



*Environmental
Education
in the
Portland Area*

July 1991

METRO

ACKNOWLEDGEMENTS

Metropolitan Service District

Rena Cusma, Executive Officer

*Councilor Richard Devlin
Councilor Ruth McFarland*

*Richard Carson, Director,
Planning & Development Dept.*

Project Coordinators & Principal Authors

Jim Sjulín, Portland Parks Bureau
David M. Yamashita, Metro

Environmental Education Working Group

Nancy Bond, Citizen
Jennifer Devlin, Portland Audubon Society
Patrick Feeney, Portland State University
Jan Larson, Urban Forestry Inc.
Bob Mann, Washington County Educational Service District
Carol Pinnegar, Portland Public Schools
Deb Scrivens, Multnomah County Parks Dept.
Roger Yerke, Metro Washington Park Zoo

In addition, other educators attended several meetings
and reviewed the draft report. These are:

Sheila Annis, Ore. Dept. of Fish & Wildlife
Larry Beutler, Environmental Learning Center
Doug Cottam, Ore. Dept. of Fish & Wildlife
Elizabeth Draper

Many thanks also to the staff of the organizations
surveyed for this report.

TABLE OF CONTENTS

<i>Executive Summary</i>	1
--------------------------------	---

Chapter 1: Introduction

A. Purpose of the Project	3
B. Definition of Environmental Education	3
C. Methodology	4
D. Limitations	4

Chapter Two: Summary of Current Environmental Education Programs

2.1 Major Findings	6
2.2 Specific Findings	7
A. Mission	7
B. Age of Programs	7
C. Sites Used	7
D. Subjects	8
E. Program Participation	8
F. Budget	10
G. Funding Sources	10
H. Staffing	10
I. Program Types	11

Chapter 3: Recommendations

3.1 Increase and Broaden Participation	12
3.2 Coordinate the Provision of Education Services	13
3.3 Improve the Accessibility and Use of Natural Areas	14

Chapter 4: Thinking About the Future—The Vision for Environmental Education in the Region	17
--	----

Appendices

Appendix A-1: Summary of Major Providers	
-Washington Park Zoo	
-OMSI	
-World Forestry Center	

TABLE OF CONTENTS
(Cont'd)

Appendix A-1: Summary of Major Providers

- Audubon Society
- ASK Center/OMSI Outreach
- John Inskeep Learning Center
- Wetlands Conservancy

Appendix A-1: Summary of Major Providers

- Multnomah County Parks
- Tryon Creek State Park
- Leach Botanical Garden
- Hoyt Arboretum

Appendix B: Original Interview Sheets

Appendix C: Survey Form

EXECUTIVE SUMMARY

A. Principal Findings

- ***Environmental education programs tend to be specialized in subject area with relatively little overlap.*** Each program focuses on a specific environmental topic. As a result, they collectively provide a comprehensive educational program on all of the major ecosystems in the Portland-Vancouver region.
- ***Coordination between providers is now limited.*** Although there are a variety of programs communication among them occurs infrequently, leading to the potential for the duplication of services.
- ***Programs tend to attract a homogeneous population consisting mainly of white, middle or upper-income persons.*** The participation of non-white or lower-income people was commonly described in the surveys as "non-existent" or "insignificant."
- ***The biggest obstacle for environmental education programs is funding for staff.*** Staffing costs represent a significant part of environmental educational budgets. Volunteers are used in most programs but are useful mainly to complement program staff, rather than to replace them.
- ***A lack of accessibility and interpretive information are major problems*** that limits the use of many sites. Many of the area's most significant natural areas lack trails and basic services such as maps, teaching materials, and on-site information that would encourage their use for education.

B. Principal Recommendations

- ***Increase and broaden school-age participation in existing or new environmental education programs.*** Primary and high school populations should be the highest priority for expanded environmental education programming.
- ***Coordinate the provision of environmental education services among the region's providers.*** Coordination could result in an environmental education system that is comprehensive in its scope and the population groups it serves. A variety of ecosystems could be used to teach both basic and advanced concepts in the natural sciences, environmental awareness, and related topics.
- ***Improve the facilities and accessibility at natural area sites.*** Many sites in the region need to be improved to accommodate environmental education activities.

C. The Vision for Environmental Education in the Region

- *Natural areas will be genuinely used as a vehicle for learning about the environment.*

Through their classwork and other activities, students will visit a variety of natural areas—from riparian sites to upland buttes and national forests—and will have an understanding of all environmental ecosystems. Natural areas will be used for more than occasional field trips, and will be viewed and used as true "outdoor laboratories".

- *A clearinghouse for environmental education will be established.*

The clearinghouse will coordinate program offerings, scheduling, marketing, and the preparation of curriculum materials, and provide training, for the various environmental education providers in the region. The clearinghouse will either be housed in a public agency or be a non-profit group that focusses on this role.

- *Funding for environmental education will be stable and consistent.*

Public programs will be supported by a sources such as a State Income Tax check-offs, oil tax revenues, percentage of the sales tax, and real estate transfer tax. Schools will be able to schedule more field trips to natural areas. The increased funding will allow Outdoor School to expand to include all primary and high school grades, and can be visited two to three times a year.

- *Environmental education programs will attract participants of different ages, ethnic groups, socio-economic levels, and abilities.*

Environmental education will be an integral part of everyone's life, regardless of where they live or what "socio-economic" group they may be from. Programs will also be designed for the disabled, lower-income citizens, elderly people, and other special population groups.

- *A network of interpretive facilities will be established in the region.*

These will be distributed throughout the region to ensure access to all people. A hierarchy of facilities will be provided to meet different needs.

CHAPTER 1

An Introduction to the Study

The purposes of this report are to:

- provide a "snapshot" of the status of environmental education (EE) programs in the Portland metropolitan area; and
- propose a series of recommendations to address the issues facing environmental education providers.

The report is intentionally focussed in its scope and should be viewed as the initial step in any effort to coordinate environmental educational programs in the metropolitan area. The assessment and recommendations are based on a survey of 11 environmental education providers in the region. Although this is a fraction of all of the organizations that provide EE services, it was believed that the 11 would be sufficient to provide a general assessment of the status of environmental education in the metropolitan area.

The 11 providers are:

John Inskeep Environmental Learning Ctr.	Hoyt Arboretum
Leach Botanical Garden	Portland Audubon Society
Multnomah County Parks Dept.	OMSI
OMSI-ASK Center	Tryon Creek State Park
Metro Washington Park Zoo	The Wetlands Conservancy
World Forestry Center	

Why the Project Was Done

The study was initiated by Metro as a part of the Metropolitan Greenspaces program. Although the program focusses on the protection of natural areas, environmental education was considered to be a key part of the program in the future. As stated in the program's tag line, the Greenspaces system is intended to be for "wildlife and people."

Environmental education was considered also because Metro could conceivably assume a role as a coordinator for regional environmental education, much as it does for recycling education in the three-county area.

Definition of Environmental Education

One of the first steps in the project was to define "environmental education". This was important because EE could be construed to encompass a broad range of science programs and classes.

The definition of EE in this report is:

Education with the goals of understanding and appreciating the earth, its life forms, and people's interaction with its systems.

This definition does not include classes on general science, zoology, botany, or other related topics. The study also does not consider individual activities, such as field trips and classes held by teachers in both public and private schools. The key concept for EE, in this report, is the *relationship between people and their environment*.

Methodology

The project was initiated in fall of 1990 as part of the Metropolitan Greenspaces program. Metro staff, in conjunction with the Portland Parks Bureau, convened a group of environmental educators (listed on the inside cover) to determine how the study would be conducted and how the "snapshot" of EE programs would be accomplished.

After much discussion, it was agreed that survey of "major providers" would be the most efficient, given the group's size, resources available, and the allotted time for the project. "Major providers" were defined as those for whom education was a primary activity and served relatively large numbers of people.

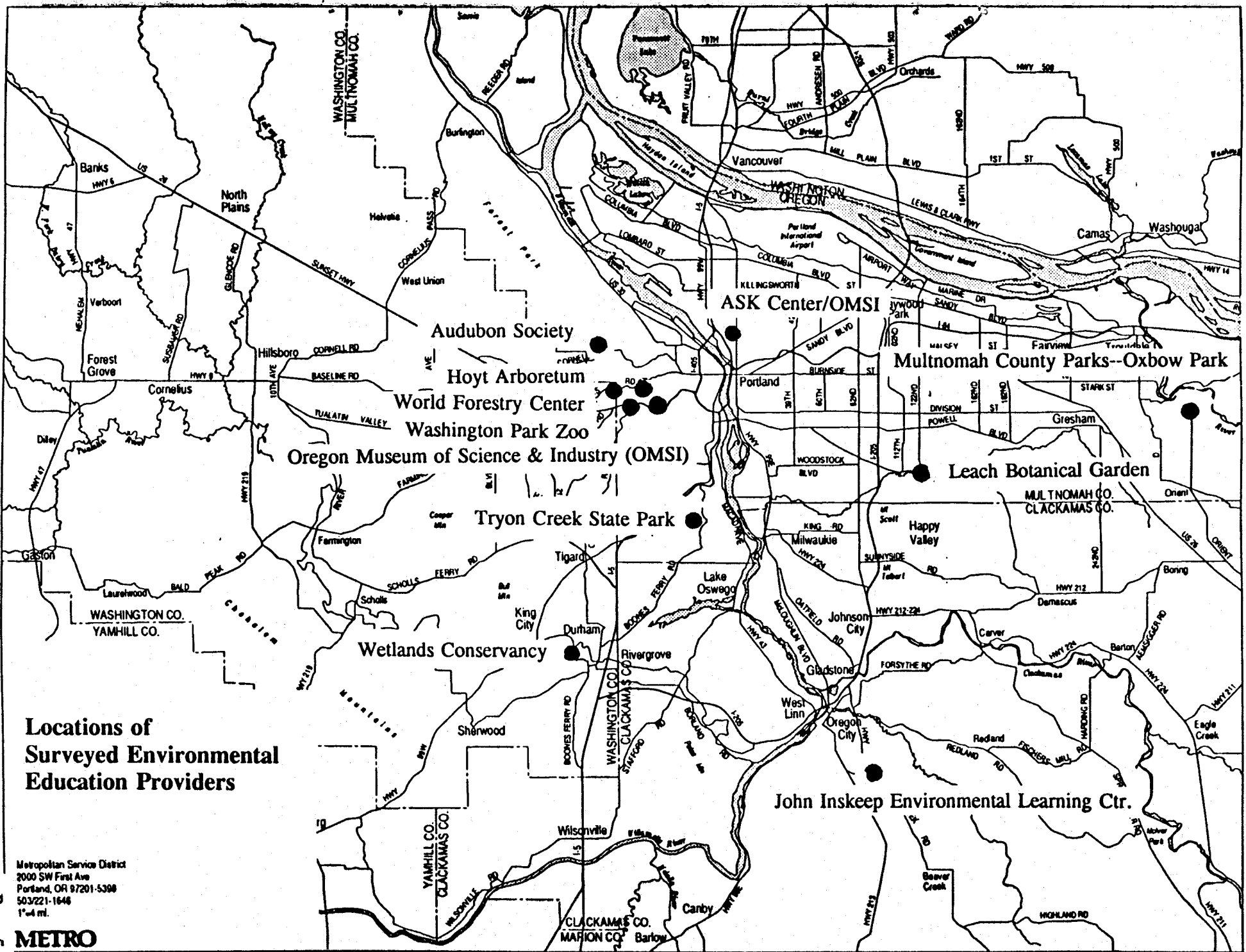
Personal interviews with representatives of the selected programs were conducted by the working group during November of 1990 to collect information on the different programs. (Original interview forms are in Appendix B). The survey covered a range of topics, from overall mission to the number of contact hours and demographic groups served. (A copy of the interview form is included as Appendix C.)

Survey results were then summarized in a series of tables (see Appendices A-1 to a-3). Interpretation of those results were discussed over the next few meetings, and culminated in a series of findings and recommendations.

Limitations

One of the principal caveats in this study is that it is based on surveys of 11 providers. Although significant in the region, these programs may not represent the entire spectrum of providers. A principle assumption is that the eleven providers are sufficient to serve as a barometer or general measure of what is now occurring in environmental education.

Any further studies on environmental education in the area should involve a larger number of providers, especially those that were not included in this study.



**Locations of
Surveyed Environmental
Education Providers**

Metropolitan Service District
2000 SW First Ave
Portland, OR 97201-5308
503/221-1646
1"=4 mi.

CHAPTER 2

A Summary of Current Environmental Education Programs

2.1 MAJOR FINDINGS

Five major findings were identified through the surveys and represent the most critical issues facing environmental education programs now and in the future. These issues need will have to be addressed if environmental education opportunities are to be expanded.

- **Environmental education programs tend to be specialized in subject area with relatively little overlap.** Each program focusses on a specific environmental topic such as wetlands, old-growth forests, endangered species, or plant classification. When viewed collectively, they provide a comprehensive educational program on all of the major ecosystems in the Portland-Vancouver region (see page 9).
- **Coordination between providers is now limited.** Although there are a variety of programs communication among them occurs infrequently, leading to the potential for the duplication of services. This is especially critical now as local governments are looking to improve the efficiency of services through consolidation.
- **Programs tend to attract a homogeneous population consisting mainly of white, middle or upper-income persons.** The participation of non-white or lower-income children and adults was commonly described in the surveys as "non-existent" or "insignificant." The one exception is the OMSI ASK Center, which is located in inner Northeast Portland.
- **The biggest obstacle for environmental education programs is funding for staff.** As noted on the following pages, staffing costs represent a significant part of environmental educational budgets. Volunteers are used in most programs but are useful mainly to complement program staff, rather than to replace them.
- **A lack of physical accessibility and interpretive information are major problems that limits the use of many sites.** Many of the area's most significant natural areas do not have trails or other facilities that would encourage their use for education. Basic services such as maps, teaching materials, on-site information, and trails also are not available from many natural areas.

2.2 SPECIFIC FINDINGS

A. Mission

As might be expected, the eleven programs share a common philosophy and focus on the general theme of "promoting an awareness and understanding of natural resources." Many of the programs stress a particular aspect of natural resources such as wildlife, wetlands, ethnobotany, and forests. Some concentrate on specific sites in their programs--Johnson Creek, for example--while many are general in their geographic scope.

B. Age of Programs

With one exception, all of the programs are relatively young. Most were established in the 1970's and 80's and range in age from two to 40 years old.

<u>Educational Program</u>	<u>Yr. Established</u>
OMSI	1950
World Forestry Center	1973
Washington Park Zoo	1975
John Inskeep Learning Ctr.	1975
Tryon Creek State Park	1971
Hoyt Arboretum	1977
Wetlands Conservancy	1981
Portland Audubon Society	1982
Multnomah County Parks	1985
Leach Botanical Garden	1989

C. Sites Used

Most of the programs tend to use their own grounds for educational activities. In some cases, a variety of sites both in and outside the metropolitan area are used for programs. None of the natural areas receive a disproportionate share of users although two sites--Oaks Bottom and Hoyt Arboretum--are mentioned more than other areas. The relative low use of other sites is striking because the Portland-Vancouver area includes a wide range of natural areas that are suitable for environmental education.

The low use of these sites may be attributed to three factors: (1) many providers can provide an adequate diversity of programs on their own property; (2) transportation costs can be prohibitive, especially for smaller programs, and (3) access and interpretive facilities at many sites are extremely limited. One of the region's most significant resources, Smith and Bybee Lakes, for example, is relatively inaccessible due to a lack of trails.

D. Subjects

The eleven organizations surveyed provided a wide range of programs, ranging from general wildlife to ethnobotany. Each provider appears to focus on a specific environmental subject or approach as their educational niche. As a result, there appears to be little overlap in subject area covered. What is especially interesting is that when the topics are listed together, they cover a continuum of ecosystems, from rivers and wetlands to national forests. This is illustrated on page 9.

E. Program Participation

Participation in programs exhibits varies considerably, depending on the program and demographic factors. Participation is described below in terms of four variables.

- o Attendance levels vary widely and appears to be function of financial resources and facilities. Programs with adequate classroom space can provide a greater range of activities and can accommodate a wider cross-section of the population-children and adults, for example.

General interest in environmental education appears to be on the upswing, based on increasing attendance over the last five years. All of the programs surveyed have shown an increase in participation, as measured by class registration, attendance at events, and requests for information. As one example, visitors to the Salmon Festival at Oxbow Park have grown from less than 500 in 1985 to over 7,000 in 1989.

Participation in environmental education programs by school districts however, is low. Student participation in the Portland Public Schools, for example, is typically limited to 5 or 6 days at the 6th grade level at the Outdoor School.

- o Seasonal participation also changes during the year. Programs are very popular in spring and fall with lower attendance during other parts of the year. Of the four seasons, spring is clearly the period of greatest participation, both in programs and for public visitation. Conversely, winter is the least popular season, probably because of inclement weather.

For some programs such as the Portland Audubon Society's and the Wetlands Conservancy, attendance increases during periods of bird migration.

- o Age groups that are served tend to be consistent through the programs. Almost all programs serve pre-school, primary, high school, and adult groups. One program, the Portland Audubon Society's, also has special programs for senior citizens.
- o Geographic areas served tend to be clustered around specific areas. Among the areas commonly cited as high-participation zones are the Tigard-Tualatin-Lake Oswego area, Beaverton-Hillsboro area, west side of Portland, and the area west of I-205.

**Summary of Programs and General Subjects
for Selected Environmental Education Providers**

<p>RIVERS</p>	<p>WETLANDS</p>	<p>NATURE IN THE CITY URBAN WILDLIFE</p>	<p>FORESTS</p>
<p><i>Multnomah County</i></p>	<p><i>Wetlands Conservancy</i></p>	<p><i>Portland Audubon Society John Inskeep Learning Center Hoyt Arboretum OMSI Oregon Dept. of Fish & Wildlife</i></p>	<p><i>Leach Botanical Garden Tryon Creek State Park World Forestry Center Multnomah County Mt. Hood National Forest</i></p>
<p>ENDANGERED SPECIES <i>Metro Washington Park Zoo</i></p>			
<p>ENVIRONMENTAL AWARENESS <i>Metro Washington Park Zoo Hoyt Arboretum John Inskeep Learning Center Ask Center/OMSI Outreach Portland Audubon Society</i></p>			

F. Budget

For most of the programs, the two largest expense categories are staffing and travel. Staffing costs represented the greatest expense, averaging around 50 percent to over 90 percent of total budget. For programs that sponsor field trips, travel costs are usually the second greatest expense, averaging about 10-20 percent of total budget. Materials costs are relatively low and range from 5 to 15 percent.

The budget picture could change for programs, especially those in public schools, in the aftermath of Measure 5. Field trips are likely candidates for budget cuts. If this happens, field trips will likely be shorter and may require the use of public transportation for field trips. The need for sites in proximity to schools could increase the awareness of remaining natural areas in the region, creating an opportunity for more use of these areas.

G. Funding Sources

Three general sources of funding are used by the programs as a whole--a General Fund, fees, and other sources such as grants. Public programs, such as Multnomah County Parks, Leach Botanical Garden, and Hoyt Arboretum, are supported almost entirely by the General Fund. The Washington Park Zoo utilizes two major sources--a tax base and revenues from classes and entrance fees.

Privately run programs depend more on fees for programs and memberships. Portland Audubon Society, for example, derives about 90 percent of its budget from membership fees and classes. Almost 75 percent of OMSI's budget is funded from fees from individuals and groups.

Grants, fundraising events, and contributions comprise the third major funding source. Programs that make extensive use of these techniques include the John Inskeep Learning Center and OMSI.

H. Staffing

Staffing levels generally reflect the financial resources available to the program. Well-funded programs may not necessarily have a larger staff but may instead, require fewer volunteers. Volunteers are typically an integral part of the educational programs surveyed. They are often used as instructors and assistants but are, in some cases, a "by-product" of the educational program and are used to supplement staffing needs.

The percentage of volunteers in relation to total educational staff ranges widely. At OMSI for example, volunteers comprise five percent of staff while the Wetlands Conservancy depends entirely on a volunteer staff. Other programs, such as Hoyt Arboretum and the Washington Park Zoo, have a volunteer force that accounts for 80 percent and 60 percent respectively of total staff.

I. Contact Hours by Program

One index of how much time students are exposed to environmental education is "contact hours." This measures how long each individual session or class is, by person. As an example, a student who has a class of 10 hours in length will receive 10 contact hours. Relatedly, a class of 5 students will have 50 contact hours. In the table below, the "average number of contact hours" was used as one way of assessing the degree to which students were exposed to environmental education concepts.

Contact hours varied considerably depending on the program, although most had an average contact period of 2-3 hrs. One program, OMSI's, is set up as a week-long camp and has an average of 40 hours. The averages for the programs are shown below.

<u>Educational Program</u>	<u>Ave. Contact Hrs.</u>
OMSI	40 hrs.
OMSI-Ask Center	7
Hoyt Arboretum	2
Portland Audubon Society	2
Multnomah County Parks	1.5
Washington Park Zoo	1.5
Wetlands Conservancy	1.5
Leach Botanical Garden	< 2
John Inskeep Learning Ctr.	.75

CHAPTER 3

Environmental Education Recommendations

From the survey findings and subsequent discussions, three general recommendations have been defined. The three recommendations are intentionally broad, and could serve as the basis for future strategies, programs, and actions. Specific actions also are offered, but are not intended to be all-inclusive. Other actions could be developed to support the general recommendations.

3.1 Increase and broaden school-age participation in existing or new environmental education programs, especially in inner-city and low-income areas.

Primary and high school populations should be the highest priority for expanded environmental education programming. Special outreach efforts should be aimed at reaching inner-city and low-income neighborhoods, which traditionally are underserved by environmental education programs.

Programs for this population are the most cost-effective because:

- concepts and values learned through environmental education programs can be incorporated immediately and used over a lifetime;
- environmental education is a "friendly" medium that can be used to increase the general awareness of environmental issues among students; and
- adoption of an environmental ethic is important if humankind is to resolve local and global environmental problems.

Specific Actions

- A. Re-design existing environmental education programs, if necessary, to meet State of Oregon curriculum requirements.
- B. Expand existing environmental education programs through additional funding for professional staff, and for the development of volunteer programs.
- C. Target expanded EE services at inner-city and low-income areas.
- D. Develop outreach efforts to reach classroom teachers and school programs.
- E. Establish one or more pilot programs at inner-city schools and to demonstrate how EE programs involving school districts can be coordinated. The "Teens As Teachers" program as developed by Carl Crookham in

Denver, Colorado, is one example of a pilot program that should be implemented.

Pilot programs should:

- address the lack of ethnic minority participation in environmental education programs;
- operate from an inner-City school;
- offer the same or greater intensity of contact as offered at Outdoor School;
- involve several trips to regional natural areas;
- be developed around State curriculum requirements; and
- be designed for incorporation into school district or other agency services.

- F. Establish a link between environmental education programs and other programs, such as MESA ¹, that focus on specific population groups or neighborhoods.

These cooperative programs should:

- include trips to regional natural areas;
- relate the remnant urban "natural" environment, no matter how small, to larger natural systems; and
- expose participants to careers in natural resource management and natural history and education.

3.2 Coordinate the Provision of Environmental Education Services Among the Region's Providers.

Coordination could result in a comprehensive environmental education system that comprises a range of environmental subjects and areas. A variety of ecosystems could be used to teach both basic and advanced concepts in the natural sciences, environmental awareness, and related topics. The approach should also ensure that a variety of population groups are served.

Specific Actions

- A. Promote a coordinated approach among groups that now provide complete EE programs.

To reduce duplication, these agencies should work cooperatively to meet identified regional needs. Cooperation could be promoted in several ways.

¹ MESA is a program to foster and nurture an interest in math and science among girls and ethnic minorities in the Portland Public Schools district.

Services such as marketing, informational material, and curriculum, could be developed through a clearinghouse or an existing public agency or group.

Other services, such as facilities, maintenance, interpretation & signage, transportation, and program development, volunteer recruitment and management, could be handled either on a group basis or by individual providers.

- B. Establish a "regional coordinator" to assist in providing environmental education services to the community, and to provide selected group services more efficiently (See diagram on page 15).

The coordinator could:

- identify EE service needs in the region;
- facilitate the development of a coordinated EE curriculum that utilizes a full range of the region's natural areas and several environmental education programs;
- provide group services such as a combined marketing effort, an information referral program, volunteer recruitment and training, specific projects, and combined programs; and
- obtain and distribute funding to EE providers.

A potential model is Metro's Recycling Program which serves as a clearinghouse on recycling information to the Portland metropolitan region. Instead of creating its own curriculum, the Recycling Information Center maintains a library of all existing educational materials on recycling.

- C. Agencies that manage natural areas but are unable to provide complete education programs due to low budgets or other constraints should:

- provide basic services such as maps, brochures, interpretive signs, parking, and trails;
- provide a basic level of services or invite other agencies to provide education programs at their sites; and/or
- distribute information to the regional coordinator on a regular basis.

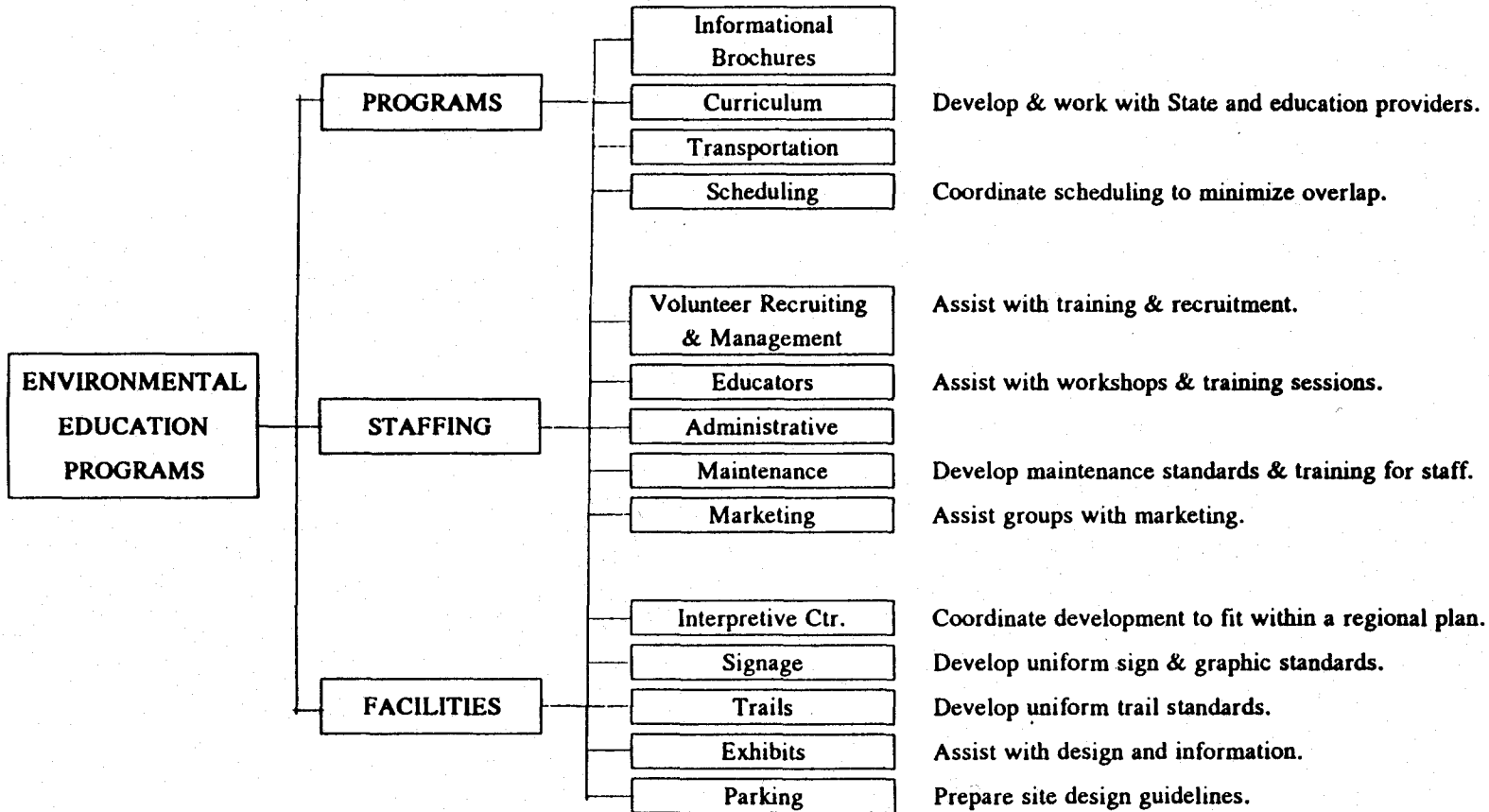
As one example, the Portland Parks Bureau could encourage Portland Audubon, Multnomah Co. Parks, and the Washington Park Zoo to provide EE services at Portland Parks natural areas.

3.3 Improve the Accessibility and Usability of Natural Area Sites.

Many sites in the region need to be improved to accommodate environmental education activities. As noted in Chapter 2, most of the region's natural

EDUCATIONAL COMPONENTS

POTENTIAL ROLE FOR THE COORDINATING GROUP



areas do not have trails, interpretive signs, or other related facilities.

Specific Actions

- A. Provide basic information and facilities such as maps, introductory brochures, on-site interpretive signs, parking areas, and trails for important urban natural areas.
- B. Develop environmental education plans for each natural area site to define how the site should be improved and used for environmental education.
- C. Improve natural area sites to accommodate the physically disabled. Improvements should include paved trails, adequate parking, and trails with accessible slopes.

CHAPTER 4

Thinking About the Future- The Vision for Environmental Education in the Region

Along with addressing short-term issues that now face the environmental education community, the long-term "vision" also is important. The vision described on the following pages describes one possible scenario that could direct actions and activities over the next few years.

The vision is ambitious. It includes ideas that would require dramatic increases in funding and a change in attitudes among the public and its leaders. The vision also is described in terms of programs and facilities. But the most critical part of that vision deals with people. In this vision, the environmental movement of the 1990's will have taken hold in both large and small ways, resulting in a population that cares about the environment.

Programs will be expanded and facilities will have been built. But more than that, environmental awareness will have been translated into individual actions on the part of all citizens. A variety of "environment-enhancing" opportunities will be possible, from "pre-cycling" to taking educational classes to political involvement. In short, environmental education and awareness will be a continuous strand that is woven into the fabric of everyone's life.

Natural areas will be genuinely used as a vehicle for learning about the environment.

Through their classwork and other activities, students will visit a variety of natural areas--from riparian sites to upland buttes and national forests--and will have an understanding of all environmental ecosystems. Natural areas will be used for more than occasional field trips, and will be viewed and used as true "outdoor laboratories".

- o As part of this commitment, *environmental education programs will be an integral part of the State curriculum.* Concepts of environmental education will be taught to students from pre-school through college. In addition, innovative projects that allow students to be trained as "nature guides" will be an option for high-school students.
- o *The concept of "service learning" will be integrated into the management of natural areas.* Under this idea, students will participate in programs that:
 - train them to be guides for other students;
 - link them with mentors in the environmental sciences;
 - involve them in restoring natural areas for wildlife habitat;

- building and maintaining trails; and
- collecting data at natural areas as part of a school network.
- provide internships for service learning projects through schools and civic organizations.

A clearinghouse for environmental education will be established.

The clearinghouse will coordinate program offerings, scheduling, marketing, and the preparation of curriculum materials, and provide training, for the various environmental education providers in the region. The clearinghouse will either be housed in a public agency or be a non-profit group that focusses on this role.

In addition, the clearinghouse will have a grant writers who can assist other groups with fund-raising and grant applications. The "regional coordinator" will publish and disseminate information about educational opportunities.

Funding for environmental education will be stable and consistent.

Because environmental education is mandated by the State curriculum, public programs will be supported by a stable funding source. Options include the State Income Tax check-offs, oil tax revenues, percentage of the sales tax, and real estate transfer tax. Additional revenue is generated through fund-raising events at specific sites, endowments, user fees, and the financial support of school districts.

Because more funding is available, schools will be able to schedule more field trips to natural areas. The increased funding will allow Outdoor School to expand to include all primary and high school grades, and can be visited two to three times a year. The Teens as Teachers project will be integrated into the Outdoor School program. Through this program, older students will use their environmental knowledge to teach younger children both in the field and in the classroom.

Environmental education programs will attract participants of different ages, ethnic groups, socio-economic levels, and abilities.

Environmental education will be an integral part of everyone's life, regardless of where they live or what "socio-economic" group they may be from. Programs will also be designed for the disabled, lower-income citizens, elderly people, and other special population groups.

- o As part of this commitment to broad public access, *natural areas will be physically accessible for all people.* All natural areas will be accessible through the development of trails, interpretive facilities, and other improvements. Public transportation and bicycle paths go to all of the sites.

- o *Information on natural areas and environmental education programs will be provided in a variety of ways to reach different population groups. Guidebooks, brochures, posters in busses and MAX, and street signs will be used to complement traditional techniques.*
- o *Neighborhood groups and other civic organizations will be actively involved in the protection and management of natural areas. The relationship between citizens and natural areas will be strengthened through partnerships between public agencies and civic groups.*

A network of interpretive facilities will be established in the region.

These will be distributed throughout the region to ensure access to all people. A hierarchy of facilities will be provided to meet different needs.

- o *Four or five major interpretive centers will be distributed throughout the region. These centers will accommodate large groups and will include rooms for exhibits, classrooms, auditorium/multi-purpose room, labs, library, gift shop, and mudroom. In addition, the centers will also have exterior facilities such as accessible self-guided trails, interpretive exhibits, observation blinds, picnic areas, and parking.*
- o *A series of smaller and specialized interpretive centers will be provided at other sites. These centers will be located at sites that may not be able to accommodate large groups or that have a particular environmental focus.*
- o *Field sites comprise the third layer in the hierarchy. Interpretive facilities at these sites are limited to self-guided walks, interpretive signs and exhibits, and informal observation points.*

Potential sites for major interpretive centers or more specialized centers include:

Forest Park	Oaks Bottom Wildlife Refuge
Oxbow Park	Powell Butte
Ridgefield Wildlife Refuge	Sauvie Island
Smith & Bybee Lakes	Tualatin Hills Nature Park
A site in Tualatin	A site in Clackamas County
Hagg Lake or other site in proximity	

APPENDIX A-1

Summary of Major Providers of Environmental Education

Washington Park Zoo
OMSI
World Forestry Center

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Washington Park Zoo	OMSI	World Forestry Center
MISSION	Caring now for the future of life.	Provide hands-on experience in environmental awareness so students become informed decision-makers on environmental issues.	Education on forests and forestry
ESTABLISHED	1975	1950	1973
NO. PEOPLE SERVED	1,080,000/year	4,000+	3,600 for EE programs 40,000 for traveling exhibits
SITES USED FOR PROGRAMS	Zoo Grounds	Hancock Field Stn. Camp Kiwanilug South Slough Estuary Columbia Gorge Mt. St. Helens Newport, OR area resources	WFC campus Magnuson Tree Farm--year round Hoyt Arboretum--year round
3 SITES USED MOST OFTEN	Zoo Grounds Oaks Bottom Jackson Bottom Tualatin Nature Park	Hancock Field Stn. (9 mths) Camp Kiwanilug (7 mths) Puget Sound marine zones (1 mth)	Magnuson Tree Farm--year round Hoyt Arboretum--year round
REASONS FOR USING	Off-site programs focus on urban wildlife habitat.	Resource potential Facility availability Distance from OMSI Safety	Availability
OBSTACLES TO MORE USE	Internal organizational problems typical of new programs	Weather Travel time Target groups vary	Lack of programs Shifting priorities
5 MAIN TOPIC AREAS	Endangered species Species dependency on specific habitat Habitat complexity Aesthetic/affective value of wildlife Importance of individual action	Natural history/general ecology Aquatic systems (fresh/salt water) Geology/paleontology Land conservation awareness Human environmental impact	Rainforests Ancient Forests General forest ecology Forestry Careers in forestry

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Washington Park Zoo	OMSI	World Forestry Center
ANNUAL BUDGET	\$304,664	\$ 500,000/year	& 75,000/year
FUNDING SOURCES	Zoo tax base--50% Zoo revenues--50%	Fees from individuals--50% Fees from groups--25% Grants--15% Internal financial sources--10%	General operating fund Admissions Program fees Scholarships/donations Fundraising projects
BUDGET BY CATEGORY	Staffing--54% Materials--46%	Staffing--55% Facility rental--10% Materials--5% Food--20% Travel--15%	Staffing--75% Materials--5% Travel--20%
STAFFING:	Volunteers--60% Paid--40%	Volunteers--5% Paid--95%	Paid--100%
STAFFING BY TYPE	EE staff--2.5 Administrative--3.5 Volunteers--200	EE staff--10 Administration--1.5	EE staff--1.5 Administration--.5
CLASS LENGTH	Almost all less than 2 hrs.	20> hrs.--90% 5-10 hrs.--10%	Less than 2 hrs--90% 5-10 hrs--10%
CONTACT HOURS	1.5 hrs.	40 hrs.	
AGE GROUPS SERVED	Primary Pre-school Adult High School Family Groups	Primary High school Adult Pre-school	Adult Primary Pre-school High school
AREAS SERVED	West side of Portland Beaverton-Hillsboro area Tigard-Tualatin-LO area East Portland--west of I-205 Canby-OR City-Milwaukie Vancouver	Beaverton-Hillsboro area Tigard-Tualatin-LO area Tigard-Tualatin-LO area	1. Beaverton-Hillsboro area Tigard-Tualatin-LO area West side of Portland 2. Outside metro area 3. West side of Portland East of I-205 Canby-OR City-Milwaukie

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Washington Park Zoo	OMSI	World Forestry Center
CLASS TYPE	Individuals—80% Group—20%	Individuals—30% Groups—70%	Individuals—50% Groups—50%
USE BY DIFFERENT POPULATION GROUPS	Insignificant	Mostly upper-middle class white	No information
CHANGES IN PROGRAM USE IN LAST 5 YRS.	Increased general attendance	Dramatic increase, especially in marine-related programs & residential programs	Shift from commodity education to general natural history Shift from trade show/hobby events to programs and tours
SEASONAL PARTICIPATION	Varies by program	Decrease in winter	No
PREPARED MATERIALS	Yes—for school group visits	Yes	No
NEED FOR MORE EE PROGRAMS		Always!	No need for more physical programs. More access for extg. programs. More walks & talks for average citizen. Emphasize teacher education & direct access to materials.

APPENDIX A-2

Summary of Major Providers of Environmental Education

*Audubon Society
ASK Center/OMSI Outreach
John Inskeep Learning Center
Wetlands Conservancy*

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Audubon Society	ASK Center/OMSI Outreach	John Inskeep Learning Center	Wetlands Conservancy
MISSION	Education, with the goals of enjoyment & protection of wildlife & associated habitat.	Enlighten kids & make them aware of their surroundings & environment	Provide information on human & wildlife can coexist—how we can protect habitat	Own & manage wetlands; provide education on wetland values; testify before govt. bodies
ESTABLISHED	1982 (formally)	About 40 years ago	1975	1981
NO. PEOPLE SERVED	About 5,000	5,000 overall/1,000 for EE	20,000	Unknown
SITES USED FOR PROGRAMS	Pittock Bird Sanctuary Oaks Bottom Crystal Springs Rhod. Gdns. Powell Butte	OMSI, ASK Center, Oaks Bottom Hoyt Arboretum, Oregon Coast, Mt. St. Helens-Ape Caves Vernonia, Oxbow Park, Eagle Creek Fish Hatchery	ELC Other schools Variety of sites around Oregon for travelling tours & field trips	Nyberg Ck. Wetland Hedges Ck. Marsh Vitis-Losli Wetland Hart Wetland Apache Bluff Wetland Minthorn Springs
3 SITES USED MOST OFTEN	Oaks Bottom (4x/month) Crystal Springs (4x/month) Columbia R. Slough (1x/month)	Vernonia for fossil digs Columbia R. Gorge—natural history Hoyt Arb.—plants, forestry, hiking		
REASONS FOR USING	Wildlife density & accessibility	Enhance programs Go to places new to kids Show diversity	Assemblies & classroom programs requested Interesting natural history features	Sites are unique Readily accessible
OBSTACLES TO MORE USE	Lack of programs to use sites	Travel time		
5 MAIN TOPIC AREAS	Birds—general General wildlife General natural history/ecology Birds—specific groups Bats	Zoo-ology (animals) Botany Outdoor Ed (general natural history) Insects Paleontology Oceanography	Recycling Habitat Resource Conservation Wildlife Natural History	Acquire, preserve & manage wetlands for habitat Values of wetlands & ecosystems How to manage a wetland How to ID, protect, & save wetland

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Audubon Society	ASK Center/OMSI Outreach	John Inskoop Learning Center	Wetlands Conservancy
ANNUAL BUDGET	\$ 70,000	\$ 20-25,000	\$ 20,000	Unknown
FUNDING SOURCES	Individuals—90% Grants, etc.—5%	Fees—95% Donations—5%	User fees—40% Grants—40% Contributions—20%	Membership—80% Grants & Contributions Fundraising Easements & Purchase Grants Donations
BUDGET BY CATEGORY	Staffing—60% Travel & Lodging—20% Materials—10%	Staffing—50% Travel—15% Materials—10% Misc. overhead—25%	Staffing—50% Travel—10% Materials—15% Misc. Overhead—25%	Volunteer Materials—unknown
STAFFING:	Volunteer—50% Paid—50%	Volunteer—5% Paid—95%	Volunteer—6 persons Paid—2 persons	Volunteer—100%
STAFFING BY TYPE	EE staff—1 Administration—.75	EE Staff—.25 Administration—.1	EE staff—8 Administration—2	Unknown
CLASS LENGTH	Less than 2 hrs.—60% 3-5 hrs.—10% 5-10 hrs.—10% 11-20 hrs.—20% More than 20 hrs.—10%	5-10 hrs.—80% 11-20 hrs.—20%	Less than 2 hrs.—90% 3-5 hrs.—10%	Less than 2 hrs.—100%
CONTACT HOURS	2 hrs.	7 hrs.	.75 hour (45 minutes)	1.5 hrs.
AGE GROUPS	Primary Adult Pre-school Senior Citizens High School	Primary Pre-School High School Adult	Primary High School Pre-School Adult	Adult High School Primary Pre-School
AREAS SERVED	Tigard-Tualatin-LO Area	Beaverton-Hillsboro area West side of Portland East Portland—west of I-205 Tigard-Tualatin-Lake Oswego Area	Canby-OR City-Milwaukie East Portland—west of I-205 East of I-205 Tigard-Tualatin-LO area Beaverton-Hillsboro area Vancouver West side of Portland	Tigard-Tualatin-LO area* East Portland—west of I-205 Canby-OR City-Milwaukie

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Audubon Society	ASK Center/OMSI Outreach	John Inskeep Learning Center	Wetlands Conservancy
CLASS TYPE	Groups—60% Individuals—40%	Groups—1% Individuals—99%	Groups—60% Individuals—40%	Basically white
USE BY DIFFERENT POPULATION GROUPS	Don't track—mostly upper middle-class white	ASK Center—minority attendance 50% of total	NA	
CHANGES IN PROGRAM USE IN LAST 5 YRS.	Increased general attendance	Increased attendance	Increase in attendance/more interest in solid waste and recycling	Increase in membership
SEASONAL PARTICIPATION	Increases during nice weather (spring, fall) & bird migrations	Highest attendance in summer, spring break, and winter break. ASK Ctr. has year-round programs	Heavy in spring and fall	Used year round for programs Slight increase during bird migrations
PREPARED MATERIALS	Yes	Yes	Yes--old curriculum that is out of date	Yes
MORE EE PROGRAMS	Yes--existing programs should be more accessible, affordable, be more in backyard & urban natural areas.	Yes--urban environmental ed can be fun!	Yes--along with better promotion & awareness of existing programs.	Yes--on value of open space resources and how to preserve them

APPENDIX A-3

Summary of Major Providers
of Environmental Education

*Multnomah County Parks Dept.
Tryon Creek State Park
Leach Botanical Garden
Hoyt Arboretum*

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Multnomah County Parks	Tryon Creek State Park	Leach Botanical Garden	Hoyt Arboretum
MISSION	Promote awareness, understanding, & appropriate use of natural & cultural resources of Multnomah County parks.	Increase awareness of value of greenspace—preservation of land education of young—encourage volunteer participation	Study of botany, horticulture, and landscape design, ethnobotany, and role of Johnson Creek in urban area.	Inspire people of all ages to develop an appreciation, interest and concern for trees and other plants and wildlife.
ESTABLISHED	1985	1975	1989	1977
NO. PEOPLE SERVED	About 7,000* (See Notes Section)	9-10,000	425 children (15 groups)	3,000 (formal programs) 10,000 (through literature)
SITES USED FOR PROGRAMS	Oxbow Park Proposed sites include: Beggar's Tick Marsh Blue Lake Park Sauvie's Island Schools & community ctrs.	Tryon Creek State Park	Leach Botanical Garden	Almost all in Hoyt Arboretum
3 SITES USED MOST OFTEN	NA		NA	Forest Park—1x or 2x/year Tryon Ck. Park—1x/every other year Leach Bot. Garden—1x/every other yr.
REASONS FOR USING SITES	NA		NA	
OBSTACLES TO MORE USE	NA		NA	No need to use other sites
5 MAIN TOPIC AREAS	Old growth forests Naturally occurring salmon runs Freshwater ecology Wildlife Water safety Ethnobotany Native American culture	Seasonal changes Plants Animals/Birds Levels of forest/succession Geology/Weather	Johnson Creek Plant Adaptation Photosynthesis Layers of the Forest Rare & Endangered Plants Ethnobotany	Natural history of Oregon native plants Interdependence of plants/animals in forest Plant physiology & how people affect plant environments Plant taxonomy & identification Ethnobotany

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Multnomah County Parks	Tryon Creek State Park	Leach Botanical Garden	Hoyt Arboretum
ANNUAL BUDGET	\$ 28,850**	\$ 38,550	Less than \$ 100	\$ 7,500
FUNDING SOURCES	Taxes—100%	Fees—71% Grants/sponsorships—24% Fundraising/donations—5%	General Budget—100%	City of Portland—99% Hoyt Arboretum Friends Found.—1%
BUDGET BY CATEGORY	Staffing—96% Materials—4%	* (See Notes Section)	Potential Intern Materials—100%	Staffing—96% Materials—2% Volunteer Support—2%
STAFFING:	Volunteer—15% Paid—85%	* (See Notes Section)	EE staff—8-10 Administration—1 (volunteer who also does EE)	Volunteer—80% Paid—20%
STAFFING BY TYPE	EE staff—1 Administration—(same as EE staff)	.5 FTE Educ. Dir. Year-Rd. 4 FTE Staff—Summer Day Camp	Volunteer—100%	EE staff—.3 Administration—.2
CLASS LENGTH	Less than 2 hrs.—97% 5-10 hrs.—3%	Range between 30 minutes to 6 hours.	Less than 2 hrs.—100%	Less than 2 hrs.—75% 3-5 hrs.—20% 11-20 hrs.—5%
CONTACT HOURS	1.5 hrs	Depends on program.	2 hrs. or less	2 hrs.
AGE GROUPS SERVED	Primary—48% Adult—42% High School—3% Preschool—3%	Primary Preschool Adult	Primary	Primary Adult College Pre-school High School
AREAS SERVED	East of I-205 Gresham-Troutdale-Corbett-Sandy East Portland (west of I-205)	West side of PDX Tigard-Tualatin-LO area Canby-OR City-Milwaukie area	East of I-205 East Portland (west of I-205) West side of Portland Tigard-Tualatin-LO area	East Portland & Gresham West Portland & Beaverton Vancouver/north of Columbia R. Outside metro area

SUMMARY OF MAJOR PROVIDERS OF ENVIRONMENTAL EDUCATION

PROGRAM:	Multnomah County Parks	Tryon Creek State Park	Leach Botanical Garden	Hoyt Arboretum
CLASS TYPE	Groups—40% Individuals—60%	* (See Notes Section)	Groups—100%	Groups—50% Individuals—50%
USE BY DIFFERENT POPULATION GROUPS	3% from mental/physical/emotional handicapped, at-risk youth, low-income seniors.	Male/female equal Mainly Caucasian Some Black & Hispanic students Small percentage of disabled	Same as PDX Public Schools	Equal amts of male/female Low no. physically disabled and ethnic groups
CHANGES IN PROGRAM USE OVER LAST 5 YEARS	Increase in attendance, especially for old-growth, Salmon Fest., and by schools.	Increase in pre-school group Great increase in overall attendance	Program attendance & interest increasing	Continues to increase slowly. Large increases when we get publicity. *
SEASONAL PARTICIPATION	School groups in spring/fall.*** General public in July/August. Salmon walk in October.	High use in spring, summer and fall	Heavy in spring (99%)	Depends on weather. Low in wet/cold and when hot.
PREPARED MATERIALS	No—working on this now.	Yes	Yes	Yes
NEED FOR MORE EE PROGRAMS	Yes—to improve community health. Potential for big audience in East County.	Yes Need for high-quality programs.	Yes—human interaction with the environment and identification of plants.	Yes
NOTES	* 12,000 w/Salmon Festival in 1990 15,000 w/Salmon Festival in 1989 ** \$ 48,550 w/Salmon Festival *** Now adding indoor school-progrms. for January-March	* Information not collected in these groups		* Increase in plant identification & more academic subjects & publicized environmental issues.

APPENDIX B

Original Interview Sheets

Audubon Society
ASK Center/OMSI Outreach
Hoyt Arboretum
John Inskeep Learning Center
Leach Botanical Garden
Multnomah County Parks Dept.
OMSI
Tryon Creek State Park
Washington Park Zoo
Wetlands Conservancy
World Forestry Center

ENVIRONMENTAL EDUCATION SURVEY

Provider: ASK Center / OMSI enrich

1. What is the primary mission of your environmental education program? _____

delighten kids + make aware of surroundings, let know about environment.

2. When was the educational program established? 40 yrs.

3. How many people do you serve per year? 5000 overall science, 1000 environ ed.

4. (a) What sites or areas do you typically use for your programs? OMSI, ASK Cntr., Oak's Bottom, Hoyt Arboretum, Mt St Helens - Apes Caves

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?
Oregon Coast, Vernonia, Oxbow Park, Eagle Crk, Fish Hatch, Gorge, Silver F, Ridgefield, Sawie's E.

- a) ~~VERNONIA~~ Vernonia - fossil digs
- b) Gorge - general nat History
- c) Arboretum - plants, forestry, recreation (hiking)

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

Enhance programs, go to places new to kids, show diversity

(d) Would you like to use these sites more often? Yes No
If yes, what obstacles prevent you from using the site more often? travel time

5. What are the 5 topics or subject areas you address most often in your ^{EE} program? (List in order of frequency).

- a) Zoo-ology - (Animals)
- b) Botany
- c) Outdoor Ed (~~general~~ general nat Hist)
- d) Insects
- e) Paleontology
- f) Oceanography

6. What is your total yearly budget for environmental education programs? 20-25 K

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>fees</u>	<u>95</u>
b) <u>donations</u>	<u>5</u>
c) _____	_____
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 50% Other (list): travel: 15%
Materials: 10% misc (overhead) 25%

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 5% Paid 95%

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 25 Administrative Staff 1

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

_____ <2 hrs. _____ 3-5 hrs. 80% 5-10 hrs. 20 11-20 hrs.
_____ >20 hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 7,000 7 hrs.

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[2] <5 (Pre-school) [1] 6-12 (Primary) [3] 13-17 (High School)
[Y] 17> (Adult) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|---|--|
| <input checked="" type="checkbox"/> East Portland (west of I-205) | <input type="checkbox"/> Beaverton-Hillsboro area |
| <input checked="" type="checkbox"/> West side of Portland | <input checked="" type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input type="checkbox"/> East of I-205 | <input type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 1% Individuals: 99%

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

ASK Center - minority pop - 50% of total
No data

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

Attendance has increased

18. Are there any seasonal patterns in program use? If so, please describe them.

Summer - Spring Break, Winter Break - highest attendance
ASK Ctr - year round programming. Summer (9wks)
covers mostly envir. ed.

19. Do you have prepared curriculum materials for your programs? Yes No

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

Yes - Urban Envir. Ed - Can be fun!

21. Do you know of other major providers that should be surveyed? PCC Rockcreek - Wetland,

22. Do you have any additional comments?

Teaching environmental ed. to minority children
(ie ASK Ctr) is a means of empowering them - building
skills & knowledge to make decisions about themselves,
the environment they live in and their future.

May we contact you for additional information?

Yes

No

Contact Carla Wade 274-4588

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

ENVIRONMENTAL EDUCATION SURVEY

Provider: Audubon Society

1. What is the primary mission of your environmental education program? Education w/ goals of enjoyment and PROTECTION of wildlife and ~~the~~ associated habitat.

2. When was the educational program established? ^{Formally} 1982

3. How many people do you serve per year? 5,000 ?

4. (a) What sites or areas do you typically use for your programs? ^{Audubon Society} Pittock Bird Sanctuary, Oaks Bottom, Chrystal Springs, Powell Butte,

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) Oaks Bottom - ~~3~~⁴ x monthly

b) Chrystal Springs - 4x monthly

c) Columbia River Slough - 1x monthly

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

Wildlife density, accessibility

(d) Would you like to you these sites more often? Yes No

If yes, what obstacles prevent you from using the site more often? lack of

programs to use the sites.

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

a) Birds - General

b) General Wildlife

c) General Natural History / Ecology

d) Birds - Specific Groups

e) Buts

6. What is your total yearly budget for environmental education programs? 70 K

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>individuals</u>	<u>95</u> 100 %
b) <u>grants etc</u>	<u>5</u> 10 %
c) _____	_____
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: ~~60~~ ⁶⁰ % Other (list): travel, lodging 30%
Materials: 20%

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 50% Paid 50%

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 1 Administrative Staff .75

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

50% < 2 hrs. 10% 3-5 hrs. 30% 5-10 hrs. 20% 11-20 hrs.
10% > 20 hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 2

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[3] < 5 (Pre-school) [1] 6-12 (Primary) [5] 13-17 (High School)
[2] 17 > (Adult) Other: 4 senior

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|---|--|
| <input type="checkbox"/> East Portland (west of I-205) | <input type="checkbox"/> Beaverton-Hillsboro area |
| <input type="checkbox"/> West side of Portland | <input checked="" type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input type="checkbox"/> East of I-205 | <input type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 60% Individuals: 40%

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

don't track
mostly upper mid class wt.

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

increase general attendance

18. Are there any seasonal patterns in program use? If so, please describe them.

Increased during nice weather (spring, fall)
+ bird migration

19. Do you have prepared curriculum materials for your programs? Yes No

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

yes, existing programs
need to be more accessible, affordable,
more in backyard + urban natural areas

21. Do you know of other major providers that should be surveyed? _____

22. Do you have any additional comments?

May we contact you for additional information? Yes No

Contact _____
Jennifer DeL...

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

ENVIRONMENTAL EDUCATION SURVEY

Provider: Hoyt Arboretum

1. What is the primary mission of your environmental education program? to inspire people of all ages to develop an appreciation, interest, and concern for trees and other plants and wildlife.

2. When was the educational program established? 1977

3. How many people do you serve per year? 3,000 through formal programs; aprox. 10,000 with literature

4. (a) What sites or areas do you typically use for your programs? Almost all within arboretum grounds and garage/classroom

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) Forest Park - once or twice a year

b) Tryon Creek State Park - once every other year

c) Leach Gardens - once every other year

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

Broaden the background of our nature guides

(d) Would you like to you these sites more often? Yes No

If yes, what obstacles prevent you from using the site more often? _____

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

a) Natural History of Oregon's native plants

b) Interdependence of plants and animals in forest environment

c) Plant physiology and how people affect plant environments

d) Plant taxonomy and identification

e) Ethnobotany

6. What is your total yearly budget for environmental education programs? \$7,500

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>City of Portland</u>	<u>99%</u>
b) <u>Hoyt Arboretum Friends Foundation</u>	<u>1%</u>
c) _____	_____
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 96% Other (list): Volunteer Support 2%
Materials: 2% _____

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 80% Paid 20%

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff .3 Administrative Staff .2

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

75% <2 hrs. 20% 3-5 hrs. _____ 5-10 hrs. 5% 11-20 hrs.
_____ 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 2 hour

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[4] <5 (Pre-school) [1] 6-12 (Primary) [5] 13-17 (High School) (very few)
[2] 17 > (Adult) 3 Other: College

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

1) East Portland (west of I-205)

2) West side of Portland

3) East of I-205

4) Vancouver/north of Columbia R.

1) Beaverton-Hillsboro area

2) Tigard-Tualatin-Lake Oswego area

3) Canby-Oregon City-Milwaukie area

4) Other: _____

I rewrote this to give you a better idea.

1) East Portland + Gresham
2) West Portland + Beaverton

3) Vancouver
4) outside metropolitan area

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 50%

Individuals: 50%

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

Equal amts. male/female; very limited physically disabled (due to lack of publicity?); not generally used by ethnic groups

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

Continues to increase slowly all the time, but when adequate publicity is obtained we get large increases. Popular topics have continued to be popular, but there seems to be an increase →

18. Are there any seasonal patterns in program use? If so, please describe them.

Weather determines attendance. Both wet, cold weather and the hottest part of the summer cause reduced interest in our programs. We have very little room for inside programming.

19. Do you have prepared curriculum materials for your programs? Yes No

These materials are not well organized, but we are able to provide activities and resource materials.

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

Yes because more use is made of close-by programs (neighborhood) but my priority would be to supply more money, time, and expertise to already existing programs.

17. continued

of interest in plant identification and more academic subjects. Also more interest in highly publicized environmental issues. Changes in specific populations who participate appears to depend on our out-reach efforts. Involving blacks appears to depend on talking with teachers in NE schools; church groups, and obtaining publicity in The Skanner, etc.

21. Do you know of other major providers that should be surveyed? Audubon, Tryon Creek State Park,
Leach Garden, World Forestry Center

22. Do you have any additional comments?

May we contact you for additional information? Yes No

Contact Sue Thomas 228-8732

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

JOHN INSKEEP ENVIRONMENTAL LEARNING CENTER

ENVIRONMENTAL EDUCATION SURVEY

Provider: _____

1. What is the primary mission of your environmental education program? _____

To provide information on how humans and wildlife
can coexist - How we can protect habitat

2. When was the educational program established? 1975

3. How many people do you serve per year? 20,000

4. (a) What sites or areas do you typically use for your programs? ELC

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) other schools

b) variety of sites around region - travelling tours (field trips)

c) _____

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

- assemblies and classroom programs are requested

- interesting natural history features

(d) Would you like to ^{use} you these sites more often? Yes No
If yes, what obstacles prevent you from using the site more often? _____

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

a) Recycling

b) Habitat

c) Resource Conservation

d) wildlife

e) Natural History

6. What is your total yearly budget for environmental education programs? \$ 20,000

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>user fees</u>	<u>40</u>
b) <u>grants</u>	<u>40</u>
c) <u>contributions</u>	<u>20</u>
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 50% Other (list): travel 10%
Materials: misc. - overhead 25%

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 6 Paid 2

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 8 Administrative Staff 2

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

90% < 2 hrs. 10% 3-5 hrs. _____ 5-10 hrs. _____ 11-20 hrs.
_____ 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 45 min

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[3] < 5 (Pre-school) [1] 6-12 (Primary) [2] 13-17 (High School)
[4] 17 > (Adult) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|--|--|
| <input type="checkbox"/> East Portland (west of I-205) | <input checked="" type="checkbox"/> Beaverton-Hillsboro area |
| <input checked="" type="checkbox"/> West side of Portland | <input checked="" type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input checked="" type="checkbox"/> East of I-205 | <input type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input checked="" type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 60 Individuals: 40

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

n/a

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

increase in attendance, more interest
in solid waste/recycling

18. Are there any seasonal patterns in program use? If so, please describe them.

heavy in spring and fall

19. Do you have prepared curriculum materials for your programs? Yes No

an old site specific curriculum that is out of date

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

yes, along with better promotion and awareness
of existing programs

21. Do you know of other major providers that should be surveyed? _____

22. Do you have any additional comments?

May we contact you for additional information?

Yes

No

Contact Leslie Winnop, Jerry Herrmann

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems, and providing skills for finding solutions to environmental problems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

ENVIRONMENTAL EDUCATION SURVEY

11/7/90
Provider: Jack Botanical
Bonnie Brunkopf
& Betty Hansen

1. What is the primary mission of your environmental education program?

See attached goals statement

(Program also addresses ethnobotany, rare & endangered species & why, Johnson Creek as urban creek)

2. When was the educational program established? 1989

3. How many people do you serve per year? 1989 - 425 children (15 groups)

4. (a) What sites or areas do you typically use for your programs? on site

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) N/A

b)

c)

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

N/A

(d) Would you like to ^{use} these sites more often? Yes No

If yes, what obstacles prevent you from using the site more often? N/A

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

a) Johnson Creek (history, temperature, riparian, wharf, effects of H₂O level, sedimentation, H₂O quality)

b) Plant adaptation

c) Photosynthesis

d) Layers of the forest

e) Rare & Endangered Plants

f) Ethnobotany

6. What is your total yearly budget for environmental education programs? less than \$100⁰⁰

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>General Budget</u>	<u>100%</u>
b) <u>(potential internship</u>	
c) <u>to augment EE program,</u>	
d) <u>funded from endowment)</u>	
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: intern ^{potential} Other (list): fr
Materials: 100%

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 100% Paid _____

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 8-10 Administrative Staff 1 (volunteer
Coordinator
who also
does EE)

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

< 2 hrs. _____ 3-5 hrs. _____ 5-10 hrs. _____ 11-20 hrs.
_____ 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? to 2 hrs.

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

< 5 (Pre-school) 1-6 6-12 (Primary) 13-17 (High School)
 17 > (Adult) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|--|--|
| <input checked="" type="checkbox"/> East Portland (west of I-205) | <input type="checkbox"/> Beaverton-Hillsboro area |
| <input checked="" type="checkbox"/> West side of Portland | <input checked="" type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input type="checkbox"/> East of I-205 | <input type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input checked="" type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 100% 28-30 students ^{1 class at a time} Individuals: 0

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

classes from Portland Public school, so
same demographics

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

Program began 1989 -
Program attendance & interest increased -
All available program times filled during
Spring. Still monitoring new curriculum

18. Are there any seasonal patterns in program use? If so, please describe them.

Heavy in spring. (1990s)

19. Do you have prepared curriculum materials for your programs? Yes No

Have some introductory materials (glossary,
brief outline of curriculum, intro to Leach
Botanical Garden)

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

yes, human interaction with environment
& recognition
identification of botanical parts

21. Do you know of other major providers that should be surveyed? Audubon, Zoo,
Outdoor School, Scouts, Inyon Ct,

22. Do you have any additional comments?

Need more EE, could benefit from
being consortium ^(among providers) to compare programs -
Region wide program would be good.
Need strong funding pool for EE programs.
Have good resource pool for proofing curriculum
for accuracy. Reference library for EE materials

May we contact you for additional information? Yes No

Contact Bonnie Brunkow

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

Please keep Bonnie informed of
progress & process - Place Leah
on mailing list for Metro Greenspace
Program mtgs & updates.

Spring 1988

Accepted
Board
1989

Proposed Ed Policy

Concepts important to us: experiential learning (hands on), conservation vocabulary, Leach an example of protection, conservation.

GOALS

- I. As a botanical garden, Leach Garden will program the site as meeting place and educational center for the study of botany, horticulture, and landscape design.
 - A. Leach Garden will offer classes to the public on botany, horticulture and landscape design.
 - B. Introductory tours to Leach Garden will include the purpose of a botanical garden. ("rules" for garden use?)
 - C. Specialized tours of Leach Garden will feature the study of botany, horticulture and landscape design.
 - D. Leach Garden will offer educational and training programs (internships and/or apprenticeships) in horticulture, botany and landscape design.
 - E. A children's education program will include the following aspects of botany: identify parts of a flower, plant identification in the garden, uses of plants in the garden and plant reproduction (pollination, fruiting).
 - F. A children's education program will include the purpose of a botanical garden.

II. Leach Garden will program the site to increase appreciation and awareness of the natural history of the region.

A. Leach Garden will offer classes to the public on regional history, conservation, and habitats of plants and animals.

B. Introductory tours to Leach Garden will include Leach history, conservation and habitats of plants and animals (interdependence).

C. Vocational and educational training programs will include regional history, conservation and habitats of plants and animals.

D. A children's education program will include Leach history, Johnson Creek history and fossils.

E. A children's education program will teach the concept of habitat (the interdependence of plants and animals) and demonstrate examples of plant and animal habitats in the garden.

F. A children's education program will teach and provide a learning experience about conservation.

G. Leach Garden will research and document Native American and pioneer history of the region, and regional history through the 1930's.

ENVIRONMENTAL EDUCATION SURVEY

Provider: Mulholland County Parks

1. What is the primary mission of your environmental education program? to promote understanding, understanding and appropriate use of the natural and cultural resources of Mulholland County Parks.

2. When was the educational program established? 1955

3. How many people do you serve per year? ~7,000 (12,000 with Salmon Festival)
(3,000 15,000 in 1989) ¹⁹⁹⁰

4. (a) What sites or areas do you typically use for your programs? Oakview Park almost always.

Developing programs for Higgins Tack Marsh, Blue Lake Park, Seaview Island
Also do programs at schools and community centers.

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

- a) not applicable / see above
- b) _____
- c) _____

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

not applicable

(d) Would you like to you these sites more often? Yes No
If yes, what obstacles prevent you from using the site more often? not applicable

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

- a) old growth forests (ancient forests)
- b) naturally - spawning salmon runs
- c) freshwater ecology (riparian habitat, river systems, wetland)
- d) wildlife
- e) water safety
ethnobotany
Native American Culture

6. What is your total yearly budget for environmental education programs? \$28,850 (\$48,850 with Salmon Festival)

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>taxes</u>	<u>100%</u>
b) _____	_____
c) _____	_____
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 96% Other (list): _____
Materials: 4% _____

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 15% Paid 85%

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 1 Administrative Staff (Same person)

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

97% < 2 hrs. _____ 3-5 hrs. 3% 5-10 hrs. _____ 11-20 hrs.
_____ 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 1.5

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[4] < 5 (Pre-school) ^(3%) [1] 6-12 (Primary) ^(48%) [3] 13-17 (High School) ^(3%)
[2] 17 > (Adult) ^(42%) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- East Portland (west of I-205) Beaverton-Hillsboro area
 West side of Portland Tigard-Tualatin-Lake Oswego area
 East of I-205 Canby-Oregon City-Milwaukie area
 Vancouver/north of Columbia R. Other: Washburn / Troutdale / Corbett / Sandy

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 40% Individuals: 60%

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

Total Special Population Participation - 3% of v.s. hrs-hours.

Special Population = Mentally / Physically / Emotionally Handicapped, At Risk youth, low income and Seniors attending is a goal. Ethnic participation not tracked.

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

General attendance has steadily increased. Interest in old growth and salmon has skyrocketed. Participation by schools increasing.

18. Are there any seasonal patterns in program use? If so, please describe them.

Strong seasonal patterns. School groups in spring/fall. High general public attendance in July/August. Baiting programs in June. Salmon walks in October. Now adding indoor school programs for Jan. thru March.

19. Do you have prepared curriculum materials for your programs? Yes No

working on this now.

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

There is definitely a need for ee, to improve community health.

There is not a consumer-perceived demand. Design a well-targeted program, however, and you will find yourself with a big audience, particularly in East County.

21. Do you know of other major providers that should be surveyed? _____

22. Do you have any additional comments?

Our program, going on seven years old, was designed to utilize green space for interpretation and environmental education. We have extremely high-quality interpretive/env. ed sites within our system (i.e. county land) that are currently ^{non-}utilized due to lack of ~~it~~ env. ed. staff and funding.

May we contact you for additional information? Yes No

Contact Deb Scrivens, 663-4708

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

ENVIRONMENTAL EDUCATION SURVEY

Provider: OMSI - Outreach

1. What is the primary mission of your environmental education program? TO PROVIDE Positive, Quality
HANDS-ON EXPERIENCES IN ENVIRONMENTAL AWARENESS & APPRECIATION, TOWARDS THE
GOAL TO OPEN AVENUES FOR STUDENTS TO BECOME INFORMED DECISION-MAKERS PERTAINING
TO ENVIRONMENTAL ISSUES.

2. When was the educational program established? 40 yrs ago

3. How many people do you serve per year? 4000 plus

4. (a) What sites or areas do you typically use for your programs? HANCOCK FIELD STATION, CAMP KIWANILING, ^(NORTHWEST COAST)
SOUTH SLOUGH ESTUARY, COLUMBIA GORGE, MT. ST. HELENS, NEWSPAPERS OR RESOURCES,

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

- a) HANCOCK (9 MONTHS/YR. - EVERY DAY)
- b) KIWANILING (NORTHWEST COAST) 7 MONTHS/YR
- c) PUGET SOUND MARINE ZONE - 1 month

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

RESOURCE POTENTIAL, FACILITY AVAILABILITY, DISTANCE FROM OMSI, SAFETY

(d) Would you like to use these sites more often? Yes No
If yes, what obstacles prevent you from using the site more often? WEATHER, TRAVEL TIME,

TARGET GEOLOGY

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

- a) NATURAL HISTORY / GENERAL ECOLOGICAL CONCEPTS
- b) AQUATIC SYSTEMS (FRESH & SALT WATER)
- c) GEOLOGY / PALEO
- d) LAND CONSERVATION AWARENESS
- e) HUMAN ENVIRONMENTAL IMPACT

6. What is your total yearly budget for environmental education programs? \$ 500,000 / yr.

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>FEES FROM INDIVIDUALS</u>	<u>50%</u>
b) <u>FEES FROM GROUPS</u>	<u>25%</u>
c) <u>GRANTS</u>	<u>15%</u>
d) <u>INTERNAL FINANCIAL SOURCE</u>	<u>10%</u>
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 55% Other (list): TRAVEL 15% / FACILITY RENTAL 10%
Materials: 5% FOOD 20%

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 5% Paid 95%

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 10 Administrative Staff 1.5

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

_____ < 2 hrs. _____ 3-5 hrs. 10% 5-10 hrs. _____ 11-20 hrs.
90% 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 40 hrs.

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[4] <5 (Pre-school) [1] 6-12 (Primary) [2] 13-17 (High School)
[3] 17 > (Adult) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|---|--|
| <input type="checkbox"/> East Portland (west of I-205) | <input type="checkbox"/> Beaverton-Hillsboro area |
| <input checked="" type="checkbox"/> West side of Portland | <input checked="" type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input type="checkbox"/> East of I-205 | <input type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 70% Individuals: 30%

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

mostly upper-middle class white -

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

DRAMATIC INCREASE, ESPECIALLY MARINE RELATED PROGRAMS & RESIDENTIAL ODS

18. Are there any seasonal patterns in program use? If so, please describe them.

YES - Spring PIZZA in winter months

19. Do you have prepared curriculum materials for your programs? Yes No

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

ALWAYS! TO WIDE!

21. Do you know of other major providers that should be surveyed? _____

22. Do you have any additional comments?

May we contact you for additional information?

Yes

No

Contact PATRICK WILLIS

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

JENNIFER WAS QUITE POLITE!

ENVIRONMENTAL EDUCATION SURVEY

Provider: Washington Park ZOO

1. What is the primary mission of your environmental education program? Core school

mission and values statement.

2. When was the educational program established? 1975

3. How many people do you serve per year? 1,000,000?

4. (a) What sites or areas do you typically use for your programs? Zoo grounds.

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) Snake Mountain

b) Indian Garden

c) Trilobite Hills Nature Park

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

Our site programs are located in urban wildlife habitat.

(d) Would you like to use these sites more often? Yes No

If yes, what obstacles prevent you from using the site more often? Internal organizational

problems typical of early stages in ~~new~~ new programs development.

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

a) Species becoming endangered because of habitat loss.

b) Species dependence upon specific habitats (adaptation)

c) Habitat complexity (diversity)

d) aesthetic/affective value of wildlife

e) Importance of individual action

6. What is your total yearly budget for environmental education programs? \$ 304,664

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>Zoo Tax Base</u>	<u>50%</u>
b) <u>Zoo Revenues</u>	<u>50%</u>
c) _____	_____
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 54 Other (list): _____
Materials: 46 _____

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer 60 Paid 40

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff 2.5 Administrative Staff 3.5
volunteers 200

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

almost all <2 hrs. a few 3-5 hrs. none 5-10 hrs. none 11-20 hrs.
none 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 90 minutes

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[2] <5 (Pre-school) [1] 6-12 (Primary) [4] 13-17 (High School)
[3] 17 > (Adult) Other: Family groups

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|---|--|
| <input checked="" type="checkbox"/> East Portland (west of I-205) | <input checked="" type="checkbox"/> Beaverton-Hillsboro area |
| <input type="checkbox"/> West side of Portland | <input type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input type="checkbox"/> East of I-205 | <input checked="" type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 2 Individuals: 7

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

Not relevant for environmental purposes.

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

Increased general attendance.

18. Are there any seasonal patterns in program use? If so, please describe them.

Seasonal pattern only for program.

19. Do you have prepared curriculum materials for your programs? Yes No

For school ~~visit~~ group visits.

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

I don't perceive a demand for more environmental education per se. I think it is more a matter of making existing programming and resources fit other needs i.e. recreation, existing curriculum requirements.

ENVIRONMENTAL EDUCATION SURVEY

Provider: The Wetlands Conservancy

1. What is the primary mission of your program? to own and manage wetlands and provide education on wetland values; the Conservancy also testifies before governmental bodies such as city councils, county commission, Legislature

2. When was the educational program established? 1981

3. How many people do you serve per year? unknown

4. (a) What sites or areas do you typically use for your programs? Nyberg Creek Wetland; Hedges Creek Marsh; Pascuzzi Pond; Vitis-Losli Wetland; Hart Wetland; Apache Bluff Wetland; Mintorn Springs (in donation process from Milwaukee residents)

(b) If you use sites outside your facility, what are the 5 sites you use most often and how often do you use these sites?

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

(c) Why do you use these sites? *(Provide special facilities, nothing like it in metro area, etc.)* educational tours; demo sites for neighborhood preserves; available for some teacher-use; observe wildlife; "passive" use - preservation of wildlife habitat -the sites are unique, readily accessible and in need of protection

5. What are the 5 topics or subject areas you address most often in your program? *(List in order of frequency).*

- a) acquire, preserve & manage wetlands for wildlife habitat
- b) educational - values of wetlands; ecosystems (plants & animals)
- c) educational - how to manage a wetland
- d) educational - how to "i.d." a wetland; how to protect and save
- e) educational - constructed and created wetlands/ sewage treatment

6. What is your total yearly budget for environmental education programs? unknown (changing as they are currently in production of educational documents)

7. How are your programs funded? (Begin with the largest source of funding)

- 1) Membership (about 80%)
- 2) Grants and Contributions
- 3) Fund Raising (for specific aquisitions)
- 4) Donations
- 5) Easements and purchase grants

8. How is your budget for environmental education programs allocated among the following categories?

Staffing: volunteer Other (list): _____

Materials: unknown (see # 6 above) Also produce a Newsletter, "Wetlands"

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer All - 100% Paid _____

10. What percentage of your total educational staff is administrative? unknown - people share alot of different tasks; they have a 14 member board of directors

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

sample: Hedges Creek Marsh tour is 1½ hours

X <2 hrs. _____ 3-5 hrs. _____ 5-10 hrs. _____ 11-20 hrs.

_____ 20> hrs.

12. What is the average number of "contact hours" per class for your environmental education program? 1½ hours

13. How many students do you serve every year? unknown (not just students; more the general public)

Also used by Project Wild classes; Eagle and Cub Scouts; and the the Oregon Grad. Institute for water sampling

14. What age groups do you generally attract or serve (rank from 1 to 4, with 1 being the greatest number)?

[4] <5 (Pre-school) [3] 6-12 (Primary) [2] 13-17 (High School)

[1] 17> (Adult) Other: _____

15. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

general public
(mostly Tigard Hills area)
area of residence

- East Portland (west of I-205)
- West side of Portland
- East of I-205
- Vancouver/north of Columbia R.
- Beaverton-Hillsboro area
- Tigard-Tualatin-Lake Oswego area
- Canby-Oregon City-Milwaukie area
- Other: _____

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation.

exact % unknown; basically white majority

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

increasing membership; interest in how to i.d. and protect through proper agencies;

increasing production of educational documents

18. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 50% Individuals: 50%

19. Are there any seasonal patterns in program use? If so, please describe them.

use sites all year; slight increase during bird migratory seasons

20. Do you have prepared curriculum materials for your programs? Yes No

Producing: educational documents on wetland plants, on living near a wetland, how to protect a save a wetland for the general public, how to i.d. a wetland; also working on a manual on how to manage a wetland; maps, soils, plants, land use, etc

21. Do you think there is a need and demand for more environmental education programs?

Yes - on the value of open-space resources; and on how to preserve these areas

22. Do you know of other major providers that should be surveyed? _____

23. Do you have any additional comments?

Owens urban wetland parcels totaling 50 acres; does not become involved in litigation or lobbying; seek resolution through working with all involved;

This summer, '90, sponsored with PSU, EPA and CH2M Hill, a symposium on constructed and created wetlands; currently working on creation of large wetland near Forest Grove with USA and OR Waterfowl & Wetlands Assoc.; "Hart Wetland" project in a Tigard neighborhood is a sample of current creation of residential wildlife habitat

May we contact you for additional information? Yes No

Contact Larry Kurtz, Info. Director; or Jack Broome, President

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

*prepared by Jan Larson
11-90*

ENVIRONMENTAL EDUCATION SURVEY

Provider: World Forestry Center

1. What is the primary mission of your environmental education program? Education concerning FORESTS. (Emphasis on FORESTRY + Commodoty Education moving toward traditional Community EE -

2. When was the educational program established? 1973

3. How many people do you serve per year? 3400 - EE Programs
40 K Travelling Exhibit

4. (a) What sites or areas do you typically use for your programs? 4 Buildings on Campus, Magnes Tree Farm, ^{Hoyt} Arboretum.

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) Mag. Tree Farm - Year round

b) Arboretum (Hoyt) - Year round

c) _____

(c) Why do you use these sites? (Provide special facilities, nothing like it in metro area, etc.)

They are here.

(d) Would you like to you these sites more often? Yes No

If yes, what obstacles prevent you from using the site more often? _____

Lack of programs. Shifting priorities.

5. What are the 5 topics or subject areas you address most often in your program? (List in order of frequency).

a) Rainforest

b) Ancient Forest

c) Gen Forest Ecology

d) Forestry

e) Careers in Forest stuff.

6. What is your total yearly budget for environmental education programs? 75 K

7. How are your programs funded? (Begin with the largest source of funding)

SOURCE	% OF TOTAL EE FUNDING
a) <u>General operating fund</u>	_____
b) <u>admissions</u>	_____
c) <u>program fees</u>	_____
d) <u>scholarship/donations</u>	_____
e) <u>special fund raising events</u>	_____

8. How is your budget for environmental education programs allocated among the following categories? (Please list by percentage)

Staffing: 75% Other (list): travel: 20%
Materials: 5%

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer _____ Paid 100%

10. What is your total number of environmental education staff and how many are administrative?

Total Environmental Education Staff ~~1~~ 1.5 Administrative Staff .5

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. (The figures represent the total time an individual would spend in each program.)

90% < 2 hrs. _____ 3-5 hrs. 10% 5-10 hrs. _____ 11-20 hrs.
_____ 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? 3600

13. What age groups do you generally attract or serve (Rank from 1 to 4, with 1 being the greatest number)?

[3] < 5 (Pre-school) [2] 6-12 (Primary) [4] 13-17 (High School)
[1] 17 > (Adult) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|---|--|
| <input checked="" type="checkbox"/> East Portland (west of I-205) | <input checked="" type="checkbox"/> Beaverton-Hillsboro area |
| <input checked="" type="checkbox"/> West side of Portland | <input type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input checked="" type="checkbox"/> East of I-205 | <input checked="" type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input type="checkbox"/> Vancouver/north of Columbia R. | <input checked="" type="checkbox"/> Other: Outside Metro |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: 50% Individuals: 50%

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

From Community Ed to Gen Nat History
Trade Show + Hobby Events shift to Programs.
+ Tours

18. Are there any seasonal patterns in program use? If so, please describe them.

No

19. Do you have prepared curriculum materials for your programs? ~~Yes~~ No

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

No need for more ^{physical} programs.

More access needed for existing programs.
More walks + talks for average citizen.

Emphasize - Teacher education, direct, all materials

21. Do you know of other major providers that should be surveyed? State Water DBA

U.S. Forest Service → Mt Hood newsletter

Clifford Pirchot

22. Do you have any additional comments?

C.G. Kangler Dist

May we contact you for additional information?

Yes

No

Contact

Rick Zenn Roserty Center

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

ENVIRONMENTAL EDUCATION SURVEY

Provider: _____

1. What is the primary mission of your environmental education program? _____

2. When was the educational program established? _____

3. How many people do you serve per year? _____

4. (a) What sites or areas do you typically use for your programs? _____

(b) If you use sites outside your facility, what are the 3 sites you use most often and how often do you use these sites?

a) _____

b) _____

c) _____

(c) Why do you use these sites? *(Provide special facilities, nothing like it in metro area, etc.)*

(d) Would you like to use these sites more often? Yes No
If yes, what obstacles prevent you from using the site more often? _____

5. What are the 5 topics or subject areas you address most often in your program? *(List in order of frequency).*

a) _____

b) _____

c) _____

d) _____

e) _____

6. What is your total yearly budget for environmental education programs? _____

7. How are your programs funded? *(Begin with the largest source of funding)*

SOURCE	% OF TOTAL EE FUNDING
a) _____	_____
b) _____	_____
c) _____	_____
d) _____	_____
e) _____	_____

8. How is your budget for environmental education programs allocated among the following categories? *(Please list by percentage)*

Staffing: _____ Other (list): _____

Materials: _____

9. Approximately what percentage of education staff hours is volunteer and paid?

Volunteer _____ Paid _____

10. What is your total number of environmental education staff and how many are administrative ?

Total Environmental Education Staff _____ Administrative Staff _____

11. We're also interested in knowing how long your classes are. Please describe how your classes are distributed among the following groups. *(The figures represent the total time an individual would spend in each program.)*

_____ <2 hrs. _____ 3-5 hrs. _____ 5-10 hrs. _____ 11-20 hrs.
_____ 20 > hrs.

12. What is the average number of "contact hours" for each student per class for your environmental education program? _____

13. What age groups do you generally attract or serve *(Rank from 1 to 4, with 1 being the greatest number)?*

<5 (Pre-school) 6-12 (Primary) 13-17 (High School)
 17 > (Adult) Other: _____

14. Rank the top three areas where most of your students come from, with 1 representing the area of the greatest number of students.

- | | |
|---|---|
| <input type="checkbox"/> East Portland (west of I-205) | <input type="checkbox"/> Beaverton-Hillsboro area |
| <input type="checkbox"/> West side of Portland | <input type="checkbox"/> Tigard-Tualatin-Lake Oswego area |
| <input type="checkbox"/> East of I-205 | <input type="checkbox"/> Canby-Oregon City-Milwaukie area |
| <input type="checkbox"/> Vancouver/north of Columbia R. | <input type="checkbox"/> Other: _____ |

15. Describe the ratio of students in terms of individuals and groups? (Example: 60% groups/40% individuals)

Groups: _____ Individuals: _____

16. Describe the participation in environmental education programs by ethnic and other population groups (male/female use, physically disabled, Hispanics, etc.) and estimate the relative percentages of total participation by group.

17. How has the use of your programs changed over the last 5 years? (Increases or decreases in general attendance; changes in use by certain population groups; greater/lesser interest in specific subjects, etc.)

18. Are there any seasonal patterns in program use? If so, please describe them.

19. Do you have prepared curriculum materials for your programs? Yes No

20. Do you think there is a need and demand for more environmental education programs in the metropolitan region? What areas need to be emphasized more?

21. Do you know of other major providers that should be surveyed? _____

22. Do you have any additional comments?

May we contact you for additional information?

Yes

No

Contact _____

ENVIRONMENTAL EDUCATION: Education with the goals of understanding and appreciating the earth, its life forms, and man's interactions with its systems.

ADDITIONAL SPACE FOR NOTES AND COMMENTS

