

**HABITAT RESTORATION PROJECT
FOR
HEDGES CREEK GREENWAY
1996-97**

FINAL REPORT

**PARKS AND RECREATION DEPARTMENT
CITY OF TUALATIN**

**PROJECT REPORT
HEDGES CREEK GREENWAY, TUALATIN
METROPOLITAN GREENSPACES PROGRAM
METRO CONTRACT #904689**

I. PROJECT DESCRIPTION:

The upper section of Hedges Creek Greenway involved in this grant proposal is located at the southern end of Tualatin between Hedges Drive and 105th Avenue. See Figure 1 - Vicinity Map. Single-family houses back up to the creek on both sides, except for the area adjacent to Ibach Park. Currently, the area is used by local residents, particularly children, as a place to walk and play. The creek and surrounding floodplain have been designated a "greenway" and are owned by the City of Tualatin.

Unfortunately, invasive non-native plants like blackberry and ivy are decreasing the plant diversity in the creek corridor which affects the area's value for wildlife habitat, creates erosion problems and diminishes the natural beauty of the creek corridor. Blackberry bushes are also making the area impassable. Undetained storm water is rapidly eroding the creek's banks, exposing pipes and impacting the water quality.

The objective of this project was to enhance the wildlife habitat, water quality, and aesthetics of the Hedges Creek Greenway by restoring the creek to a more natural state. Restoration of the greenway required removing the non-native plants, re-establishing native species, controlling non-native invasion in the future and stabilizing the stream banks. Figure 2 - Site Map - shows areas where removal and planting will occur.

Enhancement of this creek greenway had already begun with previous grants. A portion of the creek corridor had been cleared of blackberry and native plants established. Another project further downstream used bioengineering techniques to stabilize the slopes and prevent further erosion from occurring. This project continued the work that had already begun.

The general program was to hire a service group, such as the Wetlands Conservancy CRUE, to do the bulk of the exotic plant removal and native plant planting. A consultant was hired to draft a plan, order plants and supervise the service group. In addition, at least one volunteer planting day would be organized on a weekend.

II. GOALS AND BENEFITS OF PROJECT:

1. Restore the Hedges Creek Greenway to a more natural condition.
2. Enrich wildlife habitat through increasing plant species diversity.
3. Reduce soil erosion.
4. Improve water quality.
5. Encourage stewardship of the greenway by local residents.

III. WORK TASK AND TIMELINES:

<u>Task</u>	<u>Date</u>
General planning/coordination	July - August, 1996
Order native plants and other supplies	August 8-15
Newsletter article due	August 15
Contact schools	September 5 - 15
Mail Letters/other publicity	September 9 - 20
Order dumpster	September 12
Neighborhood work party	September 28: 9am - 12pm
C.R.U.E. removes non-natives	September 13, 16, 17, 20, 23
C.R.U.E. plants natives species	October 4, 7, 8, 14, 15
School class help plant	October 14, 15
Monitoring/maintenance	On-going

IV. PROJECT BUDGET:

Category/Item	Metro	Tualatin	Total	Actual Total
Personnel:				
Wetlands C.R.U.E. at				
\$350/day	\$5,250		\$5,250	\$4,500.00
Parks Staff		\$3,000	\$3,000	\$2,375.00
Volunteers		\$800	\$800	\$142.00
Materials & Supplies:				
Plants	\$3,000		\$3,000	\$2,306.68
Barkdust	\$200		\$200	\$0.00
Tools		\$300	\$300	\$282.70
Purchase of Water:	\$100		\$100	\$0.00
Supplemental planting	\$200		\$200	\$0.00
Publicity/Mailings		\$200	\$200	\$55.00
Rental Fees:				
Dumpster	\$200		\$200	\$159.75
Professional Services:				
Supervision of C.R.U.E.	\$450		\$450	\$450.00
Teaching community wksp	\$150		\$150	\$150.00
Identifying plant stock	\$50		\$50	\$60.00
Monitoring	\$400		\$400	
Other Local Match:				
Tualatin Valley Water Quality Grant		\$20,000	\$20,000	\$20,000.00
Total	\$10,000	\$24,300	\$34,300	\$30,481.13

TIME EXPENDED (HOURS)

Month	Project Mgr	Secretary	Volunteers
February	10		
March			
May			
April			
June	6		
July	10		
August	14		
September	28	4	30
October	8		
November	4		
December	8		
Total Hours	88	4	30

Salary	\$1,567.28	\$71.24	\$142.50
Benefits	\$705.28	\$32.06	N/A
Total costs	\$2,272.56	\$103.30	\$142.50

V. PROJECT STAFF/WORKERS/VOLUNTEERS:

Virginia Dodson was the project manager for the project. Bob Martin, Parks Maintenance Supervisor, assisted with some of the maintenance planning. George Musser, Parks Maintenance worker, supervised some of the volunteer plantings.

The Wetlands Conservancy CRUE was hired for 15 days to remove blackberry and plant the bare slopes. Kendra Smith, Kurahashi & Associates, was hired as a consultant to the project. She selected appropriate plants for the greenway, drafted a map of the site, and trained the CRUE students. In addition, she supervised the planting during the neighborhood work party.

Volunteers were recruited for a Saturday work party. Six people showed up. Because more plants needed to get into the ground, student volunteers were recruited to plant the remaining plants. A total of three students planted for two hours for a total of six hours.

A class of sixth grade students were scheduled to help CRUE on one of the planting days. However, due to the inclement weather the class canceled its involvement. It was not possible to reschedule as CRUE was already committed to specific dates.

VI. HOW PROJECT RELATES TO THE GREENSPACES PROGRAM:

This project is consistent with the objectives of the restoration and enhancement grants program. Hedges Creek is a prime example of a degraded urban stream. Restoration

work on this stream can be used as a model. The exotic removal and plantings in the greenway will be seen by neighbors and other residents who walk through the area. Many people have commented positively on the improvements that have occurred.

The grant enabled the Parks and Recreation Department to continue a project which would not have been funded with City general funds. The Department was pleased to be able to hire a youth group to provide them with opportunities to learn and work. This creek project offered volunteer opportunities for citizens as well.

VII. WHAT WORKED/WHAT DIDN'T/HELPFUL HINTS:

Blackberry removal is getting to be quite routine. The CRUE was instructed to haul away blackberry debris that was near the road or trail. In areas further from the road, they were instructed to leave the debris in piles to decompose and then raked out at later date. Problems can occur when the slopes are steep and the debris gets in the way of future work.

Water was not an issue this time. The plants were installed in October and the rains arrived around the same time. The plants should be well established by next summer.

The consultant had expected that a larger section of blackberries would be removed. This is partially a result of not being able to gauge how long it takes to remove a section of blackberry by hand. But also due to the high variability of each service group, their work habits and abilities. Good leadership and adequate supervision and direction is also a key to success of these groups. Increased staff or consultant time for supervision is necessary to ensure a good product.

The volunteer turn-out was disappointing. More time and energy from staff or the consultant would likely have resulted in a larger volunteer contingent.

VIII. ADVICE FOR OTHER PROJECT MANAGERS:

Be careful when and where you decide to remove blackberry. The CRUE did a beautiful job of removing blackberry on a steep slope adjacent to a creek. The neighbors also liked the improved view until the neighborhood kids started sliding down the bank. This has caused some bank erosion and discomfort for the neighbor when the kids can't get back up the slope and either trespass across the neighbors property or the neighbor has to rescue the kids. We have placed a temporary wire fence to protect the slopes until the new plants can grow.

Have a really good working base map and vicinity map for the project. They are very useful for displays, flyers, meetings, and recording work progress. Sounds obvious, but stream maps are hard to come by.

Hydrology, hydrology, hydrology. The severe storms and heavy rainfall experienced in the area have caused considerable erosion, due to the "flashy" nature of many urban streams. . If possible try to understanding the dynamics of the stream prior to planting

along banks which may erode before the plants can get rooted. Ideally, the entire basin is considered and long term fixes initiated before plantings occur.

IX. MONITORING AND MAINTENANCE PLAN:

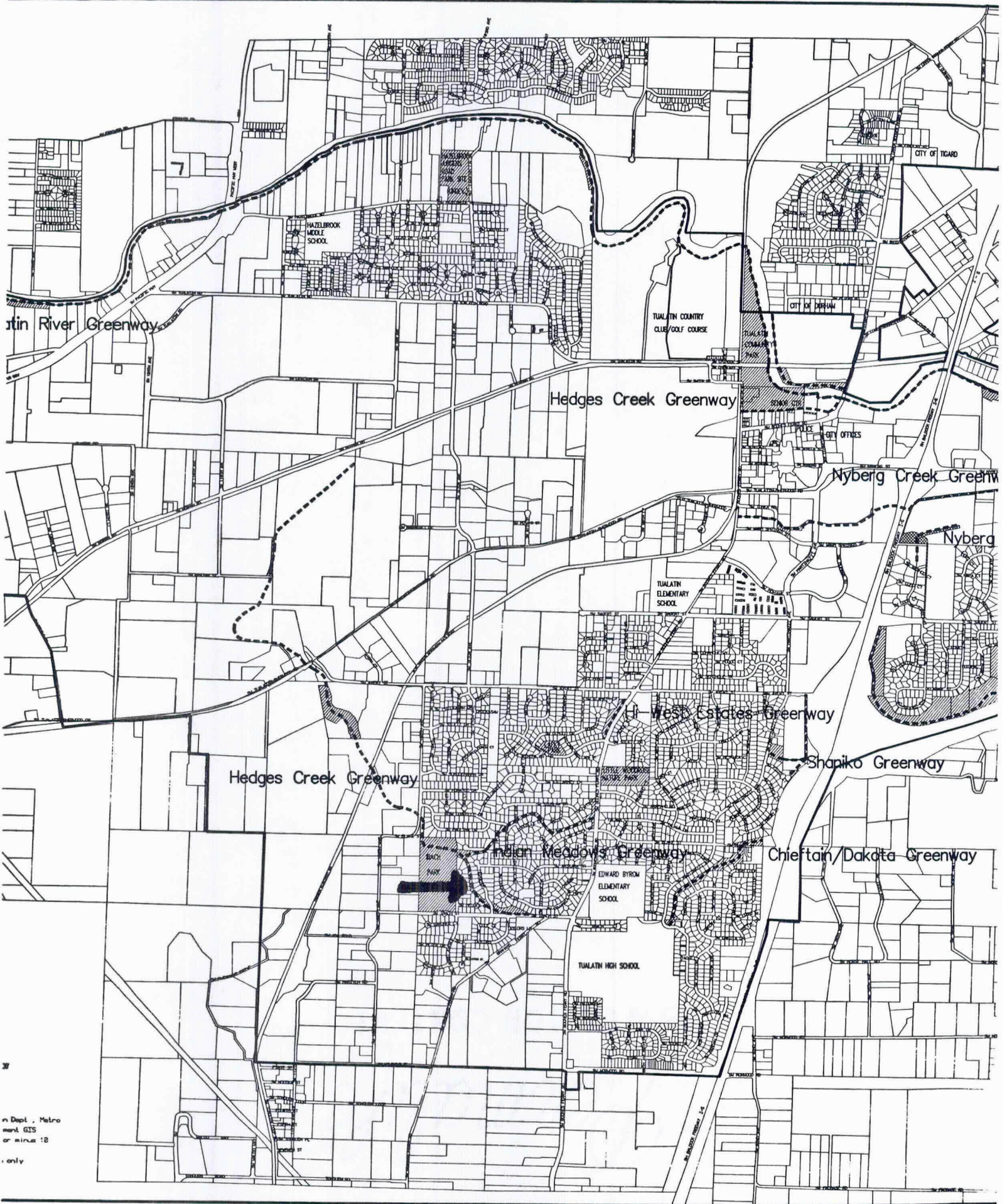
The Parks maintenance crew will spend approximately one hour a week in the greenway for general maintenance and monitoring. A trail is scheduled to be built within the greenway during the summer of 1997 to improve access through the site. The path will change some of the maintenance needs for the site. Following is the current maintenance task matrix for the Hedges Creek Greenway.

Task	Daily	Weekly	Monthly	Yearly	As required	Comments
Mow					X	Grass pathway, until path built
Weed control			X			Remove non-native
Leaf removal						
Tree pruning					X	Only adjacent to path
Shrub pruning					X	
Litter pick-up		X				
Erosion inspection			X			
Add chips/gravel				X		Once path built
Plantings					X	Replace dead shrubs
Clear debris in stream					X	
Water plants					X	During initial installation

To supplement the limited amount of staff time, the Hedges Creek Greenway has been "adopted" by the People for the Planet, a high school environmental group. They will also walk the site monthly to pick up litter and report any problems with bank erosion, water quality or plant health. Hopefully, they can be trained to do plant survival monitoring.

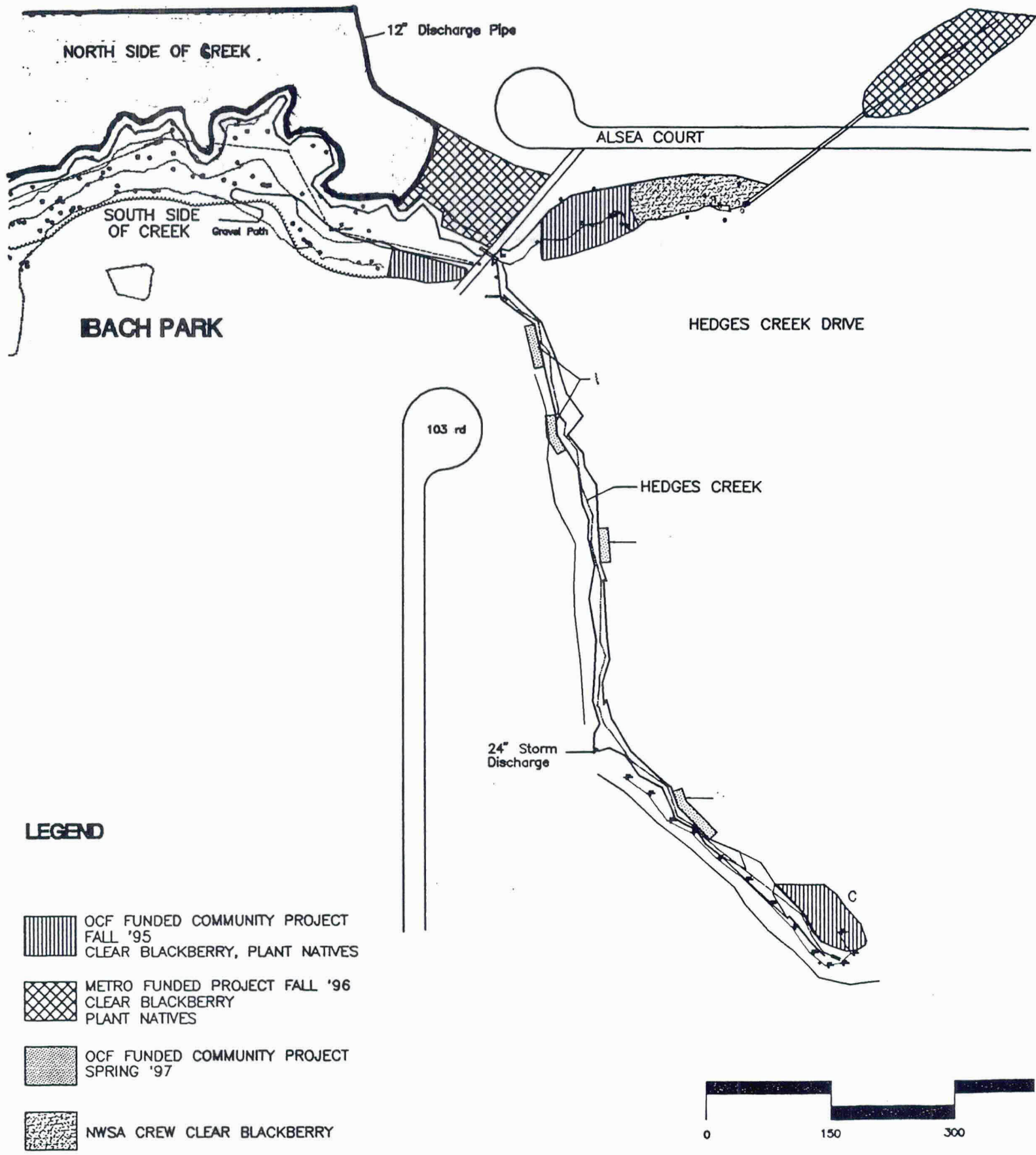
The Parks and Recreation Department has received another grant for the Hedges Creek Greenway to stabilize banks and remove blackberry. Another component of the grant is to set up a systematic plant survival monitoring program.

Figure 3 shows the photo points for Hedges Creek Greenway. Please note that only photo points #2, 3, and 4 are part of this Metro funded project. Other photo points relate to other projects. I have, therefore, only included photos from these three points.







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 only

FIGURE 1 - VICINITY MAP



LEGEND

- 
 OCF FUNDED COMMUNITY PROJECT
 FALL '95
 CLEAR BLACKBERRY, PLANT NATIVES
- 
 METRO FUNDED PROJECT FALL '96
 CLEAR BLACKBERRY
 PLANT NATIVES
- 
 OCF FUNDED COMMUNITY PROJECT
 SPRING '97
- 
 NWSA CREW CLEAR BLACKBERRY

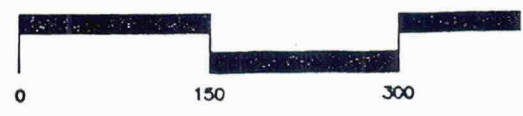


FIGURE 2 - SITE MAP

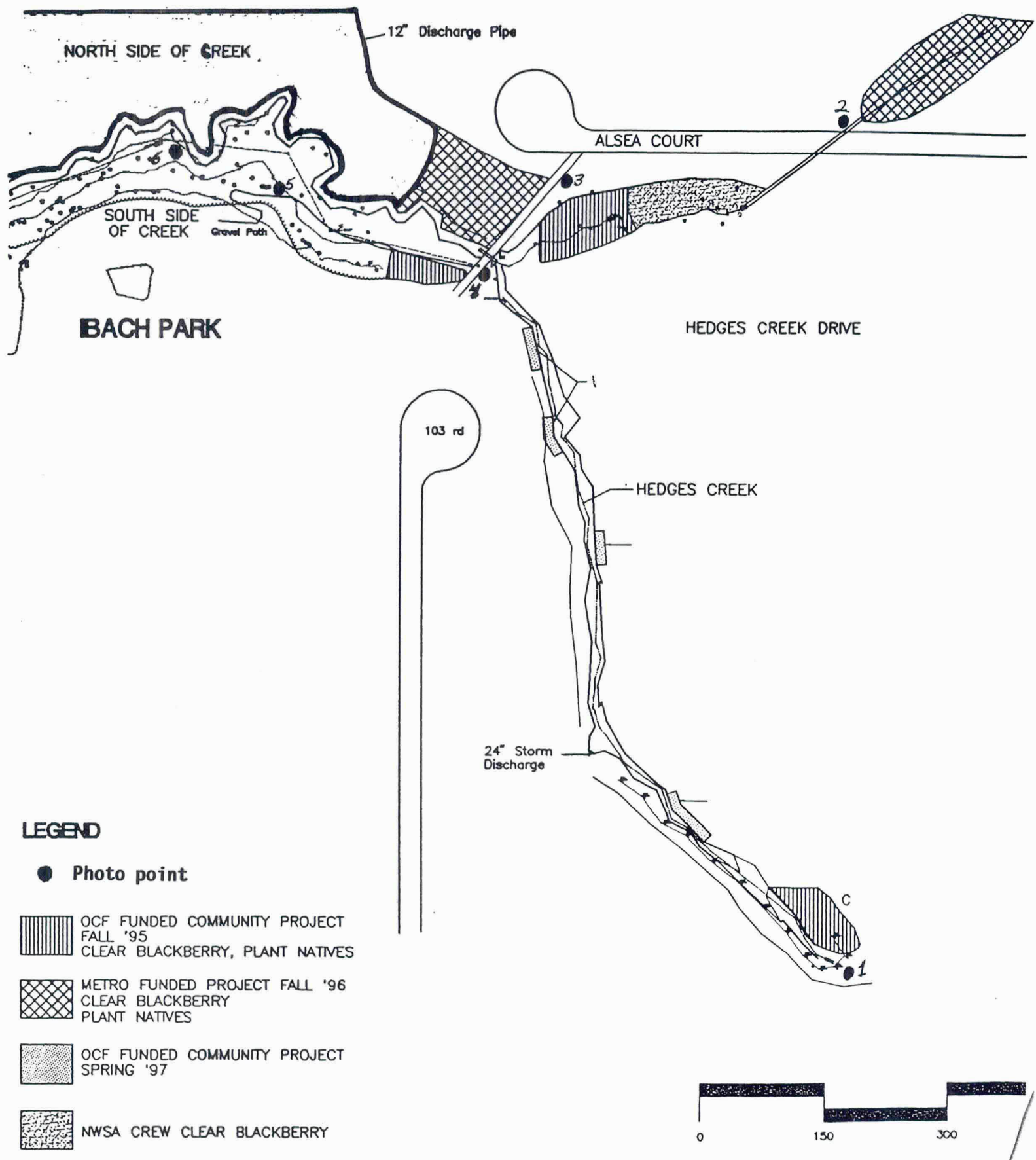


FIGURE - 3 PHOTO POINTS