

Metro Greenspaces  
Environmental Education Grant  
February 15, 1993

OUR BACKYARD AND BEYOND  
An Exploration of the Camassia Watershed  
Area



*Camassia quamash*

Sunset Primary School  
City of West Linn  
Williamette Falls T.V. Studios

# Metropolitan Greenspaces Education Grant Application Summary Sheet

28

This cover sheet, along with a proposal and the other items described in the grant application packet, should be sent to: Metropolitan Greenspaces Program, METRO, 2000 S.W. First Ave., Portland, Oregon 97201-5398.

**Organization** Sunset Primary School **Founding Date** 1891  
**Address** 2351 Oxford Street  
**City, State, Zip** West Linn, Oregon 97068

**Project Contact Person** Thayne Balzer/Margaret Allen/Willy Snook **Phone** 656-7244  
**Chief Executive Officer** Dealous Cox **Phone** 638-9869  
**Chairperson of the Board** Nancy Stewart **Phone** 638-9869

**Mission of Organization** It is the mission of the entire staff to challenge all children to reach their maximum intellectual, physical and personal potential. It is our goal that children become productive members of the community and understand their role in the world.

**Objectives and description of project:** Our project will create a partnership between Sunset School, the City of West Linn, Willamette Falls T.V. Studio and other neighborhood support groups. Students from Sunset School will serve as leaders to organize 10 greenspace projects that will be implemented by the community. Each project will produce a video product highlighting the project and its environmental value.

**Total project cost** \$19,372.50 **Amount requested from Metro** \$7610.00

**Specifically, how will Metropolitan Greenspaces funds be used:** Funds will be used to provide transportation of students to natural areas neighboring our school, train staff (environmentally), procure materials and small equipment for projects.

**Amount and sources of matching contributions committed to project to date:** Contributions committed, but not expended, to this project are \$11,762.50. Sources of matching contributions have been committed by West Linn-Wilsonville School District, City of West Linn and Willamette Falls T.V. Studio. Additionally, neighborhood support groups have committed volunteer time to the completion of this project.

**Other funding sources from which support is requested** None

**Project period:** 10 (number of months) **beginning** March 1, 1993

**Why is the project important?** Participation in this project will create a public awareness for the value of greenspaces to the environmental health of our community.

**Who and how many will be served?** Specifically, we will target the 515 students and their families of Sunset Primary School, the 6000 property owners in the City of West Linn, and the general 16,000 population in the City of West Linn.

NORMA PAULUS  
State Superintendent  
of Public Instruction



FEB 20 1992

OREGON DEPARTMENT OF EDUCATION  
700 Pringle Parkway SE, Salem, Oregon 97310-0290 • (503) 378-3569 • Fax (503) 373-7968

February 14, 1992

Mr. Dealous L. Cox  
Superintendent  
Clackamas County School District No. 3JT  
Administration Building  
West Linn, Oregon 97068

Dear Dea:

This is to certify that Clackamas County School District No. 3J, (West Linn-Wilsonville Schools) is a tax exempt organization formed under Chapter 334, Oregon Revised Statutes.

Cordially,

Bob Burns  
Deputy Superintendent  
for Education Programs

BB/rjs



INTERNAL REVENUE SERVICE  
EP/EO

Internal Revenue Service  
EP/EO Disclosure Desk  
P.O. Box 2350 Los Angeles, CA 90053

CLACKAMAS COUNTY SCHOOL  
DISTRICT 3JT  
P O BOX 100  
WEST LINN, OR 97068

Person to Contact:  
F. Mirafior or L. Barragan  
Telephone Number:  
(213)894-2336  
Refer Reply to:  
92-133  
Date:  
Feb 28, 1992

RE: 93-6000234  
CLACKAMAS COUNTY SCHOOL  
DISTRICT 3JT

Gentlemen:

This is in response to your request for a determination letter of the above-named organization.

The Internal Revenue Code makes no provision for the issuance of exemption letters to instrumentalities of a state or municipal government since Section 115 of the Code specifically excludes their income from the definition of gross income.

Because you are an integral part of the government agency, an exemption letter is not necessary and evidently was not issued.

If you are in need of further assistance, please feel free to contact me at the above address.

Sincerely,



Disclosure Assistant



***1. What is the description of the project, its goals and intended results? Why is it important to undertake this effort at this time?***

Our project, **OUR BACKYARD AND BEYOND: An Exploration of the Camassia (Kah-may-see-ah) Watershed Area**, will create a partnership between Sunset School, the City of West Linn, neighborhood support groups and Williamette Falls T.V. Studios. Fifth grade students from Sunset School will serve as leaders for this project. Ten environmental mini-projects, planned and organized by these leadership teams, will focus on the impact of development (people and what they do in their backyard) on natural resource areas (greenspaces) such as the Camassia Natural Area. The projects will further identify the benefits that natural resource areas provide to the overall environmental health of West Linn. Volunteers from throughout the city will be recruited to serve as a work force to complete these mini-projects. As an end product, we will produce a video that highlights the goal of this project while serving as an example of students and community volunteers working together to preserve natural areas. This video product, along with the greater awareness developed by both students and volunteers, will serve as a base to expand our environmental understanding. **We will learn what we can do (in our own backyard and beyond) to protect these natural resource areas.**

*What is the significance of the project?*

*What is the need for the project?*

*How do the proposed activities meet this need?*

West Linn is an at risk environment. The city of West Linn is a rapidly growing area - from 1984 to 1992 between 200 and 250 dwellings were built each year. Construction within our area continues at an all time high. It is projected that 1000 multi-family and 1500 single family dwellings will be built over the next 10 years. Greenspaces already available or naturally occurring along future building sites are in danger! Although a comprehensive plan for city development exists to balance the competing needs of man-made and natural systems, comments of West Linn property owners demonstrate the lack of support for this plan as well as the lack of basic knowledge about natural areas (Appendix #C). There is an overriding need for the citizens of West Linn and the students of Sunset Primary School, to become more informed about the impact of greenspaces on the overall quality of life in West Linn.

Environmental training of students and staff will begin the process of this learning, while the leadership mini-projects will provide opportunities for students and volunteers to expand their learning through hands-on participation. Their participation will create "real meaning" and understanding. It is this "real meaning" that will connect them to the problem, making them active, well informed stewards of the community's natural resources. "Acting Locally," will help students and volunteers to "Think Globally."

*Who is the targeted audience?*

Our project will target four audiences: Sunset School fifth grade students (101), Sunset School student population (520), the property owners of West Linn (6,000) and the greater West Linn Community population (16,000).



*What is the project's relationship to urban natural areas and the Metropolitan Greenspaces program?*

We will begin with a study in our own school yard, expanding that study to include students' own backyards and the Camassia Watershed. Sunset is a primary school located in West Linn, Oregon. A portion of the **school's property is located at the upstream end of a 50 acre watershed tributary to Camassia Natural Area.** This watershed is part of a larger watershed tributary to the Willamette River. Natural and man-made areas within these watersheds will serve as mini-project locations. Grant funds will be expended to provide transportation from Sunset School to these locations within the Camassia Watershed Area - a city park, older developed areas, recently developed areas, areas of proposed development, the I-205 freeway, the Tualatin River, the Willamette River, an undeveloped natural area called Wilderness Park, and the Camassia Natural Area. This wealth of both man-made and natural areas will provide perfect locations for students to compare the effects of greenspaces on environmental health.

Additionally, a small portion of our school property has been set aside and will serve as a ecological replica of Wilderness Park, an adjoining undeveloped natural wildlife area. This small, convenient location will serve as an inhouse laboratory, a mini wilderness, for the environmental training of students and staff of our school at the beginning of this project. The students of Sunset School are currently completing an ecological survey of this space (Appendix B).

*Describe the public - private partnership and why the committed cooperating partners are the appropriate ones to carry out this project?*

Our project, **OUR BACKYARD AND BEYOND: An Exploration of the Camassia Watershed Area**, will create a **partnership between Sunset School, the City of West Linn, neighborhood support groups and Willamette Falls T.V. Studios.**

This years fourth grade class will be trained during the Spring of 1993 by professional volunteers on environmentally related issues. These students will become the project leadership teams, coordinating each project's activities during their fifth grade year at Sunset School. Working in groups of approximately ten to fifteen students, they will develop 10 environmental mini-projects that focus on various natural sites in the Camassia Watershed (see specific list of projects in timeline description). For instance, students might monitor, observe and record data from numerous sampling points - important base-line information for the City of West Linn. They will be facilitated by school staff and community volunteers. Students will become the environmental experts - training volunteers, organizing events, advertising, coordinating events, and practicing the leadership skills they will need in the future. Their participation in this project will increase their leadership skills, while making them better informed future community citizens.

Individuals in the Sunset community will serve as 1) professional volunteers for training staff and students, 2) a work force along with students to complete ten

greenspaces mini-projects, and 3) the "actors" in our video productions. This involvement will increase their basic understanding of how natural areas protect environmental health. This understanding is critical for active citizens to make well informed decisions about the future of natural areas in their community.

Other private-public partnerships which will result from our project will be:

**ORGANIZATION:**

**SUPPORT FOR PROJECT COMPLETION:**  
(Appendix #A)

City of West Linn  
(John Hession)

- Professional trainers
- Commitment to the project focus
- Source for survey results - preach and post
- Student newsboys - Sent in utility bills to property owners

West Linn High School  
(Jerry Kuykendall)  
Athey Creek Middle School  
(Jim Hartford's)

- Mentors from West Linn High School  
Independent Research Class in  
"Environmental Studies"
- Use of Satellite Research Center
- Use of environmental software

ELNA  
(Robert C. Bassett)

- Professional trainers
- Commitment to the project focus
- Source for networking with other  
environmental projects being  
conducted throughout the  
United States

Parent Teacher Support Group  
(Cindy Piazza, Cindy Foster)

- Additional funding of supplies or equipment
- Support to students
- Volunteers in Mini-Projects
- Professional Trainers

Williamette Falls T.V. Studios  
(John Moss, David Ling)

- Free training of students and staff
- Free use of cameras and editing equipment
- Channel 11 and 21 to broadcast video  
product to the community

***2. How will the goals be accomplished? What methods and criteria will be used for measuring the project's effectiveness and success?***

***Provide milestones and objectives that are measurable.***

Both short term and long term data will be collected during the tenure of this grant. Long term objectives and/or collections of data will require continued monitoring after the completion of this project. Since participation by the community in this project will serve as the key to opening the community doors to understanding, it will serve as a measure of both short and long term objectives.



Specific quantifiable measures will include:

- number of project participants and volunteers (parent),
- numbers and types of audiences that view student video products,
- numbers participating in training session - including a pre and post evaluation survey (staff and students),
- identification of watershed impact - sampling points within the watershed will be monitored once per week during the course of the project and following the completion of the project,
- feedback, from surveys given out with information packets after video broadcast,
- number of environmental explorations by students,
- number of requests by organizations to view student video products (civic groups, clubs, etc.),
- number and quality of comments received by the City of West Linn from comment cards sent in utility bills.

*How does this project relate to the mission and goals of the applicant's organization.*

The goal of Sunset Primary School is helping children become productive members of the community and understanding their role in it. Awareness of the environmental health of their surrounding community, as well as the world, is an integral part of this mission.

*Describe the significance of this project to the organization.*

OUR BACKYARD AND BEYOND will create partnerships that facilitate real connections to the community and the City of West Linn. Through their active involvement in real projects students will practice what they have previously only been able to explore and research in books - developing better research tools, more sophisticated presentations and refined leadership skills.

*What is its experience as an environmental education provider?*

Our experience as an environmental education provider has been classroom oriented through research studies (i.e. rainforest projects), community service projects (i.e. street litter cleanup), and a school-wide recycling program. Staff have actively participated with ELNA (Educators for Living in a Nonviolent Age). These activities have served to highlight the goal of this project - providing more effective hands-on learning experiences that develop environmental understanding for our students, staff and volunteers.

**3. Are there any long-term outgrowths or community impacts that might come from successful completion of this project?**

***How can other students, teachers, and other members of the general public be involved and learn from this project?***

Participation in student-led, hands-on mini-projects will include volunteers from our immediate neighborhood and community groups. Volunteers will serve as 1) "actors" in student created videos, 2) professional trainers as their expertise allows, and 3)



working partners with students. For the most part, these volunteers are people who appreciate and find natural areas attractive, but have little basic understanding of how they function. Their exploration and hands-on work will change their understanding of their role in the environment, people working together to preserve natural areas. Their participation and observation will create "real meaning" - meaning that will be translated into well informed decisions. They will be connected to the environment first in their own backyard, then in the Camassia Watershed Area and the West Linn Community. They will "act locally first, to stimulate global thinking later"!

At a minimal level, the staff involved in mini-projects will bring a greater awareness of the value of natural areas to future students and projects. The fifth grade students of Sunset School will take a greater awareness of the concerns for environmental related issues to middle school and high school. These two academic levels have already begun environmental study projects, and are anxious for students to come to these projects with broader backgrounds and increased motivation for learning. They have expressed a willingness to help Sunset School train and mentor our student leadership teams, staff and volunteers (Appendix #D ).

*How might public awareness of Greenspaces-related issues be developed from this project (for example, from knowledge gained about resources at a particular site)?*

The public will change their understandings about the value of greenspaces to the overall health of their community through hands-on participation, knowledge gained, survey results, base-line information - collected from sampling locations, observations of environmental impacts, and broadcast of video productions.

*Since the project is being built as a cooperative effort, can sustained public participation carry on some aspect of the project begun in this project?*

After the completion of this project we will **continue to learn in our own backyard expanding our understandings beyond these boundaries**. As request from community groups arise, we will continue to make completed video products available. Further data collection and analysis (from surveys, comments, and sampling points) will be ongoing by next years leadership teams with the City of West Linn. This will serve as long term collection points from season to season and year to year, providing information that will create a long term partnership with the City of West Linn - especially the surface water management program.

Once trained with video and editing equipment, staff will sustain the partnership with Willamette Falls T.V. Studio. Their future use of their free equipment and studio time to complete projects will demand a continued relationship with this organization.

In the spring of 1994 we will expand the development of Sunset School's environmental learning lab. The existence of this lab, along with materials or equipment purchased with grant funds, will expedite the training of other students in future years at Sunset School. Future students and new staff will need to develop these environmental understandings, making continued connections with professional trainers, ELNA, and the citizens of West Linn a necessity.

# PROJECT TIMELINE

OUR BACKYARD AND BEYOND  
An Exploration of the Camassia Watershed Area

Fall, 1992	Survey West Linn Community (This portion of our project is completed.)
March 1, 1993	Plan for project implementation  Set-up environmental lab on school site with support funds from PTSO and City of West Linn
April - June 15	Pre-Assessment /Environmental Awareness Environmental Awareness Training - Fourth Grade Students and John Hession, City of West Linn Surface Water Program Manager Sunset School Environmental Lab Video/Editing Training Fourth Grade Students, staff, and volunteers John Moss and David Ling Williamette Falls T.V. Studios
Summer, 1993	Planning and scheduling mini-projects with staff facilitators Environmental Awareness Training - Staff and Volunteers Video/Editing Training - Staff
Sept. 1 -Oct. 15	Leadership Training Fifth Grade Students and Fifth Grade Teachers Pre-Assessment /Leadership Skills
Oct. - Jan. 10	Greenspaces Mini-Project Implementation (see following page for mini-project specifics)
January 10	Post Assessment /Leadership Skills Post Assessment /Environmental Awareness Survey - City of West Linn



## **MINI-PROJECT SPECIFIC TASKS FORMAT**

### **Fifth Grade Leadership Projects**

OUR BACKYARD AND BEYOND:  
An Exploration of the Camassia Watershed Area

- Review leadership skills and administer pre evaluation
- Explore environmental focus - creating motivation for the project  
"Find Out About the Problem"
- Plan project specifics - event and timeline, materials needed,  
and number of volunteers, etc.
- Implement the project
  - write letters
  - advertise
  - prepare materials
  - organize, train, and evaluate volunteers  
about environmental concerns
- Complete mini- projects
- Videotape project in process - edit tape, add audio sequences, etc.  
with executive producer
- Presentation of video projects
  - other classes
  - other schools
  - neighborhood organizations
  - Williamette Falls T. V. Studio
  - city organizations
  - school board
  - on Channel 21 and 11
- Administer post-evaluations - environmental awareness and  
leadership skills

## **MINI-PROJECTS**

### **Greenspaces Mini-Project/Location/Facilitators:**

OUR BACKYARD AND BEYOND  
An Exploration of the Camassia Watershed Area

Greenspaces Exploration and Survey:	Wilderness Park Sue Fulton/Volunteer
Stream Clean-up:	Willamette River Greenway Thayne Balzer/Principal Margaret Allen/Instructional Coordinator
Environmental Newsletter:	Camassia Watershed Area City of West Linn Publication Kerry Picard/Fifth Grade Teacher
Environmental School Store:	Camassia Watershed Area Janet Thrall/Volunteer
Greenspaces Information Packets:	Camassia Watershed Area Margaret Fasano/Media Specialist (distributed with video broadcasts)
Sunset Environmental Student Lab:	Sunset School Willy Snook/Fifth Grade Teacher Bob Fulton/Volunteer
School Environmental Awareness:	Sunset Students Own Backyards Natural Landscaping/Tree Assembly Stephanie Buzbee/Fifth Grade Teacher
Greenspaces and Community Arts:	Natural Areas in Camassia Watershed Information signs Trisha and Tom Hassler/ Volunteers
Greenspaces A Public Interest:	Water Survey of Camassia Watershed David Turnoy/Fifth Grade Teacher
Environment A Social Responsibility:	Survey of Developed Neighborhoods Christina Fowler/Counselor

# QUALIFICATION OF KEY STAFF AND/OR VOLUNTEERS

OUR BACKYARD AND BEYOND  
An Exploration of the Camassia Watershed Area

<b>Names:</b>	<b>Role (level of commitment):</b>	<b>Qualifications:</b>
<b>John Hession</b>	<b>*GRANT PARTNER</b> Coordinate city with project activities Professional Trainer	Surface Water Program Manager - City of West Linn
<b>John Moss</b> <b>David Ling</b>	<b>*GRANT PARTNERS</b> Coordinate with Executive Producer Coordinate studio with Project Activities Organize video/editing training for students and staff Provide studio time Air student video productions on Channel 11 and 21 Provide camcorders	Board of Directors Manager Williamette Falls T.V. Studio
<b>Thayne Balzer</b> <b>Margaret Allen</b>	<b>*GRANT PARTNERS</b> Coordinate school with community support groups Coordinate school and studio activities Coordinate school and city activities Coordinate school with community support groups	Principal Instructional Coordinator Sunset Primary School
<b>Willy Snook</b>	<b>*GRANT PARTNER</b> Coordinate school activities with fourth and fifth grade staff Coordinate school activities with Parent Support Group (PTSO)	Fifth Grade Teacher Sunset Primary School ELNA Chairman, West Linn- Wilsonville Schools
<b>Stephanie Buzbee</b> <b>Linda Blaufus</b> <b>Margaret Fasano</b> <b>Christina Fowler</b> <b>Sue Fulton</b> <b>Bob Fulton</b> <b>Trisha Hassler</b> <b>Connie Holz</b> <b>Gene Kraitier</b> <b>Kerry Picard</b> <b>Janet Thrall</b> <b>David Turnoy</b>	Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator Greenspaces Mini-Project Facilitator	Fifth Grade Teacher Fourth Grade Teacher Media Specialist Counselor Parent Parent Parent Fourth GradeTeacher Fourth GradeTeacher Fifth Grade Teacher Parent Fifth Grade Teacher



OUR BACKYARD AND BEYOND  
An Exploration of the Camassia Watershed Area  
**Metropolitan Greenspaces Education Grant Application**  
**Project Budget**

<u>Category</u>	<u>Request</u>	<u>Match</u>	<u>Total</u>
<b>a) Personnel</b>			\$7400.00
• 1 day planning-\$160/day/ 8 staff	\$1280		
• 1 day environmental training-\$160/day /8 staff	\$1280		
• <i>Environmental Trainer</i>		\$400	
• 1/2 day video training-\$160/day/8 staff	\$640		
• <i>Video Training Class Registration</i>		\$800	
• <i>Instruction Coordinator - 1/8 time</i>		\$3000	
<b>b) Materials and Supplies</b>			\$3100.00
• Teacher Resource Materials	\$500	\$500	
• Environmental Trade Books	\$500	\$500	
• Miscellaneous Supplies - plantings, tapes, rocks, small equipment	\$500	\$500	
• <i>Video Tapes - Willamette Falls T.V. Studio</i> (\$5/tape/20)		\$100	
<b>c) Rental Fees</b>			\$1500.00
• <i>Willamette Falls T.V. Studio Rental</i>		\$1,000	
• <i>Camcorder Rental (2cameras/\$25/10 mini-projects)</i>		\$500	
<b>d) Professional Services</b>			\$2250.00
• <i>John Hession - Environmental Consultant</i> (\$50/hour/30 hours)		\$1500	
• Executive Producer - Video Productions	\$ 750		
<b>e) Volunteer Labor Hours - 550 hours @ \$4.75</b>			\$2612.50
• <i>Greenspaces Mini-Project Volunteers</i> (10 volunteers/4 hours/10 mini-projects@ \$4.75)		\$1900	
• <i>(Professional volunteers/2hours/mini-project @ \$4.75)</i>		\$95	
• <i>(Professional volunteer/10 hours/4 classes @ \$4.75)</i>		\$190	
• <i>(Videotraining - 10 volunteers/4 hours @ \$4.75)</i>		\$190	
• <i>(Video Editing - 10 volunteers/5 hours @ \$4.75)</i>		\$237.50	
<b>f) Indirect Costs/Overhead</b> (not grant eligible)			
• <i>Mailing newsletters and printing fees</i> (City of West Linn)		\$350	\$350.00
<b>g) Other/Transportation - \$15/hour/144 hours</b>			\$2160.00
• 6 - 1 hour environmental site visits/4 classes	\$360		
• 3 - 2 hour environmental site visits/10 projects	\$900		
• 2 - 2 hour studio visits/10 projects - editing	\$600		
• 1 - 2 hour resource visit/10 projects - high school	\$300		
<b>TOTAL FUNDS</b>	<b>\$7610</b>	<b>\$11,762.50</b>	<b>\$19372.5</b>

**OUR BACKYARD AND BEYOND**  
**An Exploration of the Camassia Watershed Area**

**APPENDIX A**  
**Letters of Support**

2351 Oxford Street • West Linn, Oregon 97068

# Sunset School

Kindergarten - Grade 5

Telephone (503) 656-7244

Thayne Balzer, Principal  
Margaret Allen, Instructional Coordinator  
Christina Fowler, Counselor

Feb. 3, 1993

## To Whom It May Concern:

We would like to endorse Sunset School's application for the environmental studies grant. We firmly believe this project would bring lasting benefits to our students and our community.

Currently, Sunset School fifth graders are involved in a year-long leadership program. This inclusive model engages *all* students in leadership activities and helps them develop valuable life skills. Additionally, the program networks community members, teachers, parent volunteers, administrators, and students into a strong team. This approach helps kids to see the inner-connectedness of a complete community.

Projects that make learning come alive and that are connected to real-world experiences are often the most powerful for students, no matter their age. This particular project consistently involves students in hands-on activities and learning, something to which the Sunset Staff is deeply committed.

The impact of greenspaces on the health of a community is vast. It is our hope to instill in young people an understanding and a respect for these valuable areas. Through this insight, our community will be healthier as well.

It is with the strongest conviction that we endorse Sunset School's application for the environmental studies grant.

Sincerely,

*Margaret Allen*  
Margaret Allen Inst. Coord.  
*Willy Snook*  
Willy Snook Tchr. Gr. 5  
*David Turnoy*  
David Turnoy Tchr. Gr. 5  
*Kerry Picard*  
Kerry Picard Tchr. Gr. 4/5  
*Gene Kraiter*  
Gene Kraiter Tchr. Gr. 4

*Thayne Balzer*  
Thayne Balzer Principal  
*Stephanie A. Buzbee*  
Stephanie Buzbee Tchr. Gr. 5  
*Connie Holz*  
Connie Holz Tchr. Gr. 4  
*Linda Blaufus*  
Linda Blaufus Tchr. Gr. 4



2351 Oxford Street · West Linn, Oregon 97068

# Sunset School

Kindergarten - Grade 5

Telephone (503) 656-7244

Thayne Balzer, Principal

Margaret Allen, Instructional Coordinator

Christina Fowler, Counselor

Feb. 8, 1993

## To Whom it May Concern:

The Sunset School Parent Teacher Student Organization would like to support our school's application for the environmental studies grant. Sunset School has a rich tradition of community involvement, and we believe there would be wonderful opportunities for children and parents to grow by participating in this exciting project.

Our community is growing rapidly. What were once pastoral settings are fast becoming housing developments. More than ever, we need to be aware of the value of our existing greenspaces and the significant role they serve in our community's health. By educating our students and parents, we are confident that informed decision making about greenspaces, as well as a heightened appreciation of their value, will help shape a healthy future for our community.

Thank you for your consideration.

Sincerely,

*Cindy Piazza*  
Cindy Piazza, P.T.S.O. President

*Cindy Foster*  
Cindy Foster, P.T.S.O. Secretary

*Engineering*

February 11, 1993

Mrs. Margaret Allen  
Instructional Coordinator  
Sunset School  
2351 Oxford Street  
West Linn, Oregon 97068

RE: "THE CAMASSIA WATERSHED"  
Our Backyard and Beyond  
An Application for a METRO Greenspaces Educational Grant

Dear Mrs. Allen:

Having worked with the Sunset School fifth grade leadership program in the past, I look forward to continuing and expanding the relationship on this worthwhile project. This project integrates very well with other public education efforts in the West Linn Surface Water Management program. The services and resources that I will provide to the project include:

- \* Professional Trainer
- \* Technical Advisor
- \* City Mapping
- \* Sampling Locations
- \* Surface Water Management Program Newsletter

Again I am very excited about working with the young people of Sunset School. I feel that this project will benefit the students, teachers, parents, community groups, community leaders and the citizens of West Linn. It will also provide the students with a better understanding of their impacts on the environment that they will bring with them to middle school and beyond.

Sincerely,

John M. Hession, P.E.  
Storm Water Specialist





# OREGON EDUCATORS FOR SOCIAL RESPONSIBILITY

PORTLAND AREA • 921 SW Morrison • Suite 509 • Portland, Oregon 97205 • (503) 228-3900

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## ADVISORY BOARD

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Lewis and Clark College

Robert C. Bassett  
ELNA Project Coordinator  
Educators For Social Responsibility  
921 S.W. Morrison, Suite 509  
Portland, OR 97205

**Re: Sunset Elementary School Environmental Education Program**

## To Whom It May Concern:

The ELNA Project of Educators for Social Responsibility enthusiastically endorses Sunset Elementary School's initiative to develop more environmental awareness through its programs for the school community. We would be happy to provide technical assistance and support to increase public awareness of important environmental concerns.

We look forward to collaborating on the Sunset Elementary School environmental awareness program.

Sincerely,

Robert C. Bassett

ELNA Project Coordinator

James A. Hartmann  
Science Teacher,  
West Linn School District  
West Linn, OR 97068

February 10, 1993

Metro Greenspaces  
Environmental Education Grant

Dear People of Metro Greenspaces Program:

I am writing to express my enthusiastic support of Sunset Primary School's "Our Backyard and Beyond" environmental education grant application. As an active member of the region's environmental education community, I applaud this effort to bring students into direct contact with nature. I believe that as students become directly involved in the processes of environmental science, they also develop a sense of appreciation and wonder for the environment that they are studying. This will be enhanced as the students continue their environmental education at the middle and high school levels. I am also pleased with the grant proposal's emphasis on using the funding for staff development, for only when teachers feel empowered to do so will they take their students into the field to study the environment. I believe this proposal, if approved, could pave the way for West Linn students to develop a true sense of stewardship for the natural environment with which we are so richly blessed, and I believe further that only such stewardship will preserve this environment. Therefore, I am wholeheartedly endorsing this effort.

Sincerely,



James A. Hartmann

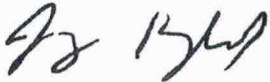


January 28, 1993

To whom it may concern:

The students in the Independent Research Class at West Linn High School are committed to helping the students at Sunset Elementary in any way possible. We believe in identifying the environmental needs of the community of West Linn. We feel that many of the research projects being conducted within the West Linn School District will help educate our community and lead to solutions in the future.

Sincerely,



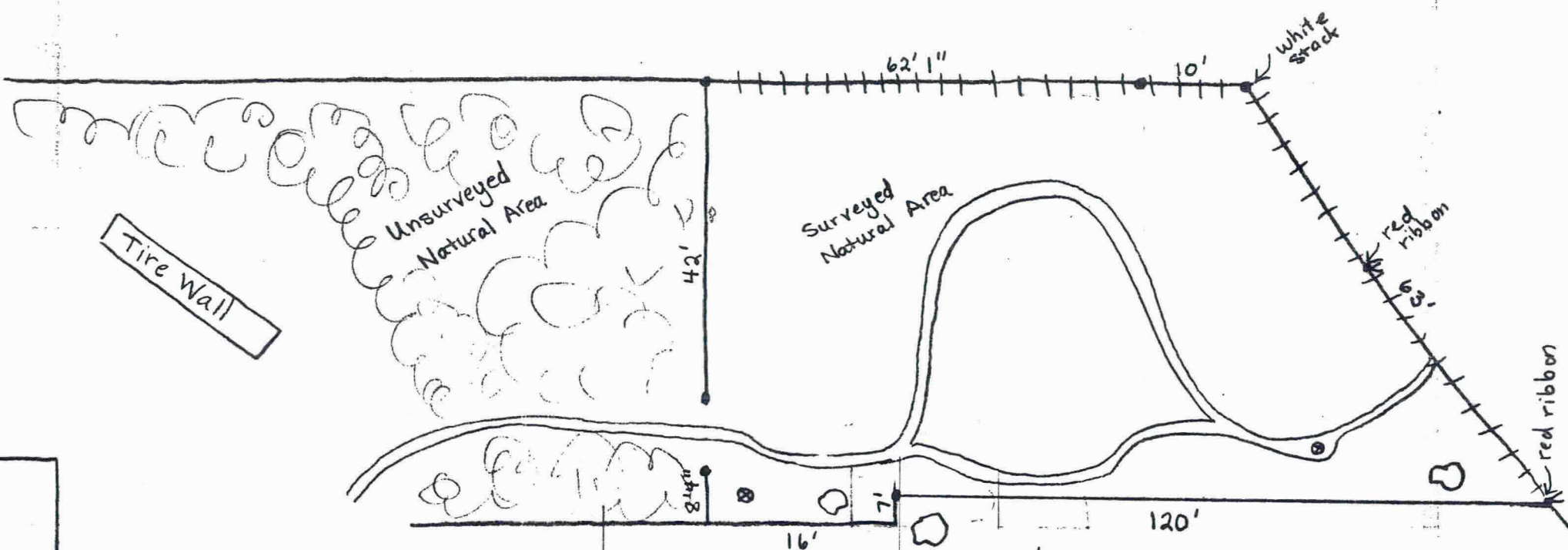
Jerry Kuykendall  
Science Department Chairman  
West Linn High School

**OUR BACKYARD AND BEYOND**  
**An Exploration of the Camassia Watershed Area**

**APPENDIX B**

**Map of Greenspaces  
Surrounding  
Sunset Primary School**





Bones: One Skeleton (Possum?)  
Litter: Too Much  
Ground Cover: 3 varieties  
Rocks: 3 large  
Plants: (15 varieties)  
Bushes: 460 (4 kinds)  
Trees: 47 (4 varieties)

~~~~~ path  
—— fence  
+++++ proposed fence  
○ rock (large)

PROPOSED  
Environmental Learning Center  
Sunset Primary School

Initial Survey  
Leadership Team #8  
February 11, 1993

**OUR BACKYARD AND BEYOND**  
**An Exploration of the Camassia Watershed Area**

**APPENDIX C**

**City of West Linn**  
**Survey**  
**and**  
**Comprehensive Plan**

# ***SURFACE WATER MANAGEMENT***

**NEWSLETTER OF THE WEST LINN SURFACE WATER MANAGEMENT PROGRAM**  
Number 1

November/December 1992

## **STORM DRAINAGE SERVICE CHARGE**

On July 22, 1992 the West Linn City Council adopted an ordinance and resolution establishing a storm drainage utility and rate structure. The formation of this new utility is a result of both federal and state requirements that the city have a dedicated source of funding for storm drainage related programs and the City's recognition that storm water related issues are becoming increasingly more important. On this month's utility bill, customers in 1, 2, or 3 family residential dwellings will see the initial charge of \$3.75 per month per

dwelling. All other improved premises, including businesses, schools, apartments, etc., will see the initial charge of \$3.75 per month per 2914 square feet of impervious surface.

## **WHAT IS IMPERVIOUS SURFACE?**

"Impervious surface" means any surface which either prevents or retards water from soaking into the ground, or causes water to run off in greater quantities than if the surface was in its natural condition. Common impervious surfaces include, but are not limited to, roofs, driveways, sidewalks, streets, and parking lots.

- ☐ Yes, I would like more information.  
☐ Yes, I would like to get involved.

# ***SWM***

Comments: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_



I AM ON A FIXED INCOME. HOW AM I SUPPOSED TO PAY THIS FEE?

Any customer who receives the reduced water service charge for low income citizens shall automatically receive a 50% reduction in the storm drainage fee.

ALL RUNOFF FROM MY HOUSE STAYS ON MY PROPERTY. DO I HAVE TO PAY?

Customers who have facilities or systems to collect and store their own storm water runoff may qualify for a credit or waiver of the storm drainage fee.

WHAT CAN I EXPECT TO SEE?

- \* Consistent regulations and enforcement
- \* A regular storm system maintenance program
- \* Measures such as hay bales, silt fence and matting to control erosion during construction
- \* Grassed waterways being used instead of pipes to carry storm water
- \* Citizen groups doing stream cleanups and watershed monitoring

I AM CONCERNED ABOUT SURFACE WATER QUALITY. WHAT CAN I DO TO HELP?

- \* Get involved and recognize the importance of surface water as a resource
- \* Recycle used motor oil and other recyclable materials
- \* NEVER pour anything into a storm drain
- \* Do not over fertilize your lawn
- \* Landscape your home in a way that uses less water and chemicals, and prevents erosion and runoff
- \* Keep streams and drainage ditches clear of leaves, yard clippings and debris

WHERE CAN I GET MORE INFORMATION?

If you would like more information on how you can help prevent pollution and/or if you or your organization would like to get involved, fill out the attached form and drop it off at City Hall, City Hall Annex or the Library, mail it or call John Hession at 656-4211.

SURFACE WATER MANAGEMENT  
CITY OF WEST LINN  
P.O. BOX 48  
WEST LINN, OR 97068

## NATURAL ENVIRONMENT

The richness of West Linn's environment is one of the principal reasons people come to the City to live and work. Development, however, must be conducted in a manner that strikes a balance between the often competing needs of the man-made and natural systems.

The issues that revolve around the natural environment are many. These issues include the limitations of the air, water and land resources, and the potential hazards they present to development, the maintenance of fish and wildlife habitats, the demand for mineral and aggregate resources, the need to tap potential energy sources, and the need to protect the City's many scenic views and sites. The policies that follow address these issues and more.

### AIR, WATER AND LAND RESOURCES QUALITY

The quality of the area's air, water and land resources have a considerable impact on growth and overall livability. Only through careful preservation and management of these resources will West Linn assure a healthy environment for all its residents.

### FINDINGS

**AIR QUALITY.** Within the City of West Linn, there are no major point source air polluters. The sources of pollution are automobile and truck emissions, Crown Zellerbach, residential wood heat, backyard burning, and impacts from outside the City limits. While the air quality in West



Linn is generally within standards, occasional violation of Total Suspended Particulate (TSP] and OZone (O<sub>3</sub>) standards are recorded at nearby monitors. West Linn is in the designated nonattainment area of O<sub>3</sub> and near the designated nonattainment area for TSP. The Oregon Department of Environmental Quality (DEQ) will be carefully reviewing new industrial source proposals and will apply special standards (New Source Review Rules for Nonattainment Areas) to ensure that air quality will not deteriorate. The City of West Linn lies within the Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA). The area is described in the State Implementation Plan (SIP) for air quality, which shows that the entire area is in nonattainment for meeting revised federal ambient air quality standards for ozone. Predictions indicate that this nonattainment will continue through 1987 unless additional control measures are undertaken. Air pollution is monitored by the Metropolitan Service District and the Department of Environmental Quality.

**WATER QUALITY.** The quality of West Linn's surface waters is good, recognizing that these waters are not used for drinking purposes. No major point source water polluters threaten local creeks or the Willamette or Tualatin Rivers. Some infiltration problems exist in the sewage system, however, these will be corrected when the Tri-City Service District plans are completed. Reduction of open space, removal of vegetation, and development which increases the amount of impervious surface contribute to increase in peak flows of urban storm runoff entering storm sewers, creeks, and drainageways. Offsetting measures can reduce the negative effects of urban development on water quality.



The West Linn adopted Storm Drainage Master Plan, when fully implemented, will considerably reduce the negative effects of peak flows of urban storm runoff.

NOISE CONTROL. Motor vehicle traffic noise and pleasure boat noise are the major sources and contributors to the ambient noise levels in West Linn. Noise levels for almost all residential areas in West Linn appear to be within acceptable levels. The highest noise levels appear to be along Highway 43, along the I-205 freeway and along the Willamette River.

Effective control of motor vehicle and motor boat noise is through emission reduction and improved highway design. These are being addressed by federal, state and regional agencies. The County provides policing authority on the Willamette River. Stricter enforcement of existing state and county regulations will reduce noise levels.

LAND RESOURCES. Solid waste disposal is a regional concern requiring regional solutions. The City of West Linn currently has a Solid Waste and Recycling Committee that is promoting a recycling program. Land quality in West Linn is not currently threatened by a large waste disposal site. As the City of West Linn grows, the problems of providing for solid waste disposal will increase in amount. The Metropolitan Service District has the authority to provide solid and liquid waste disposal in the metropolitan area, and, therefore, cooperation with Metro is essential.

#### GENERAL POLICIES

1. Maintain or improve the quality of West Linn's

- air shed.
2. Maintain or improve the quality of West Linn's water resources.
  3. Maintain a quiet and healthful environment for the residents and citizens of West Linn.
  4. Maintain or improve, if possible, the current quality of West Linn's land resources, and to recognize Metro's responsibility and authority to prepare and implement a solid waste management plan.

#### SPECIFIC POLICIES

##### AIR QUALITY

1. Require, where applicable, a statement from the appropriate agency that all applicable standards can be met, prior to the approval of a land use proposal.
2. Apply the measures described in the DEQ handbook for "Environmental Quality Elements of Oregon Local Comprehensive Land Use Plans" to land use decisions having the potential to affect air quality.
3. Cooperate with the State Department of Environmental Quality and the Metropolitan Service District to attain and maintain the air quality goal described in the State Implementation Plan (SIP).
4. Make every effort to design municipal streets and to establish traffic flow patterns which minimize or reduce vehicular emissions.
5. Continue to utilize expertise available at the

Department of Environmental Quality., the Metropolitan Service District, and other relevant agencies, to coordinate efforts aimed at reducing air pollution emission levels in West Linn and the Portland area.

6. Take appropriate action, including consultation with the State Department of Environmental Quality, to ensure that land uses and activities in West Linn comply with federal and state air quality standards.
7. Aim to reduce the quantity of vehicle emissions by pursuing an energy efficient urban form which reduces the number of vehicle miles traveled, and by encouraging the use of alternative modes of transportation, especially mass transit and pedestrian walkways.
8. Minimize TSP (Total Suspended Particulate) impacts in the City's winter sanding and street sweeping programs.
9. Cooperate with Metro and DEQ to reduce open burning impacts through efficient yard debris collection and transfer.

#### WATER QUALITY

10. Require that new development be designed and executed so as to avoid further degradation of surface and groundwater quality by runoff, paying particular attention to the mitigation of soil erosion during and after the development process.
11. Cooperate with the Metropolitan Service District and appropriate agencies to establish practices



which minimize the introduction of pollutants into ground and surface water.

12. Recognize the City's responsibility for operating, planning and regulating wastewater systems as designated in Metro's Wastewater Treatment Management Component and the 208 CRAG study.
13. Require that new development be connected to the City's sanitary sewer system.
14. Work with Metro and the Tri-City Service District to alleviate the problem of the sewer system bypassing untreated sewage directly into the Willamette River during rainy seasons.

#### NOISE CONTROL

15. Require development proposals located in a noise congested area or which are a noise generator, to incorporate the following into the site plan:
  - a. Building placement on the site in an area that will minimize noise levels.
  - b. Landscaping and other techniques to lessen noise impacts to levels compatible with the surrounding land uses.
16. Coordinate with DEQ in its noise regulation program and apply the DEQ Land Use Compatibility Program.
17. Require, where applicable, a statement from the appropriate agency, prior to the approval of a land use proposal, that all applicable standards can be met.
18. Ensure that future noise sensitive developments are designed and located so as to minimize the intrusion of noise from motor vehicle traffic and noisy uses.

19. Ensure that new commercial, industrial, and public facility development is landscaped and designed so that DEQ noise standards are met, and neighboring noise sensitive properties are not negatively impacted by the new land use or associated activities.
20. Seek a response and assistance from DEQ when reviewing commercial or industrial uses.
21. Apply all applicable federal, state and local laws in implementing this Plan.

#### LAND RESOURCES

22. Actively participate with the Metropolitan Service District and the Department of Environmental Quality in the solid waste site selection process.
23. Discourage solid waste sites in West Linn which would adversely affect neighboring land uses or which are unsuitable because of natural conditions at the site, including: depth to water table, soil conditions, impacts upon drainage, and water quality degradation or similar problems.
24. Ensure that future land use activities with significant waste and process discharges conform to all state and federal environmental quality standards.
25. Seek a response or assistance from the DEQ or any other interested state or federal agency when reviewing proposed land uses with potential for significant waste and process discharges.
26. Continue to use local recycling services and encourage and cooperate with all recycling agencies which conform to state and federal environmental quality standards.



27. Support Metro's "Procedures for Siting Sanitary Landfill" and participate in these procedures as appropriate.
28. Continue the Solid Waste and Recycling Committee which serves as an advisory group to the City Council.
29. Work with Metropolitan Service District in future solid waste planning efforts.
30. Ensure all future development will comply with DEQ, air quality, water quality and noise control standards.

#### NATURAL DISASTER AND HAZARD AREAS

Many of the natural features of West Linn, such as hillsides, topography and the flood plains, impose limitations on development. If not recognized in the development process, these can create public health and safety hazards. Improperly engineered hillside construction can endanger downslope development. Erosive soils create stream siltation. Landslide areas are known hazards to safety.

**Physical Limitations.** The vacant land within the City of West Linn includes 678 acres or 57 percent which is in steep hillsides (over 25 percent slope), or landslide areas, or in the flood plain. This land is not included in the vacant buildable land classification.

Combinations such as steep slopes, unstable soils and landslide areas create severe development constraints. Excessive development in such physically limited areas increases the potential severity of landslides, soil



erosion, earthquake damage and flooding.

Earthflow and slump topography exist in some of the hillside sections of West Linn and are associated with poor drainage, shallow subsurface flow of groundwater and springs, and high susceptibility to erosion. Earthflow and slump occurrences can damage buildings and roads and adversely affect water quality and destroy vegetative cover. Mass movement has not resulted in any loss of life or property in West Linn, however, the possibility exists. A fault line runs through West Linn parallel to the Willamette River. A major earthquake could trigger land slides.

**Flood Plains.** The City of West Linn is bordered by two major rivers, the Willamette and the Tualatin, which have long histories of flooding. West linn lands are within the 100-year flood plain of these rivers. The Corps of Engineers has detailed information gathered on the flood plains, as well as flood control programs and policies.

The City is within the coverage provided by the National Flood Insurance Program, and has an ordinance which meets the federal standards.

The City of West Linn currently has within its Development Code adequate controls for any development occurring within the flood plain. The uphill streams and drainage courses which drain into the two rivers can also impact the flood plain and flood conditions along the river banks.

**Earthquake.** The City has experienced one moderate earthquake within the last twenty years. The epicenter of

this earthquake was several miles north of West Linn, and no specific damage was reported in West Linn. A geological fault runs parallel to the river and at the base of the ridge line, crossing the Willamette River at Willamette Falls.

#### GENERAL POLICIES

1. Ensure development and land form alterations are directed away from areas with known hazards, and require development limitations except where design and construction techniques can mitigate adverse effects.
2. Minimize losses due to river flooding.
3. Minimize losses due to earthquakes.

#### SPECIFIC POLICIES

1. Classify all land within the City boundaries into four classifications which identify development limitations. These land classifications shall be as follows:

- a. Type I Lands. These lands have severe constraints that preclude the use of standard development techniques and technical criteria. Development should only be allowed on Type I lands as a planned unit development, or on an existing lot as a single-family dwelling. Type I lands exist in the following areas.

Slope: All lands with 35 percent or more slopes.

Drainage: All lands within the 100-year flood plain.

Geological Hazard: All existing or known landslide areas.

- b. Type II Lands. These lands have constraints that are sufficient to preclude most standard types of development. Constraints in these areas generally do not constitute a health or safety hazard, but will require the use of non-standard technical design criteria. Development should only be allowed on Type II lands as a planned unit development, or on an existing lot as a single-family dwelling. Type II lands exist in the following areas.

Slope: All lands with slopes between 25 and 35 percent.

Drainage: All drainage courses.

Geology: All known mineral and aggregate deposits. (A reclamation plan must be filed for these deposits showing the approved type of development which will occur after the mineral or aggregate deposit is removed).

- c. Type III Lands. These lands are considered within the major portion of the City's developable lands. Standard development criteria can be applied through normal implementation measures. Type III lands exist in the following areas.

Slope: All lands between 15 and 25 percent slope.



- d. Type IV Lands. These lands are considered to have few, if any, constraints to development and are within the major portion of the City's developable lands. Normal development standards will apply in these areas.

Slope: All lands between 0 and 15 percent, unless other constraints are found.

2. Maintain a map of City lands which identifies generally lands with known physical limitations and hazards.
3. Require that proposed development sites composed of more than 25 percent Type I and Type II lands be developed as a planned unit development.
4. Require soils and engineering geologic studies for development in known hazard areas.
5. Continue to participate in the National Flood Insurance Program.
6. Update its flood hazard maps as the Corps of Engineers provides new information on flood hazard boundaries and develops new policies for flood control programs. Willamette and Tualatin River 100-year flood plains will be managed to protect their natural functions as well as to protect the lives and property of those individuals living within and along that flood plain.
7. Prohibit any land form alterations or development which would result in a rise in elevation of the 100-year flood plain.
8. Maintain the natural vegetation within the flood plain.
9. Require that construction of new commercial, industrial, public and multi-family structures within maximum expected occupancies of over 100 people per structure, be subject to the Uniform Building Code requirements for Seismic Zone 2.

10. Coordinate with the Department of Geology and Mineral Industries in delineating earthquake faults and adopt specific policies related to the location and design of structures if appropriate.

### NATURAL RESOURCES

The purposes of the natural resource element is to protect areas which are necessary to the long term health of the community, and the general economy; for example, mineral and aggregate sources, watersheds, wildlife habitat areas, and ecologic and scientific areas and open space. The intent of the policies is to protect these resources for their natural value. Mineral, aggregate, watershed areas and energy sites are limited, and inappropriate land uses can destroy their future use.

Significant habitat and ecological/scientific areas are important to the public and the community for their educational, recreational and research value.

### FINDINGS

West Linn has abundant natural resources which contribute to its quality as a suburban community with significant amenities. It is endowed with excellent scenic views of Mt. Hood, Mt. St. Helens, the Cascades, the Willamette River and the Coast Range. It has a wide variety of wildlife co-existing in the suburban environment, it has scenic and recreation abundant rivers, water resources, historic buildings and sites, aggregate deposits, and dense stands of native cover and trees. It also has one of the Willamette Valley's most unique and fragile ecological and



scientific areas -- Camassia Natural Preserve.

The rivers (Willamette and Tualatin) are rich recreation resources and as such, their qualities for a wide range of recreation activities are valued by City and regional residents. Willamette Falls is a long known energy site with a potential for hydroelectric generation. West Linn also has an orientation suitable for encouraging the use of individual residential solar energy, since most of the hillsides slope to the east, south or southwest.

The extent of West Linn's natural resources provides the City with both a long term investment and a responsibility to protect and promote the quality of these resources.

#### GENERAL POLICIES

1. Preserve or enhance scenic views and sites.
2. Encourage the preservation of permanent natural areas for fish and wildlife within the City.
3. Assist in the preservation of open space, habitat and scientific/ecological significant areas.
4. Require that trees in park lands, natural areas and open space be preserved wherever possible.
5. Encourage and promote the development of energy sites within the City of West Linn.
6. Protect areas with mineral and aggregate resources and allow extraction from existingsites where such activities do not violate state and federal environmental quality standards and the public health, safety and welfare.



## SPECIFIC PURPOSES

### Scenic Views and Sites

1. Establish specific landscaping and design standards for multi-family, commercial and industrial uses in order to enhance the urban landscape and prevent or minimize obscuring community views.
2. Work with the state and county in the installation of appropriate plaques or markers at view points, as well as directional markers along scenic routes.

### Fish and Wildlife Areas

3. Require that areas of standing trees and natural vegetation along natural drainage courses and waterways be maintained to the maximum extent possible in order to preserve habitats and to prevent erosion.
4. Require that development in areas with timber or large trees be designed to minimize the number of trees removed.
5. Require cluster type development in areas having important wildlife habitat value as delineated on the "Natural Resources and Historic Sites" map on file at the City.
6. Establish development strategies in the City's regulations for hillsides and flood plains which minimize or prevent loss of riparian habitat.
7. Promote and encourage cooperation with the Audubon Society, and such national programs as the National Wildlife Federation Back Yard Wildlife Program, already existing in West Linn.

Open Space, Habitat and Ecological/Scientific Areas

8. Manage the following open space, habitat and ecological/scientific areas in order to preserve their unique qualities.
  - Camassia Nature Preserve
  - Goat Island
  - Burnside Park
  - Wilderness Park
  - Tualatin River Frontage East of Weiss Bridge
  - Riparian Zone downstream from Willamette to Industrial Area
  - Riverfront from Burnside Park down river to Cedaroak Boat Ramp
  - Cedar Island
9. Control activities and uses within the areas identified above to maintain ecological values, while providing for compatible recreational and educational activities.
10. Develop a Tualatin River Protection overlay zone to maintain the integrity of the Tualatin River by establishing standards which will minimize erosion, promote bank stability, maintain and enhance water quality and fish and wildlife habitats, and preserve the scenic quality and recreation potential and assure that streams and drainageways are protected for their drainage function. (ORD.1291;10/90)
11. Protect open space areas along hillsides and areas with erosion hazard potential through development controls.
12. Provide a buffer zone of vegetation in those parks which have a mix of natural areas and more intensive recreation uses so that the natural areas will not be adversely affected by recreation activities.



13. Work with federal, state and county agencies to establish nature trails and educational markers in significant natural areas.
14. Access by wheeled motorized vehicles onto the Willamette and Tualatin River Beach areas except on public streams and drainageways. (ORD.1291;10/91)
15. Encourage public ownership of riparian areas along streams and drainageways.
16. Establish measures to protect wetlands and riparian areas as identified in the study titled "Wetland Inventory of the City of West Linn, Oregon", July, 1988.
17. Establish vegetation maintenance guidelines for wetlands and riparian areas.
18. Where practical, require dedication of wetlands and riparian areas to the City to assure protection and maintenance.

#### Urban Forest

19. Require that land development will maintain existing trees which exceed six inches in diameter at breast height (DBH) except where:
  - A roadway is being developed
  - A building site is being developed
  - Solar access is needed for a solar heating system.
20. Require as a condition of approval to any land development proposal and planting of trees.

#### Energy Sites

21. Work with PGE in researching the potential for a hydroelectric generation plant.
22. Seek the assistance, advice and cooperation of other jurisdictional agencies in regard to the impact and long term results of the development of a hydroelectric generation plant at Willamette Falls.



23. Support a full citizen's participation effort in the planning and implementation process for the development of a hydroelectric generation site.

#### Mineral and Aggregate Resources

24. Protect and conserve areas identified as having mineral and aggregate resources to allow the removal of those resources. Mineral and aggregate sites shall be planned for both short term and long term reuse.
25. Discourage the development of lands adjacent to identified mineral and aggregate resource sites or stage such development to coincide with the depletion of the site resource in order to ensure the continued short term use of the site.
26. Ensure the extraction of mineral or aggregate materials is conducted in a manner that protects the surrounding property from damage.
27. To the extent possible, screen extractive processes from view to the surrounding properties; operate such processes in a manner whereby excessive dust is controlled through watering or other acceptable practices; and limit hours of operation as necessary to make them compatible with surrounding land uses.
28. Allow utilization of sites only when there is direct access to minor or major arterial streets or when local residential areas are not significantly affected by truck traffic.
29. Require development of a short term utilization plan as part of the conditional use permit application, to form the basis for the operational conditions surrounding the extraction process.

30. Require all sites to be planned for reuse upon depletion of the resource. During resource extraction, the property owner shall be responsible for planning and reconstructing the site.
31. Require any use of the site to be consistent with the land use policies in the Comprehensive Plan and with a long term reclamation plan, developed as part of the conditional use permit.

#### WILLAMETTE RIVER GREENWAY

The notion of adapting conservation and management measures to protect the Willamette River from urban development in the River Corridor first surfaced in the late sixties. The enactment of several bills by the State Legislature set the stage for today's Willamette River Greenway Program. Through State mandate (ORS 390.314) the Department of Transportation (DOT) was charged with the task of developing a Greenway Plan through a cooperative effort of the state and local governments. In 1974, the Preliminary Willamette River Greenway Plan was completed, depicting proposed Greenway boundaries. Subsequently, the Land Conservation and Development Commission (LCDC) was directed to revise the Plan as deemed necessary (i.e., its boundaries) and determine how the Plan was to be carried out, all through a cooperative state/local effort. LCDC went through a series of local and regional meetings and hearings while revising the Greenway Plan. The result was a revised Greenway Boundary and adoption of Statewide Planning Goal 15, Willamette River Greenway.



## FINDINGS

The Willamette River borders West Linn on the southeast and northeast for a lineal distance of approximately 6.4 miles. The river is used extensively for recreation and commerce. During peak usage the river is over used for swimming, boating and water-skiing. The condition is estimated to get worse by the year 2000. All lands within the West Linn Willamette River Greenway are either developed or committed to urban uses. Based upon shoreline frontage, about 38 percent of the Greenway is developed and/or zoned for industrial use, 37 percent developed for residential use and 25 percent in public ownership primarily for recreational use. Public access to the Willamette River is provided at all seven park sites within West Linn.

The Willamette Falls Locks and McLean House are two identified historic area/structures within the West Linn Greenway. Three archaeological sites are located within the Greenway as well. West Linn is rich with scenic views and sights along the Willamette River. Several areas along the Greenway in West Linn are subject to flooding. Most extensive flooding has occurred around the Willamette Falls Locks/Crown Zellerbach areas and the residential areas are just north of I-205 and northwest of Cedar Island. Cedar Island and the Willamette River channel are approved sites for aggregate extraction. Protective measure are needed to ensure maintenance of fish and wildlife habitats.

There are over 11 state and federal agencies charged with managing the Willamette River and its resources.



## GENERAL POLICIES

1. Protect or enhance the valuable natural resource provided by the Willamette River, its islands, its shores and its natural habitat.
2. Continue to improve public access and recreation opportunities along the Willamette River Greenway.

## SPECIFIC POLICIES

1. Apply a Willamette River Greenway Zone to the area within the LCDC adopted Willamette River Greenway boundary to include the water area and islands, and establish a setback line within the zone.
2. Undertake efforts to make existing points of public access more accessible and usable through signing and maintenance.
3. Coordinate with the State in programs designed to restrict access between public and private lands.
4. Establish the understanding that nothing within the State of Oregon and the City of West Linn Greenway program is intended to authorize the public use of private property.
5. Ensure properties identified for public acquisition have potential to serve the purposes of the Greenway, are suitable for permitting the enforcement of existing statutes relating to trespass and vandalism along the Greenway, and are suitable for allowing maintenance of the lands or interests acquired.
6. Consider the following properties for public acquisition by the City.

- a. Area 1 - Includes the areas generally north of Burnside Park and includes Tax Lots 100, 200, 300, 301, 500, and 600, T2S, R2E, Section 30 (2-2E-30BB).
  - b. Area 2 - Includes an area south of Burnside Park and includes Tax Lots 800, 1100, 1200, 1300, 1400, 1500, T2S, R2E, Section 30 (2-2E-30BD).
  - c. Area 3 - Includes the area south of West Bridge Park between I-205 and the river and includes Tax Lots 300, 400, 600, 700, 800, 900 and 1000, T2S, R2E, Section 30 (22-E-30DC).
- 7. Defer action on any proposal for review or permit involving the properties identified above for a period of 90 days during which time the City will attempt to identify the means by which the property can be acquired for public purposes. If the City is unable to initiate such action within the time period, the proposal will be processed.
- 8. Require a conditional use permit for any intensification of uses, changes in use or developments within the Willamette River Greenway boundary except as otherwise provided by the Willamette River Greenway Zone, subject to the following:
  - a. To the greatest possible degree, provide the maximum landscaped area, open space or vegetation between the activity and the river.
  - b. To the greatest possible degree, provide access to and along the river by appropriate legal means.

9. Require the following criteria be applied where recreational uses are proposed:
  - a. Local, regional and state recreational needs will be consistent with the carrying capacity of the land.
  - b. Public recreation uses be buffered to the greatest extent practicable to minimize disturbances and to prohibit trespassing onto adjacent lands.
10. Require adequate public access to the river as part of the development of public land.
11. Preserve identified scenic qualities and views.
12. Protect the natural vegetative fringe along the river to the maximum extent practicable.
13. Permit the partial harvest of timber beyond the vegetative fringe not covered by a scenic easement provided it is:
  - a. Consistent with an approved plan under the Forest Practices Act or if not covered by the Forest Practices Act,
  - b. Consistent with a plan approved under the Greenway compatibility review procedures.
14. Permit aggregate extraction provided it is compatible with the purposes of the Greenway and in compliance with all local regulations designed to minimize adverse effects on water quality, fish and wildlife, vegetation, bank stabilization, stream flow, visual quality, noise and safety, and to guarantee necessary reclamation.
15. Require nonwater related structures of water dependent uses to set back from the river in



accordance with an established setback line in order to protect, maintain and preserve the Willamette River Greenway.

cp-naten

**OUR BACKYARD AND BEYOND**  
**An Exploration of the Camassia Watershed Area**

**APPENDIX D**

**West Linn High School**  
**Environmental Studies Project**

September 16, 1992

West Linn High School is making a concerted effort to meet its goal of becoming a 21st Century school and providing students with opportunities to work with advanced technology. This is evident in the district's major budget commitment for technology and the cooperation and support from TCI Cable and IBM in networking our school with computers and monitors--one per classroom.

Our science department has used Apple IIe computers in the past for laboratory interfaced experiments, and now we are in the process of converting to IBM or IBM compatibles. Our biology department is part of the Tualatin River study which will require substantial computer use on the part of our students to manipulate and communicate field and lab data. We have an environmental research center which has direct satellite readout capabilities, and we are part of MET-NET, a regional meteorological and climatology study. In addition, we have a research class with students currently engaged in such projects as:

- pH of plant pigments
- electrophysiology
- electromagnetic field conduction of lightning pulses
- flora and fauna inventories of local nature habitats
- earthquakes and seismology
- salmon survival
- meteorology
- cyclonic storm behavior
- chaos theory

Our network computers are extremely valuable for communication needs and locating source materials, but they are not functional for lab use (interfaced) or for student research needs requiring direct access to the hard drive. As a result, we find ourselves limited in the freedom we need to allow students to explore and to enhance science activities. Budget constraints this year do not permit us to purchase additional computers. We need one or more 386 and/or 486 PC's to be used by students to complement their hands-on science activities.

Any assistance in this matter would be greatly appreciated. Please feel free to contact me at work (656-2618) or at home (692-5551) if you have any questions.

Thank you for your consideration.

Sincerely,

Jerry Kuykendall  
Science Department Chairman



September 25, 1992

TO: Clark, Bob, Debbie, Pat, Kate

FROM: Jerry Kuykendall

SUBJECT: Progress Report on Research/Independent Study in Science

1. Paul Sherman's Biology II classes are participating in a study and inventory of the Tualatin River Watershed. This is a major study project coordinating high school and university researchers.

2. Twenty-five students are undertaking individual research projects. At present, topics include--

The Conduction of Lightning Radio Pulses by the Earth's  
Magnetic Field

The Behavior of Severe Cyclonic Disturbances

Direct Satellite Imagery

Microelectronics-Applications in Seismology

Electrophysiology

The Chemistry of Plant Pigments

Using Natural Substances as pH Indicators

Chaos Theory and Fractals

Territorial Behavior in Fish

Survival of the Salmon

Flora and Fauna Inventories of Local Parks and Preserves

Meteorology and Climate

3. Future research may be done in the following areas:

Direct Monitoring of Animal Migrations

El Nino and Climate

Pacific Ocean Currents and Upwellings

A Space Studies Project for a future NASA Space Launch

4. These projects will have immediate impact on Biology II and Oceanography classes. Our department is working on applications for Biology I and Physics curriculum.

5. Curt Nelson has assisted us with computer applications. Hut Calhoun is working with our students who are building electronics apparatuses necessary for research projects. Alan Quick is assisting students with their searches for source materials. Future integration is planned--  
(1) with social studies for issues on the environment and for geography, (2) with art for printing colored visible and infrared images of the earth, and (3) with mathematics for calculating orbits and tracking earth satellites.
6. Once the glitches in the system are corrected, we would like to inservice the staff on the capabilities of our direct readout satellite system. Gary Epplesheimer wants to provide a means for satellite images of the earth to be broadcast on our TCI monitor network.
7. We plan on having a dedication ceremony for our "Environmental Research Center" sometime this fall, inviting parents, students, teachers, administration, school board, interested community members and the press. We plan on having a plaque honoring all those who have donated time, effort, and money to make this technological "cutting edge" possible.
8. Our biggest problem is one that most schools wish they could have. At first we did not know how to get onto the "technology freeway". Now that we are on, we want to go faster than our present model vehicle allows. At least our students can see the "real world" problems that act as hurdles in any research project. Their problem solving skills will be greatly enhanced by their participation in this **GREAT EXPERIMENT.**



**Satellite Research Center  
Budget Adjust for  
Purchase of Equipment**

This center will provide direct access to U.S. and Soviet satellites that are constantly monitoring the earth and our environment. The data obtained will provide a basis for both long and short term research projects and activities. This system will support a research class, independent study students, research projects within regular classrooms, and special projects for students within other classes. Students will be able to receive and record "real" data, analyse it, communicate with advisors and/or mentors, make conclusions, and suggest recommendations for further research.

The center will be operated by students in the research class, and they in turn will conduct laboratory research to support and enhance the satellite data. Every effort will be made to link these students to a professional advisor and/or mentor. Some of the projects immediately available with this system include:

- pollution studies of air and water
- ocean currents
- weather and climate
- fisheries
- survival of the salmon
- El Nino
- joint social studies/science projects on geography and the environment

**Future project capabilities include:**

- animal migrations
- whale studies
- vegetation studies--Rain Forest, Mt. St. Helens
- succession, timber harvest

The budget adjusted funds will be combined with a Murdock Grant of \$3000 that has been awarded to help support this project. In addition, this center will be connected to the TCI school network for transmission of images and data to any and all classrooms in the school.

Two science teachers on the WLHS staff have been trained on the use of the equipment at the training session sponsored by NASA, NOAA, and Weber State University.

When this year's budget was prepared (fall of 1990), we were not aware of the possibility of such a center in a high school, the opportunity for a supplemental support grant, or the incredible potential and impact of such a system with the TCI network(which had not yet been proposed). Given the dramatic change now underway as WLHS incorporates modern technology, we request a budget adjustment to make the satellite research center possible.