

# Jackson Bottom Wetlands Preserve Oak Island Marsh Restoration Project

902 274

## 1) PROJECT DESCRIPTION

**The Problem:** Jackson Bottom is a 450 acre preserve owned by the City of Hillsboro and Unified Sewerage Agency. Approximately 80% of the preserve has been delineated as wetland. Before enhancement projects began in 1979, most of Jackson Bottom was invaded by Reed Canary Grass (RCG). The RCG stand was created by 20-30 years of farming, draining, and sewage management including irrigation of effluent on the site.

**The Purpose:** To restore a 5-7 acre area of existing monotypic RCG wetland as close as possible to known historical levels, based on research and inventories completed for the Jackson Bottom Natural Resource Management Plan.

**The Procedure:** An existing RCG field was excavated approximately 3' deep with the RCG sod being "peeled back" below the root base. The spoils were covered with the under-lying soil (Cove Clay) which formed a berm on three sides of the restored marsh. The end result was an irregularly shaped wetland with natural-appearing peninsulas and islands. The slopes of the islands and peninsulas have a 20:1 - 30:1 slope to optimize wildlife benefits. The site has standing water in most areas throughout the year, with sources of water including, seasonal flooding of the Tualatin River, ground water, surface water runoff and supplementation of water during the dry season using treated effluent.

All exposed slopes were seeded with legumes (a wildlife seed mixture donated from the Oregon Dept. of Fish & Wildlife) to inhibit the reintroduction of RCG. The islands, peninsulas and edges have been seeded and planted with native species (facultative/obligate) of trees and shrubs preferred by wildlife. In addition, two previously restored marshes, Kingfisher Marsh and Meadow Mouse Marsh were planted using native wetland species with funding from this project.

### **Monitoring:**

Research assistants from Oregon Graduate Institute collected baseline data of the site prior to excavation. After the excavation was complete, permanent transects were set at multiple locations around the marsh. Data from the transects will be collected bi-annually. Four permanent photo positions have been established in conjunction with a citizen monitoring program. Photographs are taken seasonally to measure change-over-time. Wildlife inventories were conducted at the site for approximately two years prior to the project. Currently, weekly inventories of wildlife are conducted by volunteers. Water quality monitoring is being conducted by the Unified Sewerage Agency in the summer months.

## 2) WORK TASKS AND TIMELINES:

<u>TASK</u>	<u>DATE</u>
Planting of native vegetation at Kingfisher Marsh and Meadow Mouse Marsh	Oct. 1991
Floodplain Permit application/City	Feb. 1992
Marsh dedication and community information event	May, 1992
Planning & Design of Oak Island Marsh	May, 1992
Oregon Graduate Institute soil and vegetation characterization of site,	June, 1992

Excavation of site, establishing elevations	June, 1992
Hand seeding of grasses and legumes by ODFW staff	Sept., 1992
Planting of native shrubs and trees	Nov. 1992
Oak Island Marsh dedication, public involvement day	Nov. 1992
Photo documentation	ongoing
OGI Vegetation Monitoring	ongoing
Report outlining results of research to date by OGI	December, 1992
5 year Jackson Bottom monitoring	ongoing
5 year monitoring completed	1997
Public education about wetlands and restoration projects	On-going

### 3) PROJECT BUDGET:

	<u>LOCAL MATCH</u>	<u>METRO</u>	<u>TOTAL (to date)</u>
a) Personnel		0	13,900
Wetlands Coord.	\$6,900		
ODFW, OGI	7,000		
b) Materials, Plants and Supplies	1,100	(to date) 2230.02	3,330.02
c) Rental fees (excavation)	(ODFW) 2,000	12,385.50	14,385.50
d) Professional Services	1,800	0	1,800
e) Volunteer Labor Hrs. @ \$4.75 (1,122 hrs. to date)	5,329.50	0	5,329.50
<b>TOTAL (to date)</b>	<b>\$ 24,129.50</b>	<b>\$ 14,615.52</b>	<b>\$ 38,745.02</b>
<b>Total Budgeted</b>	<b>\$21,378</b>	<b>\$15,000</b>	<b>\$36,378</b>

### 4) PROJECT STAFF/WORKERS/VOLUNTEERS:

<u>Organization</u>	<u>Type of Assistance</u>	<u>Name/Phone #</u>
Jackson Bottom Wetlands Coord.	Project management	Patrick Willis, 681-6206
ODFW	Planning, dev., veg. wildlife values, monitoring	Gene Herb, 229-6350

Oregon Graduate Institute	Vegetation research, greenhouse plantings, monitoring	Dr. Wes Jarrell, 690-1183
City of Hillsboro Planning Dept.	Planning/permits	Wink Brooks, Planning Director 681-6100
Jackson Bottom Steering Committee		SEE ATTACHMENT
Soil Conservation Service	Design, erosion control vegetation	Robert App, 648-3014
WCSWCD	Design, erosion control, vegetation	Richard Cover, 642-3294
USA	Planning, water quality	John Jackson, 648-8621

#### Volunteer groups participating in the project:

<u>Organization</u>	<u>Type of Assistance</u>	<u>Name/Phone #</u>
Friends of Jackson Bottom	Vegetation, monitoring funding, education	Sue Orlaske, 640-6522
Portland Audubon Society	Wildlife monitoring	Jennifer Devlin, 292-6895
Students	Monitoring, education Plantings	Patrick Willis, Wetlands Coordinator, 681-6206

#### 5) BENEFITS OF THE PROJECT :

The Oak Island Marsh project changed a monotypic stand of RCG, having little habitat value for wildlife, into a more diverse system. The habitats include mudflats, emergent vegetation, open water and nesting island conditions. *The values associated with these habitats are well-known and include:*

- species diversity and health -- breeding, shelter, nurseries and food for many species of fish and mammals, marsh and upland birds;
- habitat for threatened or endangered species;
- water quality control -- pollution and sediment filtration, oxygen production, and nutrient recycling;
- flood control -- temporary water storage;
- micro-climate regulation;
- shoreline stabilization;
- recreation and education;
- aesthetic appreciation.

The project has also provided:

- Plantings with native wetland species along Kingfisher Marsh and Meadow Mouse Marsh to increase habitat diversity. The increased habitat values will provide a more productive interface for wildlife using the adjacent uplands and will thus improve the habitat quality of the landscape.
- The information generated by this project will be available for use on a regional and national level, and will be shared as a part of the Jackson Bottom project.

**It was the intention of this restoration project to increase the year-round habitat value, to encourage nesting of waterfowl and other wetland species, and to add to the ecological health of the system through diversification and plantings of native wetland species.**

**6) HOW PROJECT RELATES TO THE GREENSPACES PROGRAM :**

The project is consistent with the objectives of the Greenspace Program in several ways. As a part of an entire plan for Jackson Bottom, this wetland restoration project helps fulfill the goals of the preserve as described in the Jackson Bottom Concept Master Plan and the Natural Resource Management Plan. Through the creation and restoration of new marsh systems, as well as the careful planning which link these to other functioning habitats and regional projects, the goals of the Greenspace Program are accomplished. Through the education program at JB, public awareness of the importance of saving and preserving wetlands is increased. This has been accomplished through the cooperation of many agencies and organizations.

**7) WHAT WORKED/WHAT DID NOT WORK/HELPFUL HINTS :**

Still too early to tell!

**8) ADVICE FOR OTHER PROJECT MANAGERS:**

Plan way ahead

Get many people/groups to visit the site-get them involved

Realize that there are many experts to help out

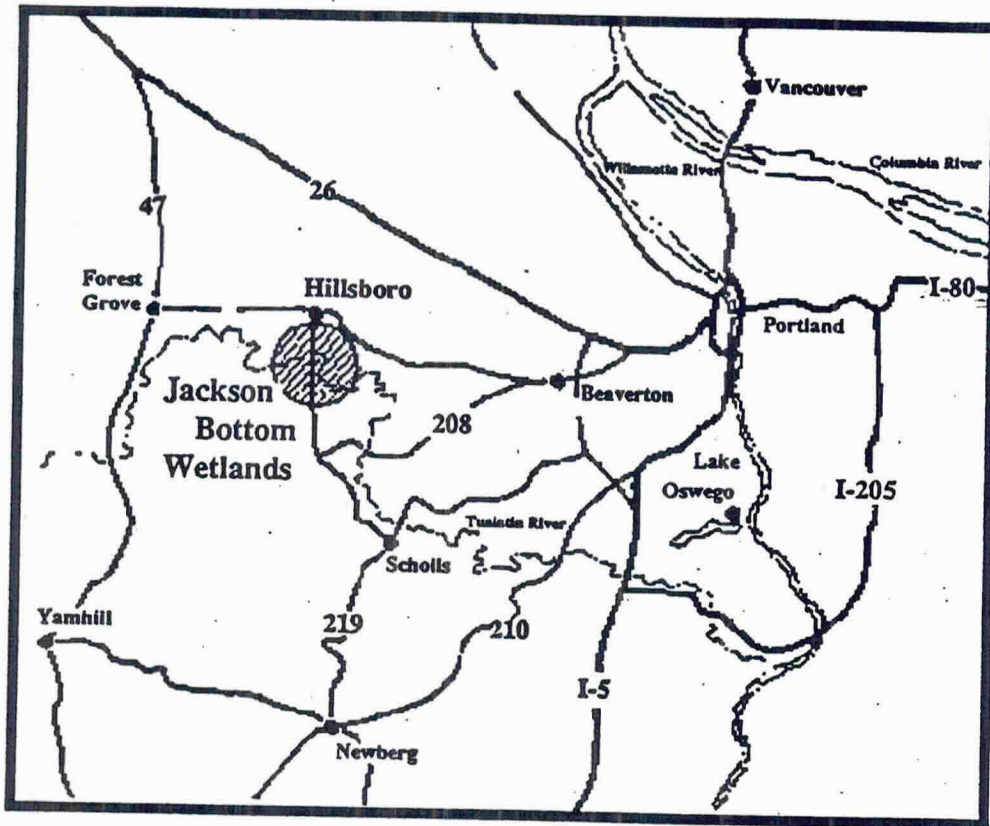
Realize that a lot is known about wetland restoration techniques

Realize that there is very little known about wetland restoration techniques

Plan your project calendar then add a year or two

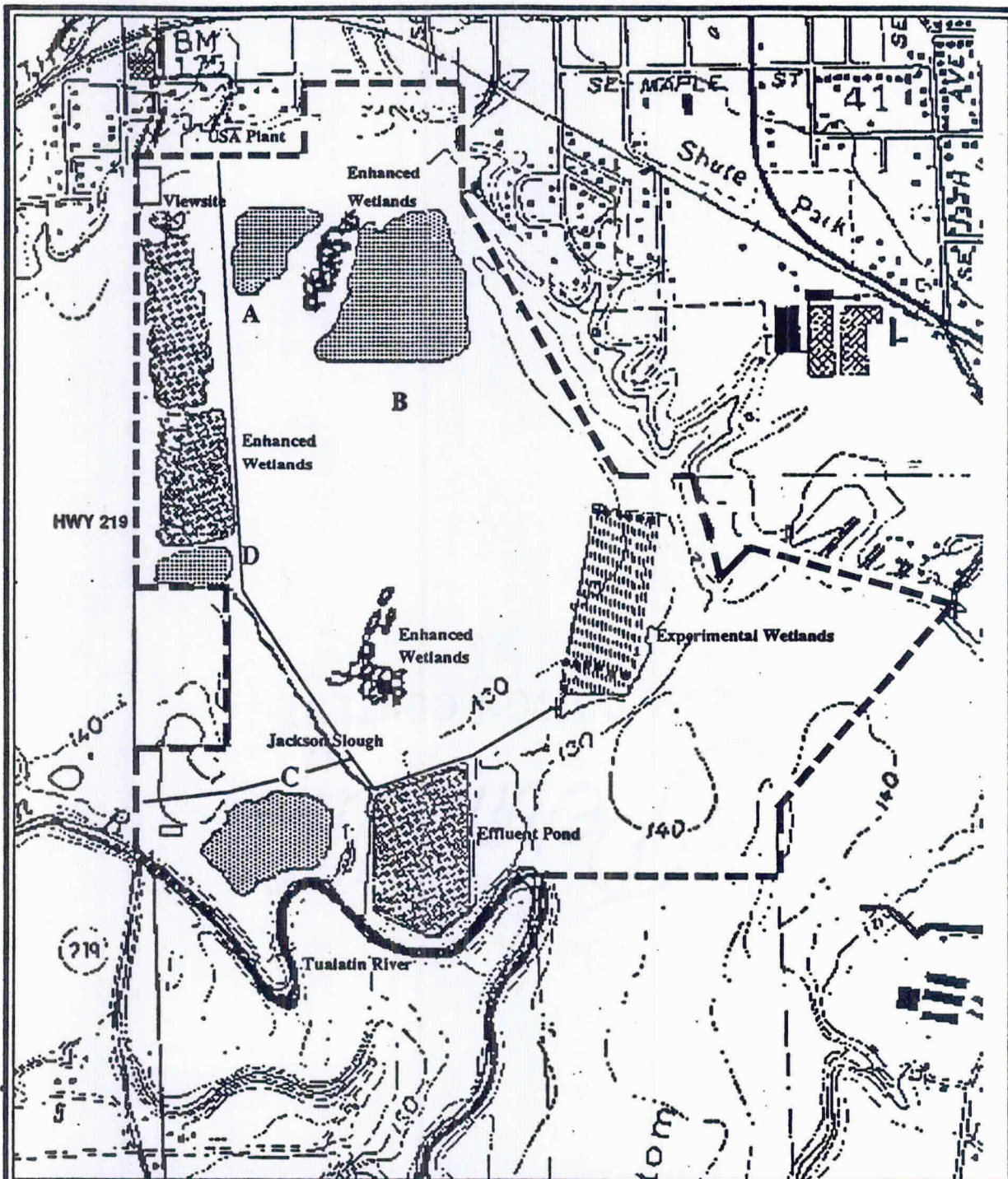
Write it all down

Plan a very high budget for film and development



Location Map

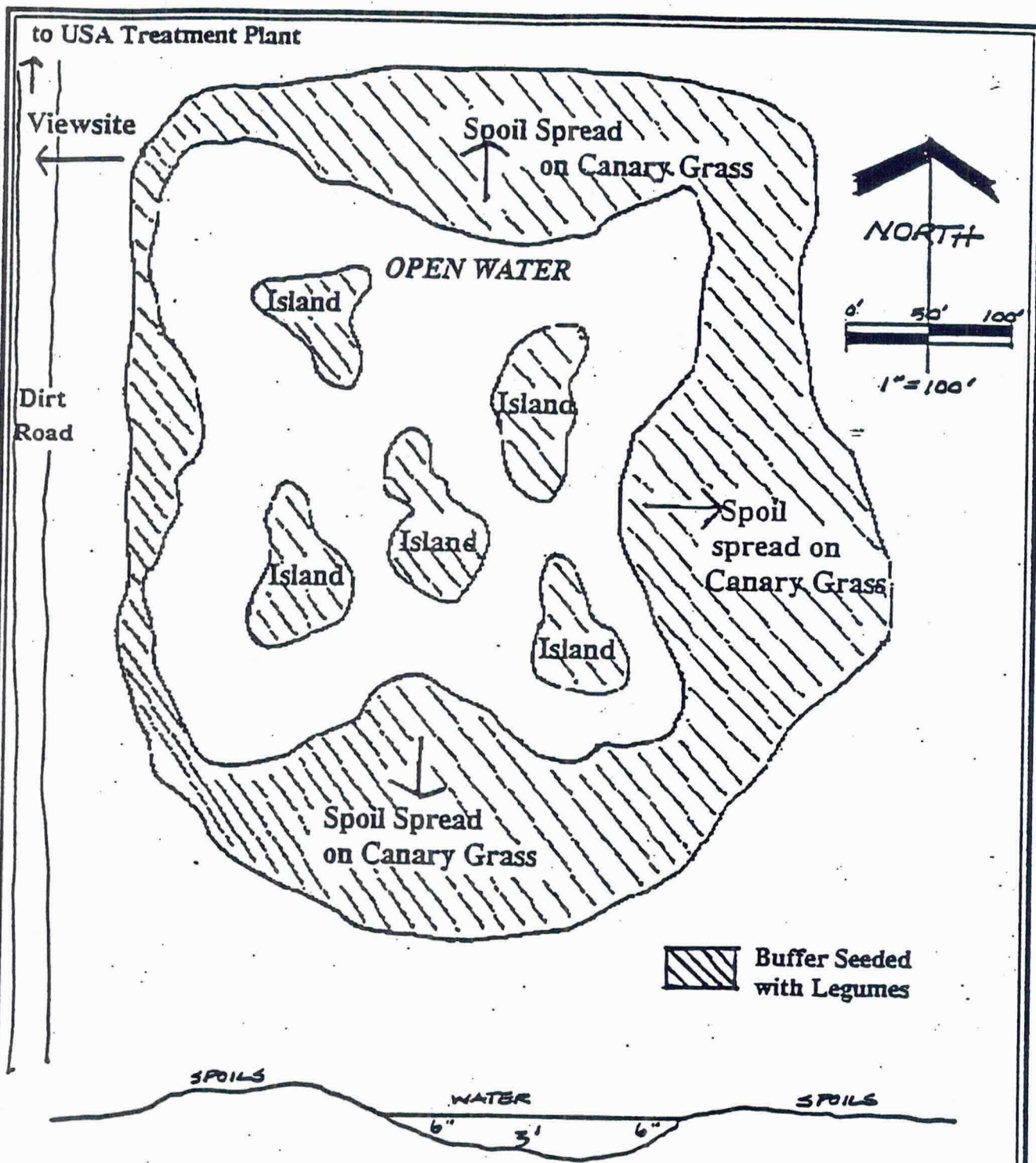
Jackson Bottom Wetlands



**Overview Map of Jackson Bottom Wetlands  
METRO ENHANCEMENT PROJECTS**

*Jackson Bottom Wetlands*

- A. New Enhancement Project/METRO**
- B. OGI Proposed Project Area**
- C. Kingfisher Marsh**
- D. Meadow Mouse Marsh**



**OAK ISLAND MARSH ENHANCEMENT PROJECT**  
*Jackson Bottom Wetlands Preserve*  
SEC. 7WM T1S R2W Hillsboro, OR.  
Washington County

# JACKSON BOTTOM STEERING COMMITTEE

## City of Hillsboro

### *Chair*

Wink Brooks . . . . . 681-6156  
Planning Director  
123 W Main St. #250  
Hillsboro, OR 97123

Tim Erwert . . . . . 681-6119  
City Manager, City of Hillsboro  
123 W Main St. #150  
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Jackson Bottom WtlnD Coord.  
123 W Main St. #150  
Hillsboro, OR 97123

## Unified Sewerage Agency

### *Vice Chair*

John Jackson . . 693-4590/648-8621  
155 N First Street  
Hillsboro OR 97124

## Friends of Jackson Bottom

Mirth Walker . . . . . 639-3400-w  
4910 SW Richardson Dr 245-2607-h  
Portland, OR 97201

Alan Goodman . . . . 326-3685  
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## Hillsboro Chamber of Commerce

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Jim Harp Realty  
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Hillsboro OR 97123

## Oregon Dept. of Fish & Wildlife

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801 Gales Creek Rd  
Forest Grove, OR 97116

## Research

Wes Jarrell . . . . . 690-1121  
Oregon Graduate Institute  
19600 NW VonNeumann Dr.  
Beaverton, OR 97006-1999

Rob Stockhouse . . 359-2254  
Pacific University Dept. Of Biology  
2043 College Way  
Forest Grove, OR 97116

## Wash. Co. Soil & Wtr Conserv. Dist.

Dick Kover . . . . . 642-3294  
6530 SE 173rd  
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## Education

Bureau of Environmental Services  
Ivy Frances . . . . . 796-5326  
1120 SW 5th Ave #400  
Portland, OR 97229

Washington County ESD  
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## The Wetlands Conservancy

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## Portland Audubon Society

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## Member-at-Large