

METRO PARKS AND GREENSPACES

# Education Plan

*“When we try to pick out anything by itself, we  
find it hitched to everything else in the universe.”*

John Muir

**Here's a true little story from my life as an environmental educator in the great Pacific Northwest:**

I am walking quietly on a soft trail through the old-growth forest at Oxbow Regional Park on a cold, rainy morning. Behind me follow eight very excited 2nd graders from the outer eastside of Portland. We stop to admire a large Douglas fir, close to 800 years old, growing up from the side of a hill. One child notes that the giant trunk has a distinct curve to it.

“Why is the tree leaning?” he asks.

“Well, as it was growing it was curving upward, trying to reach...well, what's up in the sky that trees are always trying to reach?” I ask, in reply.

“GOD!!!”

“Well...(hmm, how do I handle this one?)...okay...what ELSE is up there that the trees might be trying to reach?”

“BIRDS!!!”

“Hmmm, yeah, that's a great idea!  
(beautiful...and why not?)

“BUT I'm thinking of something else, I know you guys are growing up in Oregon and you don't see it very often, but there IS something else in the sky...”

The children look up again.

“CLOUDS!!!”

“Yes! And BEHIND the clouds there is a BIG YELLOW THING called...?”

“OH!!! The Sun?”

“YES!!!”

We all sigh in relief, and continue on our walk, accompanied by the sweet sounds of Winter Wrens, Brown Creepers, and rain falling on the trees.



**Elisabeth Neely  
Oxbow Regional Park Naturalist**

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# Introduction

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## Purpose of the Education Plan

An ambitious effort is taking place in the Portland metropolitan area to establish and protect a regional web of parks and greenspaces linked by river and stream corridors and a system of trails. Citizens and local governments are working with Metro to assure that people have access to nature close to home as well as new ways to get to work, school or shopping. Metro is working to ensure that each citizen in the region has access to nature and that there will be regional natural resources available for future generations.

Metro Parks and Greenspaces acquires, protects, plans for, manages and maintains components of this regional system of parks, natural areas, trails and greenways. The department plays a significant role in successfully implementing the Metropolitan Greenspaces Master Plan and carrying out the department's mission. Through a coordinated approach that includes public outreach, public master planning, environmental education and restoration grants, volunteerism, and environmental education and interpretive programs, we engage the public in and provide regional coordination for the stewardship of the region's parks, trails and natural areas.

The purpose of this Education Plan is to provide a guiding document for the delivery of Metro Parks and Greenspaces environmental education and interpretive programs and to clarify a shared vision of the future of this regional program.

The education program began in one single park in 1985, with a focus on personal delivery of programs. Since then, our program has grown remarkably. (A brief history of the education program can be found in Appendix A.) Today a comprehensive education plan that is regional in scope and addresses interpretive signage, public programs, school programs, nature centers, etc. is needed for the education program to continue to grow and develop along with the department.

The Education Plan will:

- Discuss the need for environmental education, outline relevant policy directives and describe our educational philosophy and goals;
- Describe our current programs including different audiences and how we reach them, different levels of education provided, and criteria for prioritizing programs;
- Express our vision for the future, make recommendations about current and future programs and define a timeline for implementation of the recommendations.

## **The Need for Environmental Education**

The need for environmental education and interpretation in parks can be stated on many levels. From the largest perspective, North Americans, per capita, are the largest consumers of natural resources and producers of environmental waste on the planet. It can be argued that it is therefore incumbent on them to become environmentally educated to reduce their individual and societal impact on the world's resources. The United States could become the world's leading exporter of environmentally sound technologies. This goal is in alignment with our nation's expressed desire for a healthy environment and a strong economy.

On a state and regional level, public decisions about natural resources affect the daily lives of virtually every citizen in Oregon. The state prides itself for its scenic beauty and the quality of life that results from access to natural areas. Interpretive programs in parks offer the average citizen respite from a busy modern world. The psychological, societal and economic benefits of recreational programs in natural settings is well documented.

Part of Metro's stated mission is to ensure the citizen's of the region access to nature and resources for future generations. Environmental education plays a large role in realizing that mission.

It is impossible to over emphasize the current need by schools for any agency involved with natural resources to also be involved in environmental education. State standards for schools today in Oregon involve community-based education. Students studying natural resources are required to use the science inquiry method to identify, research and help solve real life problems in the field, using equipment comparable to that used by professionals in wildlife and forest management, public land planning, wetland delineation, etc. Meeting these standards is not possible without the involvement of agency personnel in teacher training programs and student projects.

Today, in spite of the fact that environmental education programs have proliferated in the Portland region (such as the programs offered by Tualatin Hills Parks and Recreation District or Jackson Bottoms Wetland Preserve), demand for all sorts of programs for schools and groups still exceeds supply. Metro's environmental education staff is frequently faced with the situation of not having the time to provide a program for every group that wants one, and having to choose one group over another, or one school over another.

Finally, environmental education and interpretation programs can solve the resource management problems encountered by park managers. The salmon serve well to illustrate this point. At Oxbow Regional Park, the native run of Sandy River Fall Chinook were seriously threatened by poachers before 1985, and all four park rangers devoted a considerable amount of time each autumn to trying to apprehend these law breakers. After the interpretive and environmental programs focused on this run of fish, public sentiment for their protection ran so high that the Oregon Department of Fish and Wildlife closed the spawning areas to fishing. Crowds of people continued to spend time at the spawning areas, but now they were not poachers. They were (and still are) people who simply want to view, and be inspired by, the salmon. Now the rangers spend their time each autumn preparing for Salmon Festival instead of trying to catch poachers.

## Policy Directives

The 1992 Metropolitan Greenspaces Master Plan outlines steps to create a cooperative, integrated, regional system of natural areas, open spaces trails and greenways for wildlife and people. The Plan also states "Metro's role will be to actively pursue environmental education programs as both facilitator and provider" and includes two goals:

**Encourage environmental awareness** so that citizens will become active and involved stewards of natural areas.

**Educate citizens about the regional system** of greenspaces through coordinated programs of information, technical advice, interpretation and assistance.

The plan outlines a three-pronged focus for environmental education services and programs, including:

- Working with school districts and other education providers such as home schools,
- Funding education for students on greenspace sites, and
- Providing "at regionally significant sites, as funds become available, interpretive services and centers such as urban rangers, naturalists, volunteer tour guides, etc. to enhance understanding, protection and use of our urban natural areas."

The Metropolitan Greenspaces Master Plan also states that a coordinated sign system will be developed, as well as brochures, books and facilities that interpret the Regional Greenspaces System and its various sites.

The Regional Framework Plan, adopted in 1997, reinforces this commitment to provide environmental education, stewardship and recreational opportunities to the public. It states that Metro should work with community groups, schools and other public agencies to make these opportunities available on publicly owned natural resource lands.

## **Educational Philosophy**

As Metro Parks and Greenspaces educators, we strive to help people experience the environment, make observations, collect information and draw conclusions from what they find. We point to examples and facts to illustrate ecological connections and interdependence. In alignment with the State of Oregon's public education system, our program is based on the method of science inquiry.

We aim to inspire learners to discover nature for themselves. Attitudes toward nature are not based solely on facts, and people are not comprised solely of intellect. We want each program to provide opportunities to wonder at the beauty, diversity and order inherent in the natural world.

Recognizing that nature is the best teacher, our programs focus on outdoor experiences. We favor a multi-sensory, "hands-on", active and involved format. We strive to give learners tools they can use all of their lives to make their own discoveries about nature. Basic tools for learning about nature are awareness and observation. These are developed with sensory exercises. Our programs aim to enhance sensory development.

We know that attitudes and behaviors are largely learned by following role models. As education program leaders, we represent powerful role models. It is our duty to role model awareness, respect, and curiosity about nature.

We recognize that this is a multi-cultural world. We strive to eliminate bias from our programs and presentation styles. We recognize and accommodate developmental stages of youth and different learning styles of all learners. We teach thematically, but take advantage of "the learning moment". We think safety is a top priority, enthusiasm is contagious, and fun is basic.

We believe an enhanced attitude of stewardship and involvement will be the natural culmination of a learning process guided by the above principles.

*"Inchworm, inchworm, measuring the marigold,  
Did you ever stop to see how beautiful they are?"*

Hans Christian Anderson

# Goals of the Metro Parks and Greenspaces Education Program

## Provide quality environmental education services

- Provide programs throughout the Metro region that enhance a deep awareness, appreciation and understanding of the ecology, resources and values inherent in our regional parks and open spaces, and the natural systems upon which they depend.
- Provide tools for experiential learning from nature. Teach behaviors and skills that help program participants (park visitors, school groups, etc.) enhance their experience with wildlife and the natural environment.
- Reach a diverse audience. Provide educational opportunities to the region's residents.
- Communicate management goals. Communicate regional park management objectives and policies to park visitors. Communicate the connection between historic, present day and future land uses.

## Promote stewardship

- Provide educational experiences that inspire informed action. By stewardship we mean care of the land and its natural systems. Examples of informed actions are removal of invasive weeds that overcome natural ecosystems, restoration of native plants and natural waterways, and informed citizen involvement in decisions that influence the natural resources of the region.
- Build capacity. Provide advanced programs for citizens to continually increase their level of stewardship. Increase the number of ecologically knowledgeable citizens, and involve them in teaching other people.
- Minimize site impact. Provide information needed to insure appropriate, safe, minimum impact use of our parks and greenspaces.

*"In the end we will conserve only what we love,  
and we will love only what we understand,  
and we will understand only what we are taught."*

Baba Dioum, Senegalese conservationist



# Current Situation

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This section addresses the following questions from the perspective of our current situation:

- Who are the audiences of our current programs (detailed breakdown); what are their needs and characteristics? Do any of them present us with special opportunities to further the mission of the department?
- What programs do we currently offer?
- Given limited resources, what criteria do we currently use to decide which audiences to serve?

## Education Audiences

Through the Metro GreenScene, web site and other outreach in the media, we reach a large audience who may not participate directly in our programs, but are receiving some “education at a distance.” We believe that this kind of contact can and does foster increased levels of awareness and stewardship.

Another level of participation is represented by people who visit our parks and greenspaces and/or attend our education programs. It is helpful to look at this portion of the public in four separate groups:

1. On-site general public
2. Groups
3. Schools
4. Public program participants

These participant categories differ in fundamental ways (e.g. age, knowledge and awareness levels, etc.). They also differ in why they attend programs and when they are likely to attend programs. Discussion follows regarding the best methods to use to reach these participant groups.

In all of our programs we utilize best educational practices – responsiveness to diverse learning styles, instructional flexibility to respond to “the teachable moment”, and inclusion of core environmental values (e.g. respect, curiosity).

### 1. On-site general public

#### Who they are

This category includes every person who visits our parks. The composition of visitors varies considerably from one park location to another, and during different times of the year, week or day. The general public accesses the regional parks primarily for various forms of recreation as well as education.

### **How to reach them**

- interpretive signage that is well-placed and well-designed
- nature centers or interpretive centers
- brochures and fact sheets with interpretive messages
- special events that have a recreational focus and broad appeal
- individual short contacts by volunteer roving naturalists and both seasonal and permanent park staff

Demographic surveys, education staff interviews with rangers, site visits and trial programs on site are the best ways to assess and understand this group for interpretive planning purposes.

“Match the hatch” is a technique that is especially applicable to this audience. “Match the hatch” refers to attracting people with something they already like, such as entertainment or food, then integrating an educational message.

Metro GreenScene programs are marketed to a general audience but subscribers are self-selected and are likely to be people already predisposed to nature education rather than a true cross-section of the general public.

## **2. Groups**

### **Who they are**

This category includes groups from a variety of civic, religious and culturally-based organizations (e.g. senior groups, youth groups, Boy and Girl scouts, Campfire groups, summer program youth groups, etc.). Organized groups often encompass individuals who would not normally sign up for our public programs on their own, often due to lack of knowledge about the program or lack of transportation. We can, however, reach these individuals within the context of a group.

It is easier to provide a program for an organized group than a group of individuals from the general public. Unlike programs for the general public, the number of people attending a program in a group is predetermined. Groups also tend to attend a program rain or shine, because the outing agendas are pre-arranged. Finally, groups are often more homogenous in some way (age, interest or focus) than a cross-section of the general public, which can encompass a very wide range of ages and degrees of experience or ecological understanding. Because of this, it is often possible to utilize a volunteer (with less experience than a staff person) to deliver a program to an organized group rather than to the general public.

### **How to reach them**

- market to the “group” audience
- provide programs that meet the needs of particular groups; for example, programs that fulfill the requirements of a Scout merit badge
- link and partner with other provider agencies
- combine the educational component within a recreational experience

Metro GreenScene reaches some of this market segment, particularly groups that are actively seeking nature-based education activities. However, additional marketing tools (e.g. letters, flyers, program brochures and targeted advertising) should be used to reach other groups.

### **3. Schools – students and teachers**

#### **Who they are**

Student groups are diverse. They are an accurate representation of the region's population, including the very young to college age, minorities and disabled persons. Students are a unique "captive audience", because they are required to attend school. State curriculum goals mandate achievement of specific levels of understanding in the life sciences. State curriculum goals also require service learning via participation in community education projects.

Teachers (for the purposes of this categorization) represent a stable group for which capacity building or teacher training can be invested over time. Teachers are responsive to program services and represent a highly educated and accessible audience.

#### **How to Reach Them**

- demonstrate to teachers and school administrators that our programs already correlate with Oregon State curriculum benchmarks
- demonstrate to teachers and school administrators that they can satisfy district instructional requirements by participation in our programs
- utilize hands on science inquiry method (key to the State requirements)
- link to schools
- link to teacher training programs
- market to the school districts

School groups include populations currently underrepresented in our program attendance and therefore, schools offer an important opportunity for outreach to a more diverse audience. Additionally, because students are learning and not simply recreating, student groups offer a unique opportunity to meet the objective of building an ethic of stewardship of a regional system of parks, natural areas, trails and greenways. In addition, there is typically a significant return on the investment of developing relationships with teachers. By expanding teachers' skills in field studies, species identification, and habitat enhancement and monitoring, their capacity to teach environmental curriculums is extended to classrooms of students, year after year.

### **4. Public program participants**

#### **Who they are**

People who attend the public interpretive programs advertised in Greenscene already have some level of interest in nature education, are aware of our programs and have the transportation to get to the program. Individuals are often interested in pursuing a particular topic, such as birding or learning more about mushrooms. Families are interested in introducing their children to the outdoors and spending family time in nature. This group has discretionary time and income.

#### **How to reach them**

- Offer a great variety of interpretive programs.
- Maintain a reputation for very high quality programs and well informed, naturalist staff.
- Advertise programs with innovative, and attractive program descriptions.

## **Three Levels of Education**

Park visitors and program participants do not all have the same amount of time or interest to devote to their learning experience. This essential fact means that we must offer varying levels of education and interpretation to successfully convey messages to the majority of park visitors. To design and deliver a comprehensive parks education program, it is useful to keep in mind these three levels of programming.

### **Level one: Introductory**

Provides critical orientation to park and location of park features and facilities. Provides basic level of visitor introduction to key stories of the park or natural area. Also greatly enhances recreational experiences for visitors unable to participate in guided programs.

Examples: interpretive signage, self-guiding brochures or curricula.

### **Level two: Intermediate**

Provides greater opportunities for visitors who stay on site longer. Typically guided experiences led by trained naturalist or volunteers. Provides more thorough understanding of key stories for visitors and students as well as longer experiences (several hours to a day).

Example: most Metro GreenScene programs, group programs, school field trips, special events.

### **Level three: Immersion**

Provides in-depth opportunities for study and immersion into key stories. Typically includes small group or one-on-one instruction, usually occurring during a series of interactions in partnership with a trained naturalist. Often involves mentoring participants to act as teachers or leaders.

Examples: volunteer naturalist training, volunteer programs, community education projects, opportunities available at nature centers (such as a research library, taxonomic collection or herbarium) for in-depth study.

## **Current Programming**

Following is a listing and brief description of the types of programs Metro Parks and Greenspaces has provided to park visitors and residents of the region since 1985. Recommendations as to whether to continue, change, increase or decrease each type of program are addressed in the Future Vision section of this plan.

### **Metro GreenScene interpretive programs**

One hundred and twenty-five public interpretive programs were delivered by Metro Parks and Greenspaces education staff in FY 02/03. Perennial favorites include campfire programs at Oxbow Regional Park and programs designed for children and family groups, such as Twilight Tuesdays at Smith and Bybee Lakes and Breakfast with Birds of Prey on Sauvie Island.

### **Roving interpretive contact**

Since 1999, seasonal and permanent naturalist staff and trained volunteers have made thousands of informal interpretive contacts at crowded summer locations such as the Oxbow Regional Park boat ramp beach, the swim beach at Blue Lake Regional Park, the Glendoveer Fitness Trail and the Springwater Corridor near Beggars-tick Wildlife Refuge.

### **Organized group interpretive programs**

Our parks and natural areas are currently visited by a variety of civic, religious and culturally-based organizations. Education staff delivered sixty-eight programs to groups in FY 02/03.

### **School field trips (environmental education)**

Sixty-four classrooms participated in school field trips in FY 02/03, primarily at Oxbow Regional Park and Smith and Bybee Lakes Wildlife Area. Field trips have also occurred at other Metro sites such as Blue Lake Regional Park, Howell Territorial Park, Beggars-tick Wildlife Area. In addition, schools have requested them at other locations not managed by Metro.

### **Education volunteers/volunteer naturalists/ Nature University**

Since the beginning of the education program, several hundred people have served as education volunteer naturalists. The quantity and quality of our school field trips are possible, in large part, due to these volunteers. Volunteer naturalist training, now known as "Nature University," was created in 1995 by education staff as a series of 11 core training classes.

### **Off-site education programs and community events**

Staff occasionally delivers programs to organized groups in classrooms, on school campuses, or in community centers. These programs vary widely and the total is usually less than ten each year. Staff also participates in community events, information fairs and other special programs hosted by other agencies and local partners.

### **Special events**

The focus of Metro's special events is to include and engage other community agencies and partners and to showcase programs that are of strong educational value. Special events are designed to reach large audiences and provide easy access opportunities to visitors to learn about Metro, parks services and the environment. Naturalist staff and volunteers participate in Metro-hosted and community sponsored special events every year. The departments' signature event is Salmon Festival with up to 10,000 participants.

**Community partnership environmental education projects**

Community partnership education projects involve the same group of students over a long time period. The primary goal of the project is education, although the project can include restoration and/or monitoring. The primary way our department is involved in these partnerships is through the selection and administration of Greenspaces Grants. In addition, the Metro Parks and Greenspaces naturalist staff has averaged approximately one partnership education project in each of the last fifteen years.

**Community service projects**

Community service projects, usually facilitated by the volunteer program, can be long-term, but are typically short-term. The primary goal of the project is the accomplishment of the task at hand whether it be invasive species removal, tree planting or grounds maintenance. Education (including project guidance, tool use, land management techniques, etc.) may be included as part of the experience but takes up a minimal portion of the activity.

## **Current Criteria for Prioritizing Programs**

Frequently, shortages of staff and time make it necessary to choose who gets an environmental education program and who doesn't. "First come, first served" is our general policy, but when many requests come in at once, the following criteria are used to guide these decisions.

### **Does the program further the Metro Parks and Greenspaces mission?**

We consider how the program furthers the department's mission and our educational goals.

### **Does this opportunity leverage resources?**

We take advantage of opportunities to work with people who will pass on the content of the program by teaching it themselves. Working with teachers, especially in a training series that develops their field skills, ultimately reaches more people than working with students.

### **Does this expand our opportunity to reach a diverse audience?**

If there is an opportunity to reach audiences that we do not usually get a chance to interact with, we choose that over another program, thereby diversifying our audience.

### **What is the actual number of people served?**

If an "off-the-shelf" program will suffice and still provide a high quality experience, we choose a larger group over a smaller group.

### **Can we provide a referral?**

If we cannot serve the group, we try to help them find another environmental education provider in the region who can.

### **Does the program take place outside in a Metro park or greenspace location?**

Requests for outdoor programs are generally given priority over requests for indoor programs. We also prefer to bring people to our own properties when possible.

### **Locations in Clackamas and Washington Counties are currently given priority over locations in Multnomah County.**

As of this writing, Clackamas and Washington counties are underserved by our programs compared to Multnomah County. This criteria is in effect only until program delivery in all three counties served by Metro achieves a measure of equity.

# Future Vision and Recommendations

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## Future Vision

This section of the Education Plan outlines a future vision of education programs for Metro Parks and Greenspaces. This vision may not be realized for decades, and the detailed development of this vision is beyond the scope of this plan. The intent here, however, is to paint a picture in broad brushstrokes of what a mature, full-capacity park and greenspaces education program could look like. This section is written in present tense but from the point of view of an observer in a future setting. Recommendations to achieve this vision follow.

- Well-placed and relevant interpretive signage exists throughout our system, and on trails. Signage is not excessive, but rather just enough to give park users the information they need to more fully appreciate the site they are visiting. Signage is multilingual where appropriate and practical. Standards for signage design and construction are consistent throughout the regional system.
- Each Metro Parks and Greenspaces staff member – permanent and seasonal, in the office and in the field – understands that they play a role as an educator in their job, and has the training and tools they need in order to do this. Each one is personally familiar with members of the education staff and their areas of expertise, as they have met them in orientation and training sessions. Each one is familiar with and has access to a current Metro GreenScene publication or website. If a park visitor asks field staff a question about a plant or animal or some other natural aspect of the park, field guides and other resources are available for visitor reference.
- Staff persons guide Metro GreenScene interpretive programs year round at all major sites such as Cooper Mountain, Mt. Talbert, Oxbow Regional Park, Smith and Bybee Lakes Wildlife Area and the Wilsonville Tract. In summer, a small staff of seasonal interpreters conducts programs and makes roving contacts with park visitors at high-use parks. Advanced volunteer naturalists who have been part of the program long enough to develop an area of expertise also offer interpretive programs to the general public.
- Education volunteers and site stewards are trained and involved in long-term mentoring programs designed to encourage participants to continually improve their stewardship skills. Long-term volunteers are well known to staff and consider themselves an important part of the parks' education and management efforts. Former students of field trip programs return to become volunteer naturalists and seasonal staff.
- During the school year staff, trained volunteer naturalists, interns and students lead hundreds of classes of students on field trips that emphasize learning. Field trip programs operate at regional sites that have education facilities and adequate infrastructure (parking lot, restrooms, shelters) such as Oxbow Regional Park, Smith and Bybee Lakes Wildlife Area, Cooper Mountain and sites in Clackamas County.



- At other sites such as Beggars-tick Wildlife Area and Canemah Bluff, schools and informal educators are also involved and active. Via community partnerships with Metro Parks and Greenspaces, they use the sites for long-term community education projects that involve site restoration and monitoring, or programs in which older students lead younger students on site tours. Some of these projects and programs are coordinated and partially funded through the department's environmental education grant program.
- Nature centers are distributed equitably around the region in part due to the addition of two new centers at Metro sites. (See map Appendix B). An active cadre of volunteers takes a large role in the operation of these centers and the delivery of programs. The centers offer the general public a place to rest and interact with interpretive displays and staff. Small shops in each center have a variety of field guides and nature study aids for sale. The centers serve as a focal point for organizing partnerships in each watershed, and are busy in all seasons and on many evenings with programs and meetings. Teacher training sessions are held annually at the centers on in-service days.
- At Howell Territorial Park, interpretive programs and school field trips are offered cooperatively by Metro Parks and Greenspaces and the Oregon Historical Society. Interpretive trails guide seasonal visitors around the historic grounds and to a viewing blind at the wetlands.
- Communities and individuals who previously represented a small percentage of program participants (i.e. people of color, non-native English speakers, people with disabilities, etc.) are now a familiar and active presence in our programs.

## Recommendations at a glance

1. Increase the capacity of all Metro Parks and Greenspaces staff to be environmental educators.
2. Continue to expand and develop the volunteer naturalist program.
3. Continue using seasonal naturalists for summer roving naturalist program.
4. Market targeted groups and increase programs at newly acquired greenspaces.
5. Develop strategic partnerships to increase community education projects.
6. Involve volunteers and education program participants in planning, monitoring and inventory work.
7. Further explore potential partnerships and links with the Greenspaces Grant Program.
8. Participate in training staff of other organizations that operate large programs in Metro parks and greenspaces.
9. Develop and implement a system-wide signage program for all Metro parks and greenspaces.
10. Establish guidelines for interpretive/education sections of master plans.
11. Develop an interpretive inventory for Metro parks and greenspaces.
12. Increase staff for interpretive programming at Metro parks and greenspaces.
13. Increase support for school field trips at Metro parks and greenspaces, including naturalist staff and funding for busses and substitute teachers.
14. Round out the region's distribution of environmental education programming by developing new nature centers in underserved locations.
15. Develop, market and deliver programs that support teachers in the classroom.
16. Explore and develop outreach strategies to make Metro Parks and Greenspaces programs more accessible to underserved individuals and communities.

*"The best thing for being sad," replied Merlin, beginning to puff and blow, "is to learn something. That is the only thing that never fails."*

T.H. White, The Once and Future King

## **Recommendations**

Increased staffing levels will be needed to implement these recommendations. The staff could be AmeriCorps interns, Capstone students, college students, volunteers, seasonal naturalists, permanent naturalists, or most likely a combination thereof.

These recommendations are listed in priority order. Should resources become available to make progress on these recommendations in a different order, the priorities and timelines should change accordingly. For example, should a partnership with another agency be formed and volunteers, grant money or use of vans for transportation be offered, then current barriers to new program development could be removed. We should take advantage of opportunities as they arise.

### **1. Increase capacity of all Metro Parks and Greenspaces staff to be environmental educators.**

Each Metro Parks and Greenspaces staff member – permanent and seasonal, in the office and in the field – plays a role as an educator in their job. Educating the public contributes to helping our park visitors become well-informed about natural areas, land use issues and appropriate use of parks. Staff working in the field comes into daily contact with park visitors and, in doing so, they are in a unique position to provide education and resources to this diverse audience.

Every staff person should be familiar with the GreenScene publication and be able to provide a current copy upon request to a park visitor or direct them to our website. Staff should be familiar enough with the contents of GreenScene to be able to direct visitors to programs of interest. If a visitor asks them a question about a natural aspect of the park, they should be conscientious about giving out correct information. If they do not know the answer, they should have resources to refer the visitor to. They should be familiar with the education staff and know to whom to refer questions. Additionally, each park should have a small reference library of field guides.

To achieve this level of expertise amongst the field staff, the education team designed and presented an orientation, which is delivered to field staff in the early summer. This program was presented to both permanent and seasonal staff the first year. In subsequent years, new seasonal staff receives the basic orientation and returning staff receives enrichment training in natural history.

### **2. Continue to expand and develop the volunteer naturalist program.**

Recruit, train and retain more volunteers for longer periods of service. Nature University is a graduated training program for volunteer naturalists. Enhanced training and development of graduated training programs like Nature University helps volunteers to continually improve their skills and maintain their interest. By combining training for education volunteers with training site stewards and crew leaders when appropriate, resources are leveraged and programs are enhanced.

### **3. Continue using seasonal naturalists for summer roving naturalist program.**

Increase roving contact (i.e. planned casual contact by a naturalist with park visitors) at all popular park sites, especially in the summer. The roving naturalist program reaches new audiences that are often unfamiliar with the regional parks system, Metro Parks and Greenspaces and its programs. Visitors are introduced to our services and given information, which helps to build constituency and awareness.

### **4. Market to targeted groups and increase programs at newly acquired greenspaces.**

Increase offerings of large group programs to boost interpretive program attendance and enhance park visitation. Citizens interested in a new acquisition, who want access to a new site, or who want to learn more about the natural areas in the region should be encouraged to get a group of people together for a staff-guided site tour. Neighbors, often eager to get involved with the restoration and management of these new sites, can be targeted audiences for these tours. Tours can facilitate the public's involvement with sites and provide education to promote stewardship. This public outreach tactic is one of the few available for sites lacking visitor facilities.

### **5. Develop strategic partnerships to increase community education projects.**

Community partnership education projects can be an effective way to gather data about the natural resources found on our sites or to monitor ongoing restoration activities. The potential for community education projects to further current efforts to inventory and monitor newly acquired greenspaces is huge. Because of this, various staff members within Metro Parks and Greenspaces are becoming increasingly involved in community partnership education projects.

Interface with the natural resources team, volunteer coordinators and Greenspaces Grant Program to develop new community education projects. Because they are time intensive, carefully consider the staff time vs. project outcomes ratio when choosing community education projects and focus on project that support department priorities. Staff, contractors, volunteers and interns can provide technical assistance on data collection projects. Likewise, volunteers can lead programs. Bring our expertise teaching nature awareness techniques to all community education projects in order to provide higher-quality field experiences for participants.

### **6. Involve volunteers and education program participants in planning, monitoring and inventory work.**

Enhancing our coordination with community members who are interested in newly acquired open space sites supports all of our ongoing planning and land management efforts. Via community education projects, education and restoration grants, volunteer opportunities and interpretive programs, community members can become more familiar with the site and play a role in its stewardship. They can collect valuable inventory data needed for master planning, conduct plant, bird and animal monitoring projects and begin work to stabilize and restore the site. For example, the "Tracking Club" is currently conducting a year-long project to identify

animal movement patterns and map wildlife corridors at Cooper Mountain as part of our master planning effort for that site.

## **7. Further explore potential partnerships and links with the Greenspaces Grant Program.**

Environmental education grant partnerships and links should continue to be explored between our natural areas, education staff and volunteers. On occasion, the grant program may be a logical source of funding, supplemental funding or seed money for such projects. For example, transportation is often a limiting factor that prevents student involvement in high-quality field experiences or natural resource inventory, and the grant program may be able to help in these instances.

## **8. Participate in training staff of other organizations that operate large programs in Metro parks and greenspaces.**

Support and partner with existing day camps or other group programs in our sites. Agencies utilizing park areas are generally not outdoor educators. Offering to share services (and their participant numbers) leverages educational program resources, builds capacity, (through their staff enrichment training) and continues efforts to reach students and youth to provide sensory awareness training and observational skill building.

## **9. Develop and implement a system-wide signage program.**

Metro's parks and greenspaces need consistent, durable, graphically interesting and scientifically accurate interpretive signage. Good signage provides critical orientation to visitors, including location of park features and facilities. It also provides a basic level of visitor introduction to the historic, educational or ecological stories of the park or natural area. It can greatly enhance recreational experiences for visitors who do not participate in guided programs.

Creating and maintaining effective signage may be the single greatest public outreach challenge faced by any parks agency. Signs are often not well placed, or they are excessive or inadequate. Signage can be visually boring with poor graphics, have too many words, are an easy target for vandalism or be in disrepair.

A signage program that creates system-wide guidelines for signs includes a sign manual and the funding to implement a complete signage inventory (including interpretive signs). A manual should define the process by which signs are designated, how the need for a sign is established, and who participates in the design process. A sign manual would include sign design standards, an inventory of current signs and a budget for new signs, with an implementation schedule. A manual would also define consistent standards for location, installation and maintenance and gives examples of different types of signage.

## **10. Establish guidelines for interpretive/education sections of master plans.**

Metro Parks and Greenspaces creates master plans to formally establish the direction of the development, maintenance, management and programming for specific sites. An overriding goal of a master plan is to balance protection of a site's intrinsic natural and cultural resource values with the public's use and enjoyment of the site. Interpretive/education programs are a key component of this balance. How site interpretation is addressed in our master planning has been inconsistent. Establishing guidelines for interpretive/education sections of master plans can help remedy this inconsistency in the future. Master plans should include the cost of implementing signs that meet our system standards.

## **11. Develop an interpretive inventory for Metro parks and greenspaces.**

To date, four master plans (Oxbow Regional Park, Howell Territorial Park, the Ancient Forest Preserve and the Wilsonville Tract) have included environmental education and interpretive program elements. These plans were developed with specific sites in mind. Individual master plans, however, do not address how different sites in our own system or in the regional system relate to each other in an educational or interpretive context.

Metro Parks and Greenspaces should conduct an inventory of all the interpretive topics to be included in our own system. This inventory will ensure the development of a well-balanced and comprehensive interpretive program. The inventory should also examine potential audiences, resources, topics and stories of each site. The document would collect and summarize the education planning completed to-date through existing master plan processes. In addition, it would address sites that have yet to be master planned. Such a document would ultimately consider the regional system, including our partners' sites, and present an overall picture of the educational opportunities.

## **12. Increase staff for interpretive programming at Metro parks and greenspaces.**

Focus efforts to increase interpretive program delivery at sites acquired through the open spaces, parks and streams bond measure and sites that are located in Washington and Clackamas Counties such as Killin Wetlands, Canemah Bluff and Cooper Mountain. These programs help to build a constituency that will support the future growth, development and implementation of services.

## **13. Increase support for school field trips at Metro parks and greenspaces, including naturalist staff and funding for busses and substitute teachers.**

School field trips are highly effective both in use of resources and in meeting our mission and goals. Trips should be extended to additional areas. Teachers repeatedly report that their opportunities for field trips are limited by the lack of funding available to pay for busses and substitute teachers; therefore, community organizations and agencies should work together to establish a source of funding to provide these essential resources. As the program expands,

marketing information should include relevant curriculum content and learning benchmarks. Information could be presented to teachers via mailings, meetings and resource fairs.

#### **14. Round out the region's distribution of environmental education programming by developing new nature centers in underserved locations.**

Nature Centers help the region meet its environmental education goals by more fully linking citizens in year-round programs to important natural resources and by serving key populations. Nature Centers offer the public a place to rest and interact with interpretive displays, staff and volunteers. The centers serve as a focal point for organizing partnerships in each watershed, and may be busy in all seasons and on many evenings with programs and meetings. Nature centers serve as an organizing tool for developing a dedicated and talented cadre of volunteers within our natural area parks. Small areas or shops within these centers can provide a variety of field guides and nature study aids for general park visitors to peruse or to purchase.

Currently there are 5 nature centers operating within the Metro area including:

- Tryon Creek State Park's Nature Center (SW Portland)
- Audubon Society of Portland's Interpretive Center (NW Portland)
- Tualatin Hills Parks and Recreation's Nature Park Interpretive Center (Beaverton)
- Jackson Bottom Wetlands Education Center (Hillsboro)
- John Inskeep Environmental Learning Center (Oregon City)

Other centers are in the planning stage such as a visitor center at the Tualatin River National Wildlife Refuge (near Sherwood).

East Multnomah County and southeastern Clackamas County are not yet served by a nature center (see Map, Appendix B). Metro has sites in both of these areas that could fill these gaps in the system. The Oxbow Park Master Plan (1997) recommended that an environmental education facility, the Diack Nature Center, be developed at Oxbow, funded from private sector resources. In 2000, a feasibility study concluded there was sufficient support from business, schools, local governments and potential donors to complete a successful capital and endowment fundraising campaign. Through this endowment, grants, staffing and fundraising assistance from a "Friends of Oxbow Park" or some other partner, nature center activities could be sustained at this location. Metro's Clear Creek Canyon property has been identified as a potentially good location for a nature center due to the depth and breath of the natural resources found there. This location could also fill an important gap regionally due to its location in a fast-growing area where no other nature or interpretive centers are currently planned.

#### **15. Develop, market and deliver programs that support teachers in the classroom.**

Inform teachers about programs (field trips, community education projects, and community service projects) in a one-day training offered on teacher in-service days. The training should take place on one or more of our regional sites and include information about how programs meet CIM/CAM benchmarks and general education benchmarks.

In addition, develop and deliver in-classroom programs that prepare students for field trips. Nature kits full of field guides and maps of our regional park system can be loaned to schools as part of our school field trip program.

**16. Explore and develop outreach strategies to make Metro Parks and Greenspaces programs more accessible to underserved individuals and communities.**

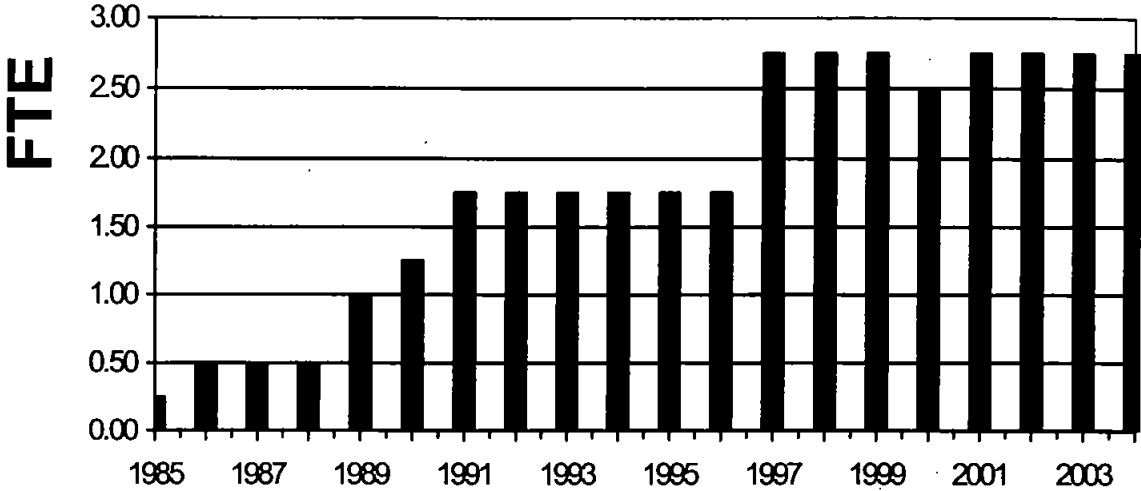
Public GreenScene interpretive program attendance is not particularly diverse. Outreach efforts to date are most likely to reach and attract a fairly homogenous group in terms of ethnicity, culture, economic and educational background, etc. At the same time, park visitor audiences are much more diverse than program audiences. This disparity suggests that access to park facilities is not necessarily a barrier to a diverse audience. The disparity also represents great opportunities for outreach for interpretive programs to reach new audiences.

With some guidance from the communities we wish to serve better, explore new ways of getting the word out about what the education program has to offer and addressing possible barriers (e.g. language issues, physical accessibility, etc.). We might also benefit a great deal from asking underserved individuals and communities to tell us what kinds of programs they want and need.



# Staffing Recommendations

The chart below shows how the education staff has grown during the last 15 years. Volunteer naturalists currently account for another .5 FTE (1,000 hours) as shown here.



Volunteers, AmeriCorps and other paid interns and seasonal staff can do much of the work of the educational program at low cost. But a core of full time staff (in both volunteer management and education) is needed to train, coordinate and manage this work force.

### Current Environmental Education Program Staffing Levels (FY 03-4)

Areas of responsibility	Volunteer FTE	Paid Staff FTE
Program supervisor/chief naturalist		0.50
Oxbow Regional Park naturalist with volunteer naturalist support	0.50	0.50
Smith & Bybee Lakes Wildlife Area naturalist with volunteer naturalist support	0.50	0.50
Open space naturalists		1.00
Summer seasonal naturalists		.25
<b>Total Current FTE</b>	<b>1.00</b>	<b>2.75</b>

### Recommended Environmental Education staffing for new sites

New natural areas open to the public equipped with (at a minimum) restrooms, parking, bus turn around and shelter provide the necessary facilities to develop full service environmental education programming. This includes GreenScene interpretive programs, school field trips, community education projects, day camps or nature camps and programs for groups.

Areas of responsibility	Volunteer FTE	Paid Staff FTE
Open space naturalist (for two sites) with volunteer naturalist support	0.25	1.00
Open space naturalist (for two sites) with volunteer naturalist support	0.25	1.00
<b>Total Proposed FTE</b>	<b>0.50</b>	<b>2.00</b>

## Appendix A: A Brief History of the Education Program

In May of 1985 the Education Program began at Oxbow County Park with one 20-hour per week seasonal naturalist position. The program focus was delivering guided programs to audiences at Oxbow Regional Park. These initial offerings included campfire programs, streamside talks focusing on wild Chinook salmon, and walks through the ancient forest. The seasonal naturalist coordinated the second "Salmon Appreciation Day", a 1985 event that evolved into the present day Salmon Festival. Two kiosks and the campfire amphitheater existed at this time.

The program was well received by park visitors, and grew rapidly. While 2,459 people attended programs in 1985, by July of 1988, 2,489 people attended programs in a single month. A list of key events in the program's development follows.

1985	3-season interpretive program for Oxbow Regional Park created. Fall school field trips begin.
1986	Spring field trips for schools begin. Salmon Appreciation Day attendance grows from 200 to 500 people. Education programs begin using volunteers.
1987	Salmon Appreciation Festival begins, with attendance of almost 1,700.
1988	A coordinator is hired for Salmon Appreciation Festival, attendance climbs to 3,178. Countywide winter interpretive program created.
1989	County naturalist position becomes permanent.
1990	Naturalist office at Oxbow constructed & seasonal naturalist hired (.5 FTE).
1991	Wetland interpretive programs begin. Boat ramp kiosk constructed.
1993	First community education project, Blue Lake wetland restoration begins. Beggars-tick Wildlife Refuge Restoration completed, offering environmental education opportunities.
1994	Multnomah County Parks merges with Metro. Merged calendar, the GreenScene, produced. Regional park naturalist position becomes education program coordinator.
1995	Open spaces bond measure passes. Volunteer naturalist training, an 11 session , year long training for volunteer educators, is designed and implemented by the Education Coordinator. Part time naturalist hired for Smith and Bybee Lakes Wildlife Area. Smith and Bybee Lakes Wildlife Area aerial photo community education project begins at George Middle School.. Reynolds High School students lead school field trips at Oxbow.
1996	Ancient Forest Preserve Master plan developed, with first planned environmental education/interpretation elements. Oxbow seasonal naturalist position becomes a permanent full time position. Smith and Bybee Lakes Wildlife Area naturalist position consolidated with Education Program. Interpretation included in the master plan for Howell Territorial Park.
1998	Planning and Capital Development Division becomes the Planning and Education Division. Volunteer coordinator hired and begins to work with existing volunteer naturalist training.
1999	Seasonal naturalist hired (.25).
2002	Volunteer naturalist training renamed "Nature University," and returns to original 11-session version.