Tualatin River Wetland
West Linn, Oregon
Habitat Restoration Grant No. 904687
Final Report

1. Written summary of grant activities that include progressive steps on how actual activity/project was completed.

Habitat restoration grant activities were closely linked to Education Grant activities. Willamette Primary School students were involved with both grants as they learned about wetlands in the classroom through presentations by Steve Mills and Kristi Meyer, and through projects assigned by their teacher. In addition, the students were given the opportunity to install plants in the riparian area, wetlands, floodplain, and uplands of the grant site.

Sequence of events:

1. After the final design of the project was completed by Mr. Silverman's class, Mr. Pryor's class planted plants in the fall of 1996 with help from City staff, Friends of Trees, and Clackamas County's HEEL group. The areas that were planted during this time included the riparian area, floodplain, and emergent wetland.
2. Also during the fall of 1996, EnviroCorps removed a portion of the blackberries on the hillside.
3. City staff placed protective fencing around new plantings within the riparian area to prevent further damage from what was believed to be either beaver or nutria.
4. Between the spring and fall of 1997, Eagle Scouts constructed and installed three benches, a fishing platform, nesting boxes, trails, and a bioswale on the site.
5. Three Western red cedar trees were removed adjacent to the site for use as rearing logs in the emergent wetland and the rearing area along the Tualatin River. The trees would have been removed anyway by the property owner for placement of a swimming pool. The trees were cabled to shore.
6. The City Parks Department removed additional blackberries from the hillside.
7. Eagle Scouts performed their projects during the summer and fall of 1997.
8. During the fall of 1997, two elementary school classes, City staff, parents, and Friends of Trees installed plantings within the uplands of the site.
9. The trailhead sign was installed in the winter of 1997.

2. **Written evaluation and comments by the grantee and/or others involved in the activity project. This should include what worked/what did not work/helpful hints for future project managers.**

What worked:

Student participation: The involvement of Willamette Primary School students in the planting of the site worked very well. As a whole, the students were enthusiastic and hard workers. However, it did help when more adults were available to supervise smaller groups of students.

Eagle Scouts: This grant project provided several diverse Eagle Scout projects. As stated above, Eagle Scouts constructed and installed benches, a fishing platform, a bioswale, nesting boxes, and trails. The Eagle Scouts worked hard and satisfactorily completed each of their projects. Fifty percent of the trail on the floodplain was completed. The remaining trail cannot be completed until the site dries out.

Friends of Trees: The volunteers from Friends of Trees exceeded our expectations. They worked well with the students, and used the opportunity during planting to educate the students about native vegetation and the proper way to plant shrubs and trees.

What did not work:

Blackberry removal: EnviroCorps removed a portion of the blackberries on the hillside. However, it resulted in a very high cost with little results. Parks Department personnel removed a vast majority of the remaining blackberries at a comparatively low cost as they had the proper equipment (i.e. weedeater and herbicides).

Plant survival: A large portion of the site includes the floodplain of the Tualatin River. During January of 1997 (and after the fall plantings!), the entire site with the exception of the hillside was flooded. Therefore, many of the new plantings along the river were washed away. In addition, beaver and/or nutria also favored the red-osier dogwood for their meals. Protective fencing placed around these shrubs was also washed away during the floods.

Trail access: We did not anticipate that a portion of the trail to the site would slump, resulting in the trail becoming significantly narrower in places. This made it difficult to reach the site with equipment (i.e. bobcat and tractor) and therefore caused delays in the project.

Consultant: The use of a consultant for on-site meetings and plant installation was costly.

Helpful hints:

1. Be sure to have enough adults on hand to supervise groups of elementary school students.
2. Keep consultant's role to a minimum as their involvement could substantially increase the cost of the project.
3. Blackberry removal will take at least twice as long as you originally planned for.
4. Have a good maintenance plan in place to prevent new plantings from being overtaken by reed canary grass, blackberry bushes, and other invasive species.
5. Try using bareroot rather than container plants when planting within riparian corridors. This may reduce the number of plants washed away by floods.

3. Photo documentation showing how the activity/project was accomplished.
See attached photos.

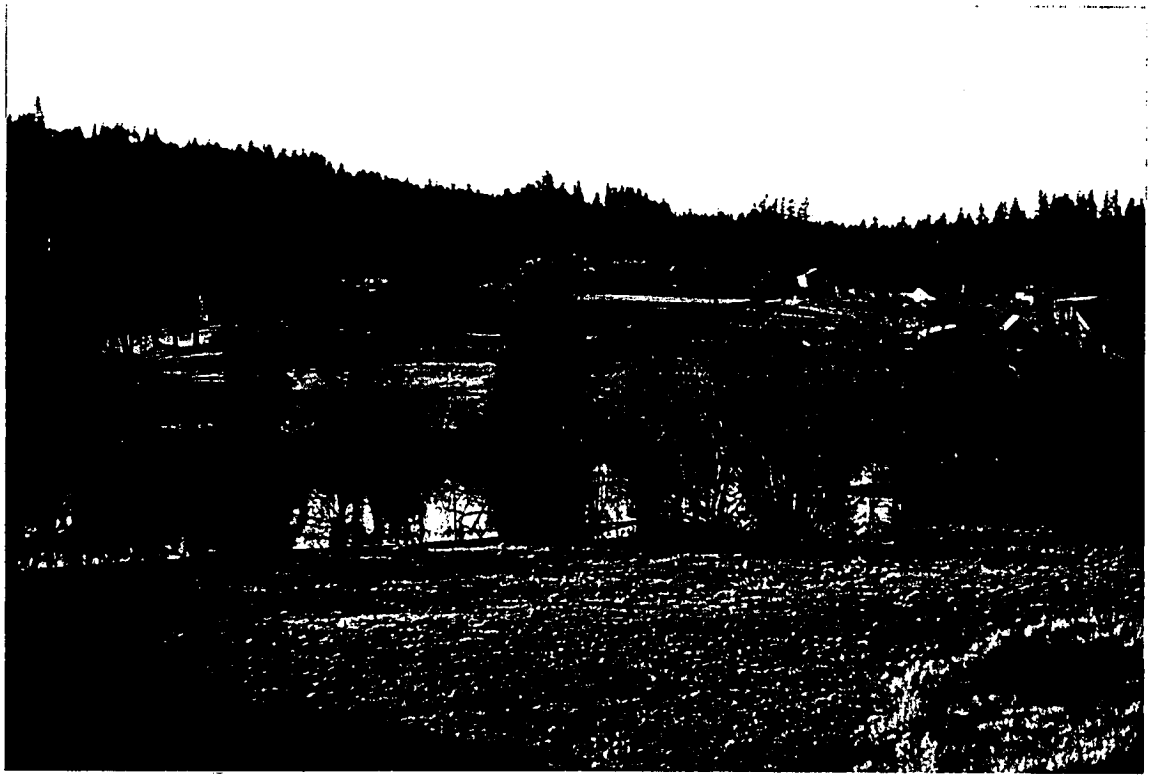
4. If the grant included a restoration/enhancement portion, please include before/during/after photos of the site.
See attached photos.

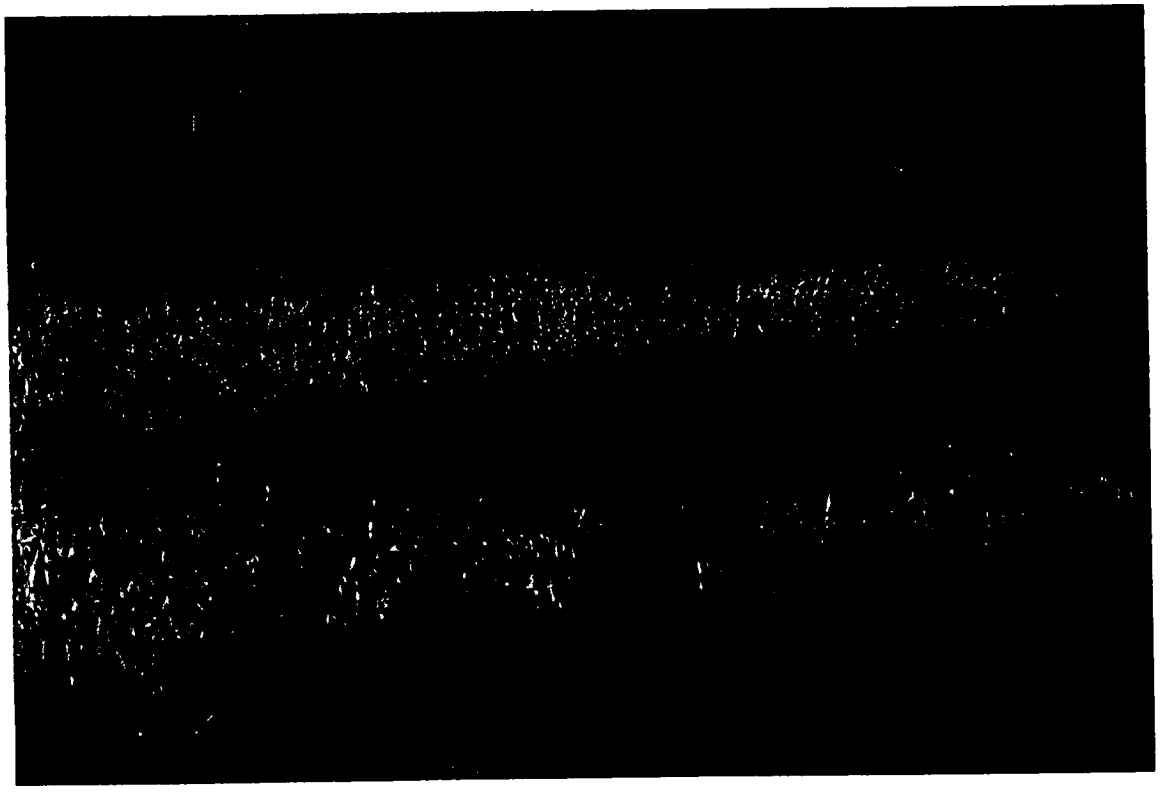
5. If the grant included a restoration/enhancement portion please outline the maintenance plan or follow up activities that will ensure success of the project.

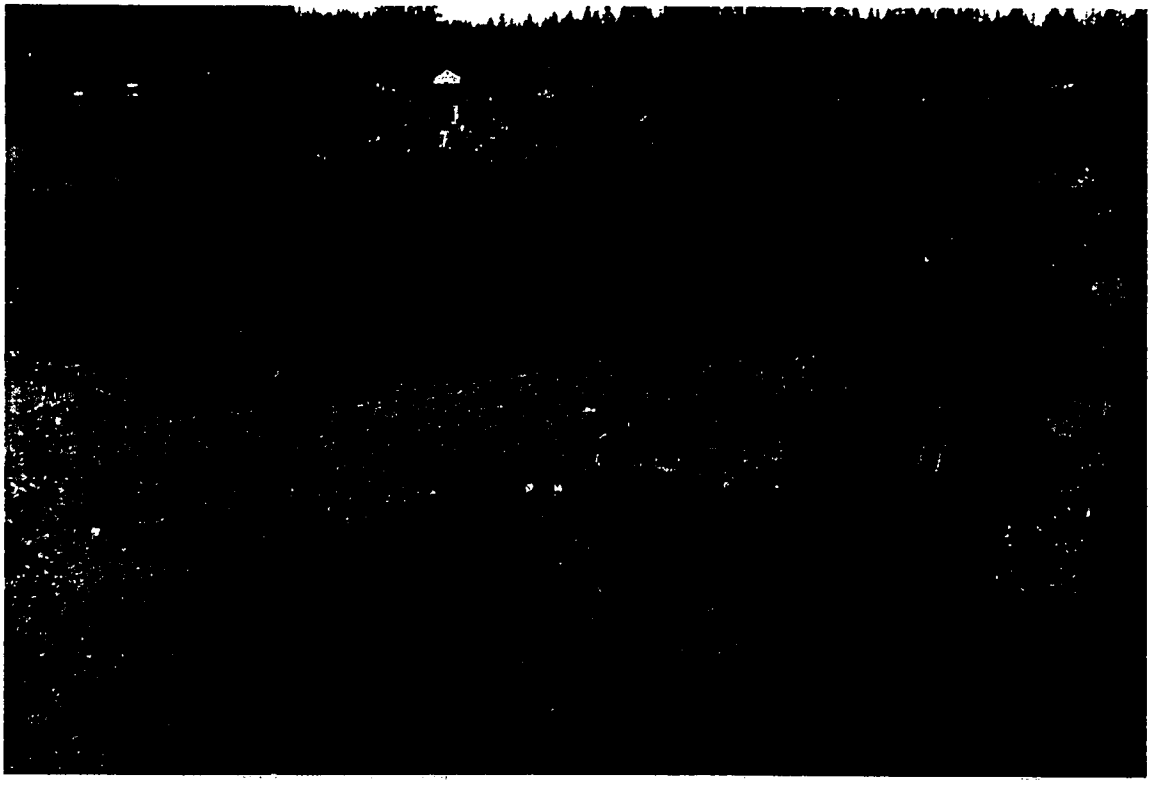
As stated in the Tualatin River Wetland Restoration grant application, the goal of this project is the creation and implementation of a design that is relatively maintenance free and self-sustainable. The plants selected for the project are native to the area and are low maintenance. Through the next two dry seasons, City staff and volunteers will monitor the condition of the project through an inventory to identify any damage to the site (i.e. damage to benches, trails, bioswale, and most importantly the new plantings.) Long-term management of the site will be through the City Parks Department and Planning & Development Department. The planting plan was divided into zones (i.e. rearing area, emergent wetland, upland, etc.). The planting plan will be used to determine the number of plants surviving in each zone in order to calculate the percentage of survival. The challenges facing this site include encroachment of new plantings by reed canary grass and Himalayan blackberry bushes.

6. Actual product of the grant such as curriculum, video, guide, brochure, etc. that the grant monies funded.
See enclosed video as well as final report for the Tualatin River Wetland Environmental Education Grant submitted in June of 1997.

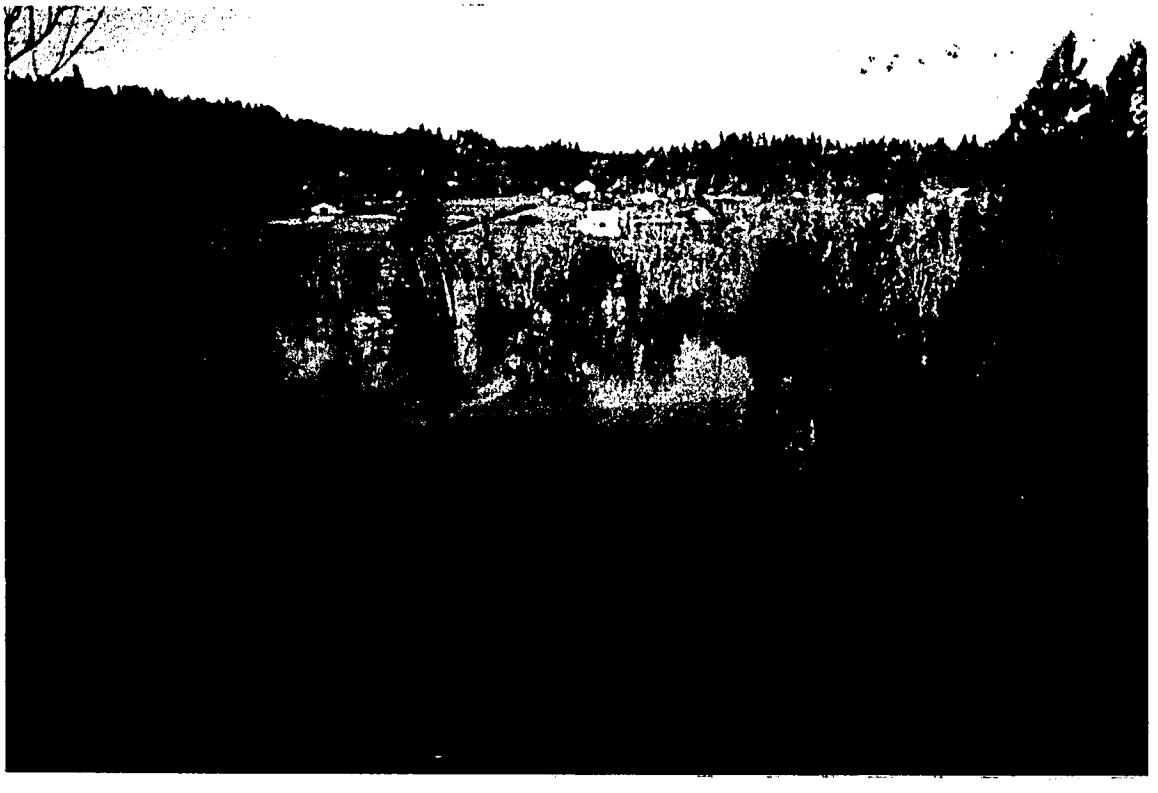
Tualatin River Wetland Project





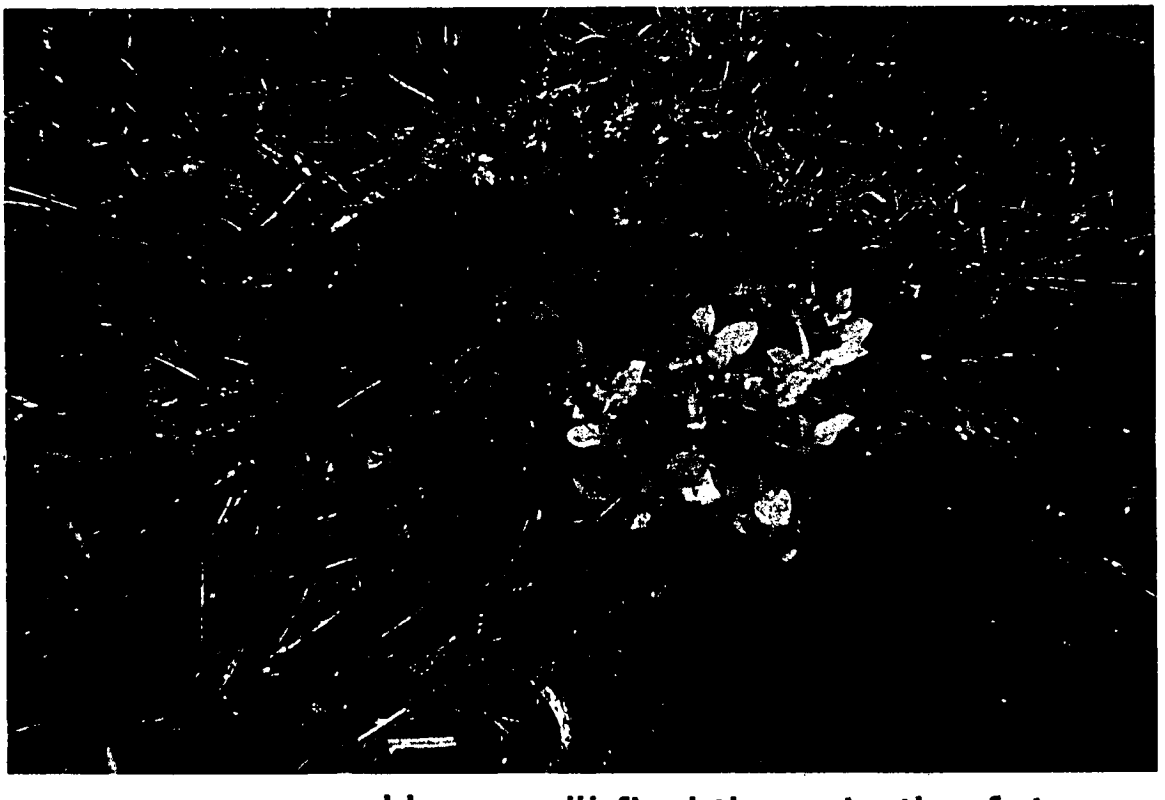


At times the site was dry



and at other times, not so dry.

How we got the plants there.



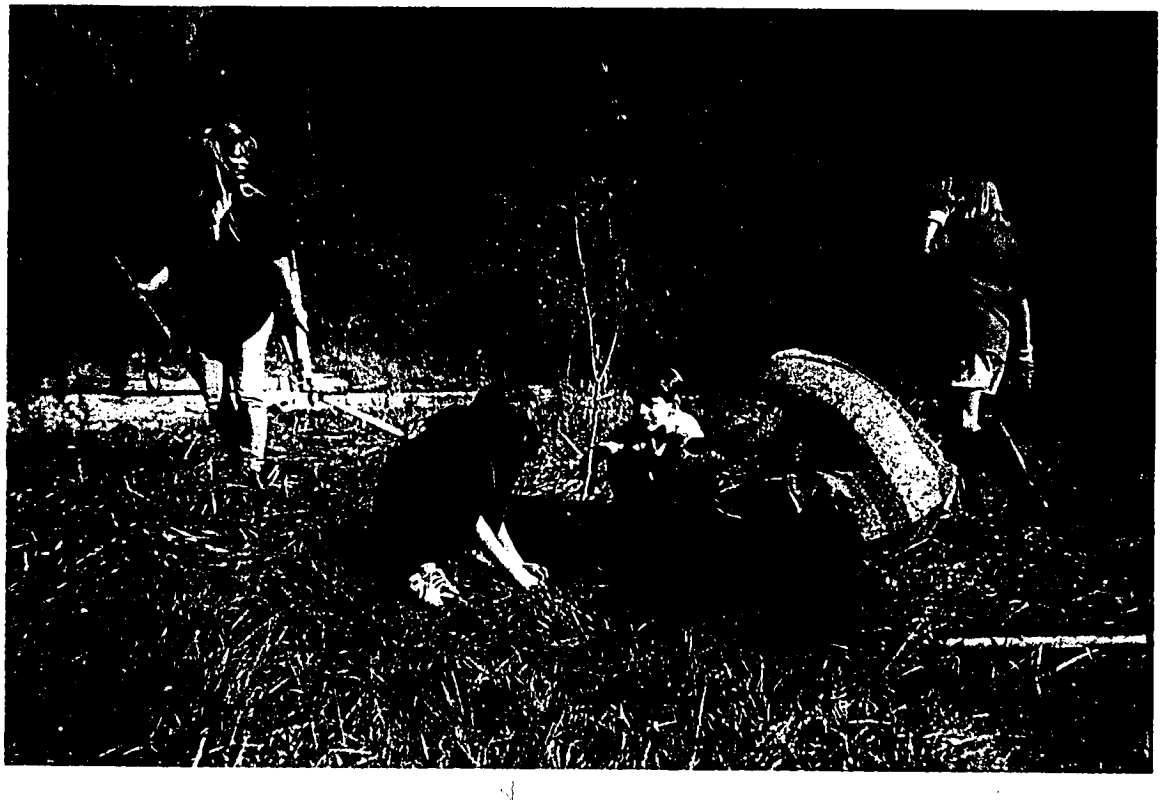
How we'll find them in the future.

We received lots of help...

From METRO

Friends of Trees

and students

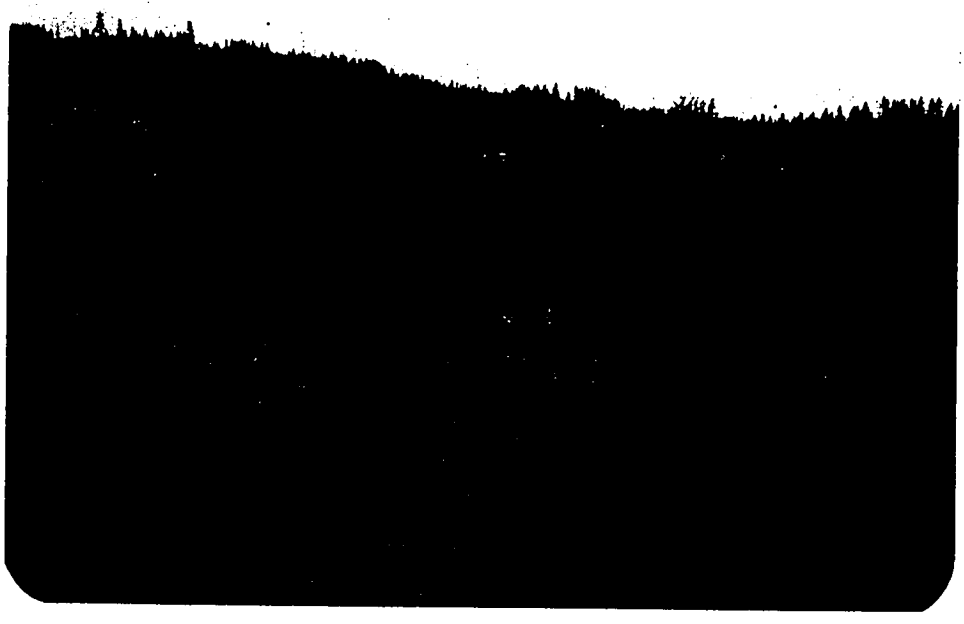


Installation of Basking Logs

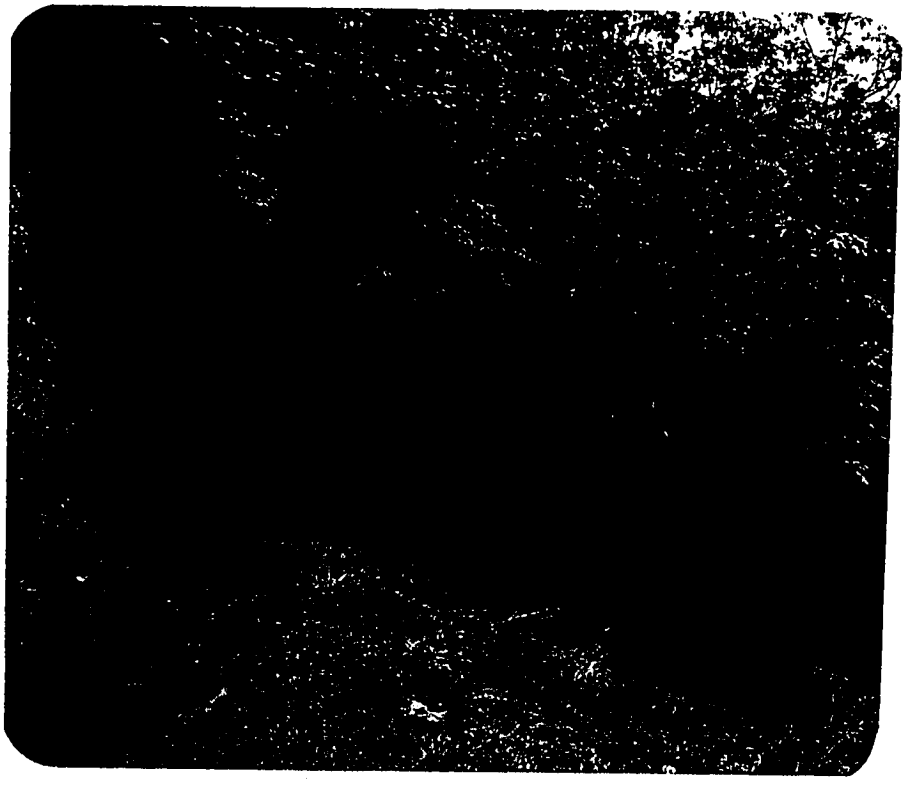
Installation of Basking Logs

Installation of a Storm Water Bioswale

The Projects Complete!
A Final Look at the New Houses Along the Access Path from the Top to the Bottom



Overlooking the Tualatin River Wetland Restoration Project Location



Trail leading down to the Restoration Area

The Two Big Oaks in the Meadow Become the Homes for a Squirrels, Screech Owls, & Wrens

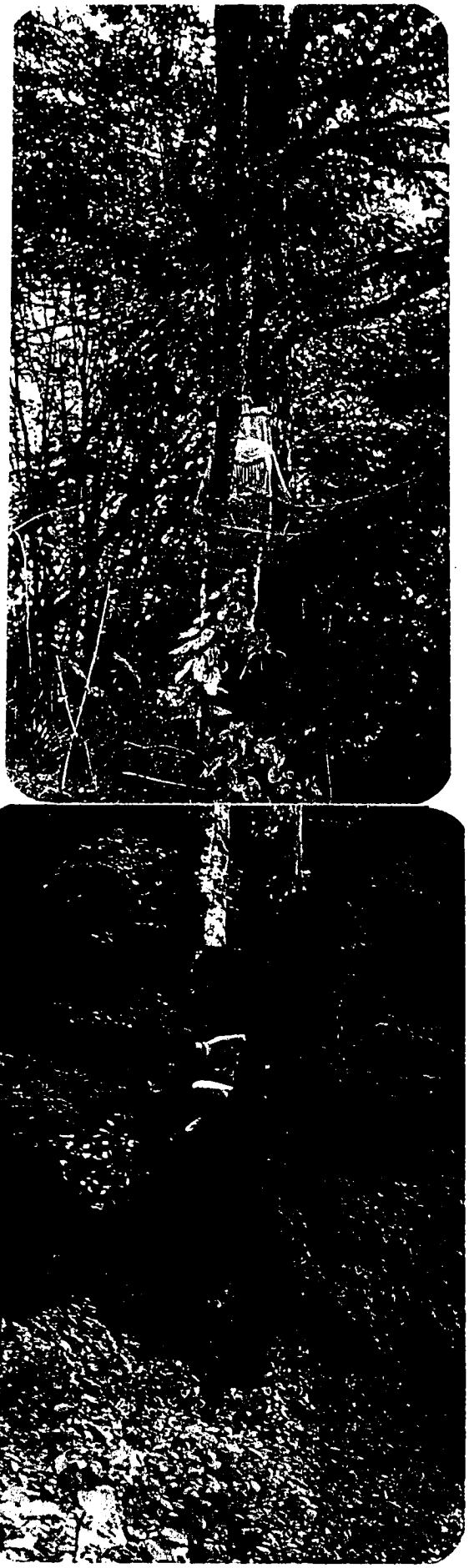
Matt Nielson installs the Squirrel house

Spencer Brown and Matt test their limb walking abilities. (Chickadee & Wren houses are in the background)

Steve Mills, West Linn Parks & Recreation Department, and his 2-year old daughter steady the ladder while Zane Brown puts up a Tree Swallow house.

Matt Nielsen steadies the ladder for Spencer Brown as he puts up a Tree Swallow hose on the banks of the river.

The larger Wood Duck and smaller Tree Swallow birdhouses are placed in trees along the bank of the Tualatin River.

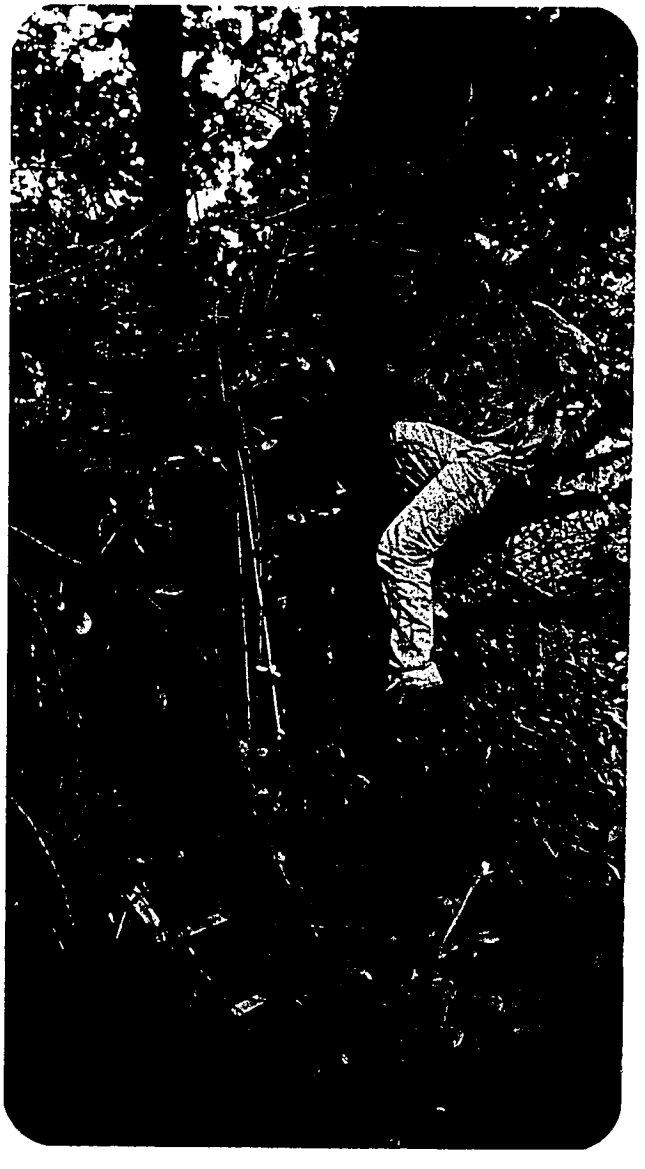


← **Zane Brown installs Wood Dick House**

Spencer Brown(right) and Spencer Scott (left) watch Matt Nielson install a Tree Swallow house

← **Spencer Brown finishes installing a Wood Duck house**

Spencer Scott watches Zane Brown install the Squirrel house. →

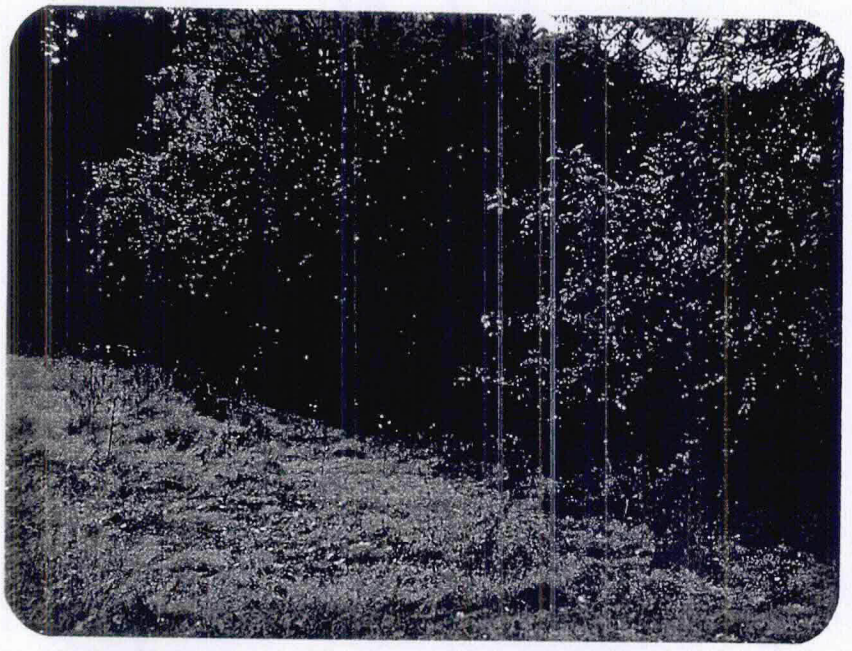


Spencer Brown looks for a way down after putting up the Squirrel house

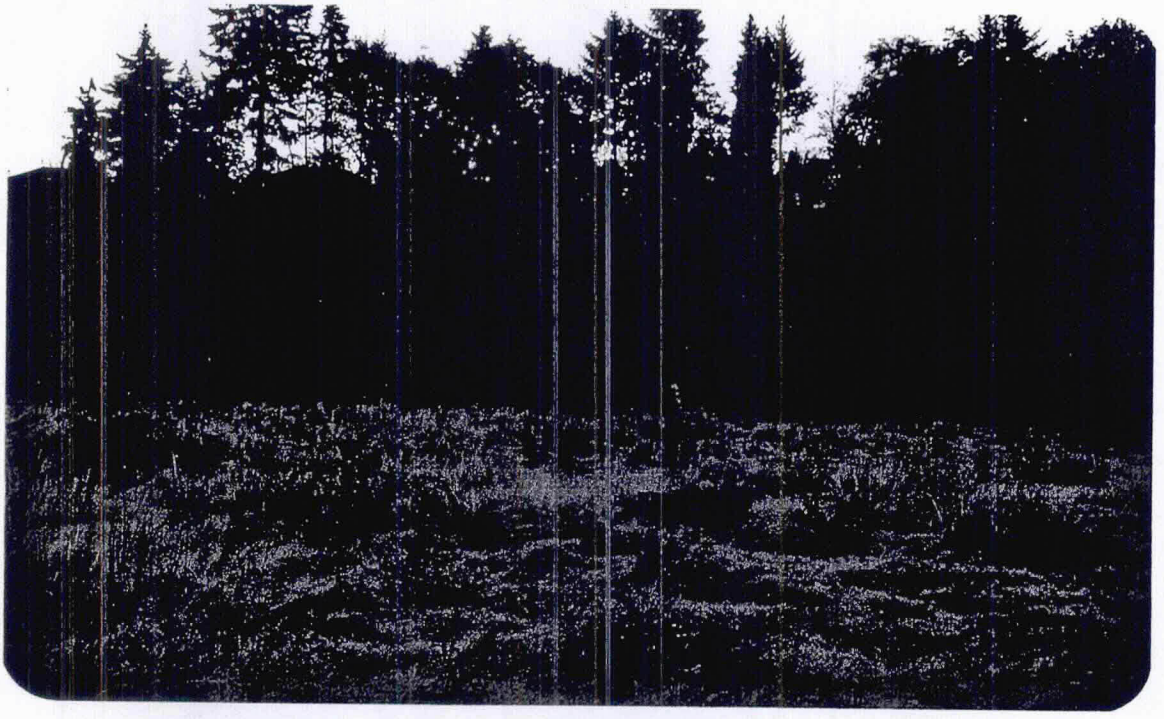
Zane watches Matt Nielsen install the last Screech Owl house →

Spencer installs the Screech Owl house while Matt looks on

Spencer Scott (left) & Zane Brown (right) watch Spencer and Matt finish putting up the Wren house



Trees along the banks of the Tualatin River in the wetland restoration area



Open area in the wetland restoration area. Note the bench from another Eagle Scout's Project