-one freestanding antennas, ranging in height from two hundred and forty feet to three hundred. The antennas would have been lighted at night, and they would have been clearly visible from the summit of Mt. Greylock, the highest point in the state, twenty miles to the west.

Farmers at first pointed out that potatoes were already a dwindling crop in Massachusetts, and that the field the Air Force was looking at represented ten per cent of the potato-growing land left in the state. The Air Force, in its reply, said that the field was suitable for antennas in part because farming had already made the ground clear and level. And an Air Force spokesman also said that the site had been selected "because of its remoteness, so it isn't in someone's back yard." The site was, however, in the middle of one of the "distinctive" landscapes mapped by the "Massachusetts Landscape Inventory," and, as a result, James Gutensohn, the commissioner of the Massachusetts Department of Environmental Management, toured the site with the state's agriculture commissioner, Gus Schumacher, and both officials later announced their opposition to the project. They were joined by Silvio Conte,

the area's congressman (who sits on the House Appropriations Committee and threatened to cut off the airplane allowance), and by the *Boston Globe*, which declared in an editorial that "the antenna farm is wrong-headed and ill-advised," and urged the Air Force to start looking elsewhere. Several months later, the Air Force agreed to do so. Last year, the "Inventory" won a second major victory when the New England Power Company withdrew plans for a new coal-fired generating plant on a "distinctive" landscape at the north end of the Connecticut River Valley.

Harry Dodson, who is also one of the co-authors of the "Design Manual," suggests that the "Inventory" serves another statewide, or region-wide, function, beyond helping to protect landscapes from such encroachments: by assembling a comprehensive and panoramic picture, it enables different groups of people to detect the distortions lodged in their own thinking about landscapes. "What we're often finding is that people in any area have at least two levels of feelings about their region," Dodson told me. "And these feelings don't always quite mesh—some of them are clear-eyed visions, and others are based on squinting, and very few people have ever sorted them out. There's usually a broad consensus among local people on the special places in their own neighborhoods—though they may not be aware of how widely shared their own attachments are until someone brings them together and starts a conversation on the subject. At the same time, they may hold very odd views about areas beyond their daily reach. Many state officials who work in Boston, for instance, think of Massachusetts as the United States in miniature, and for some of them the Connecticut River Valley is the boonies, a place as far away as the Great Plains. 'How's your view of the Rockies?' is a typical state-house joke. This is all because of the Snow Belt, as it's called. There's heavy snow every winter in the hills west of Boston, so Bostonians have decided that the valley is unreachable. One result is that most of the tourists we get in the valley come from New York State and not from eastern Massachusetts."

According to Bob Yaro, there is one more piece of landscape thinking that often needs rearranging before the

countryside of America can be considered safe. Land-use decisions in New England are made by local towns, and there are more than a thousand towns in the six New England states. The trouble is that many of these towns think they have already protected their open spaces by adopting one-acre or two-acre zoning—a guideline that guarantees the preservation of at least a full acre of unbuilt land between new houses. What the towns don't seem to be able to see in advance is that those zoning laws actually require them to suburbanize, because a town that has one house on each acre is a town that has open space but no openness. As Yaro says, the only land left over is in "pieces that are too big to mow and too small to plow."

Greenbelt Alliance, a nonprofit regionalist group in the San Francisco Bay Area, has developed a new technique for showing an area which of its towns are most immediately threatened by suburbanization. The nine-county Bay Area includes almost four million acres of ranches, farms, vineyards, parks, open space, and watershed lands, and the Alliance used to publish a gray-and-green "Greenbelt" map of the region—gray identified urbanized areas, most of them contained within a strip of land bordering San Francisco Bay. Around the gray was what looked like almost an ocean of dark-green open space. "A beautiful map," says Larry Orman, executive director of Greenbelt Alliance. "And that was the problem with it. Our entire huge greenbelt looked serene and stable. When in fact development pressures have been increasing wildly in some areas and almost not at all in others."

So Orman and Jim Sayer, a research associate, looked at existing zoning, freeway locations, and other planning-and-growth factors at work in the Bay Area, and last year published "Threats to the Greenbelt," a new map in five colors that vividly identifies the areas



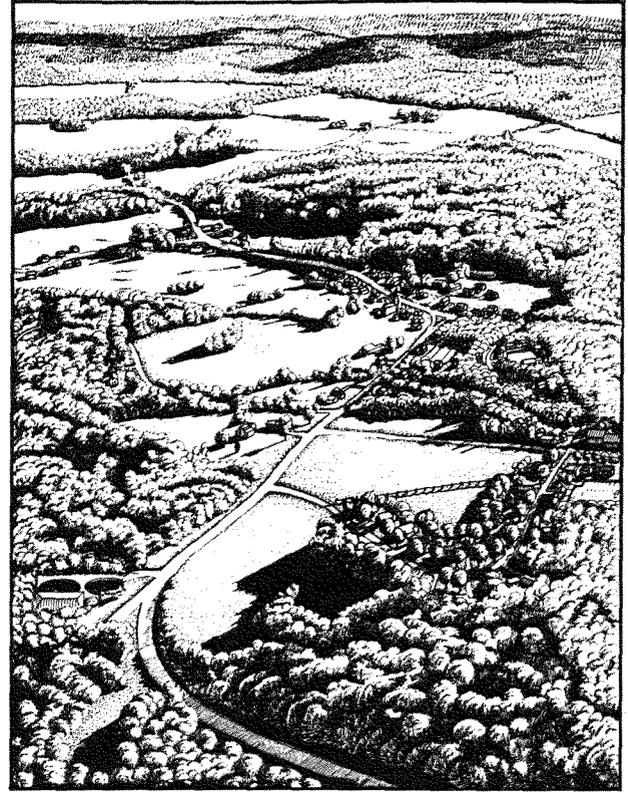
A typical New England landscape . . .

most at risk. The gray areas are unchanged from the old map. But now there are only patches of dark green nearby—representing parks and other securely safeguarded open spaces, such as private open space protected by conservation easements. A much larger area is now colored light green, indicating farms, ranches, and other properties that seem to be safe in the short run. Running through the light-green lands are bands of pink—"Medium Risk" areas, where land-use controls are sketchy or only partly effective. Finally, there are splotches of angry red: the "High Risk" lands along highway corridors and around the edges of the gray urbanized zones. It's a map that seems to be almost violently in motion, and when you look at it intently you can almost begin to see the pink areas intensifying into red, and the red lands fading to gray.

The Connecticut River Valley "Design Manual" uses its four-color drawings, grouped into what Yaro calls a series of triptychs, to show rural towns the inevitable consequences of suburban development, whenever it comes. You are shown three views of the same spot: a contemporary view, followed by two different tomorrows—first, the tomorrow that has been ordered up by one- and two-acre zoning, and then an alternative tomorrow, based on con-



developed conventionally.



A regionalist solution for the same density.

R. Wilson

nectedness. The two future views, as the text explains, contain the same number of new buildings. The first picture, of the existing landscape, is always printed on a right-hand page, so you have to turn the page to look into the two futures—a conventional suburban buildout on the left, and the regionalist alternative on the right. This is a deliberately arranged shock to the senses, because it is at first almost impossible to see any difference between today's landscape and the regionalist vision of tomorrow; there are big fields and small villages in both pictures.

People who are looking through the "Design Manual" for the first time often find themselves flipping pages back and forth so that they can stare at these two views. It's almost like a puzzle-page game of "What's Hidden in This Picture?" Only after careful comparison can you notice that, yes, in the third picture a new little street has been tucked inside the village, just south of the church, and it has on it the same five new houses that in the second view are sitting on four-fifths of the big open field between the village and the Connecticut River. The triptych seen above was left out of the "Design Manual," partly for lack of space, and partly because two years ago, when all the "Design Manual" triptychs were

being prepared, by Harry Dodson and an artist, Kevin Wilson, it seemed almost too shocking—the intense level of development it shows was still practically unheard of in remote New England hill towns. Rapid suburbanization of this kind seems like a much more imminent possibility in 1989.

Since the "Design Manual" restricts not development but only the pattern of development, Yaro sees it as a mechanism for building private equity and public value simultaneously. And he points out, too, how much money can be saved by learning to think regionally. In the last decade, the Commonwealth of Massachusetts has acted to save farmland by buying up farmers' development rights, but land in Massachusetts is now so valuable that the huge new purchasing funds were able to acquire the rights to only a small percentage of the state's farmland. "Acquisition alone can't work," Yaro says. "If we have to buy the land, the best we can hope for is preserving postage stamps of green surrounded by seas of metropolitan and resort development." The "Design Manual" plan, by contrast, immediately reserves for farming purposes half the farmland in any working landscape, at no cost to anyone.

The voters of the towns and cities in the Pioneer Valley will have to agree to

the ideas of the "Design Manual" before they can become reality, and Randall Arendt, the associate director of the Center for Rural Massachusetts, is now touring the valley—and the many towns in the United States and Canada that have asked him to come—with a slide show of triptychs and photographs. Sometimes he comes home at night feeling encouraged. "I have to tell you that I had an almost mystical experience at the town meeting in Belchertown, just east of the Pioneer Valley," he told me recently. "The meeting was to vote on two zoning proposals. I made a seven-minute presentation, and I couldn't even tell if people were listening to me. Only one voter in ten turns out for a town meeting, so you never know who it is you're talking to—and this is a town that has voted down cluster zoning three years in a row. Then the voting began: Article One, a requirement for cluster zoning for all new buildings hooking into town water supplies and sewage lines, passed by one hundred and ninety-six to eight, and Article Two, which called for mandatory cluster zoning for any new buildings that would use well water and septic tanks, passed by two hundred and four to nothing—a unanimous vote." —TONY HISS

(This is the second part of a two-part article.)