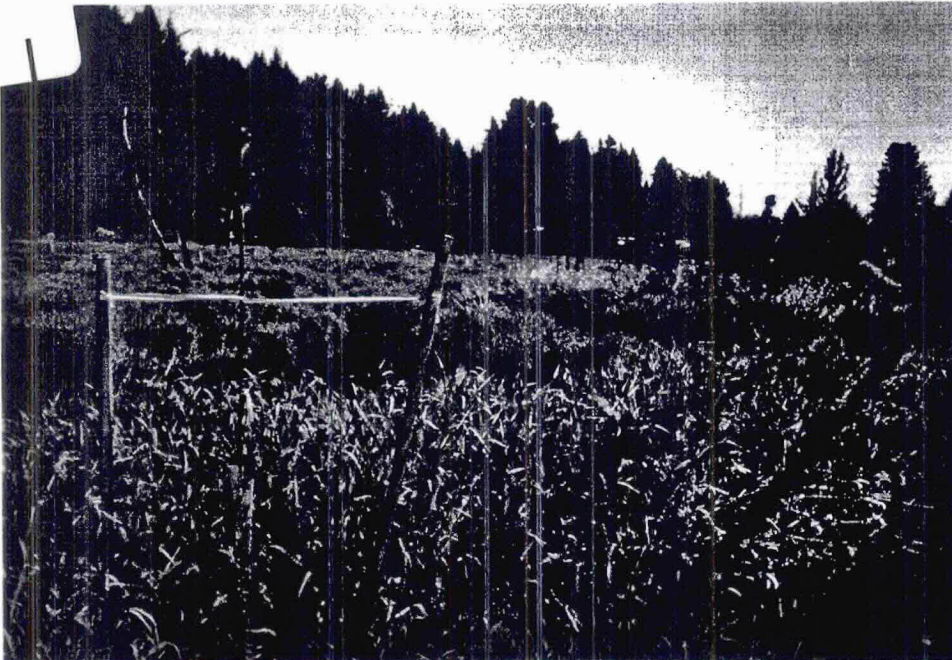


9042427

# BURNT BRIDGE CREEK STREAM BANK RESTORATION PROJECT

CITY OF VANCOUVER  
VANCOUVER WA

PLANTING YEAR January 1, 1994 through March 31, 1995  
Tract Number 903567

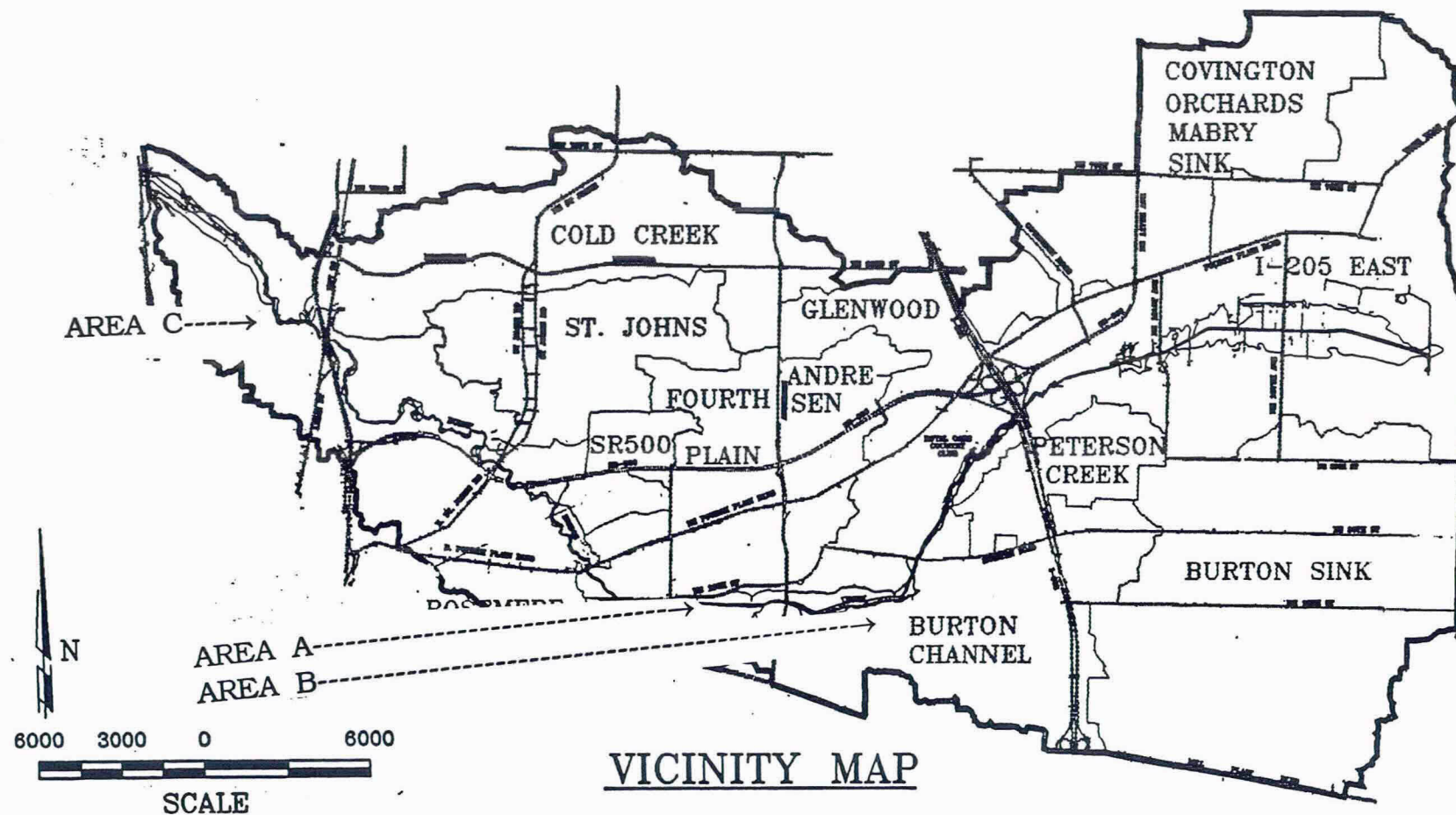


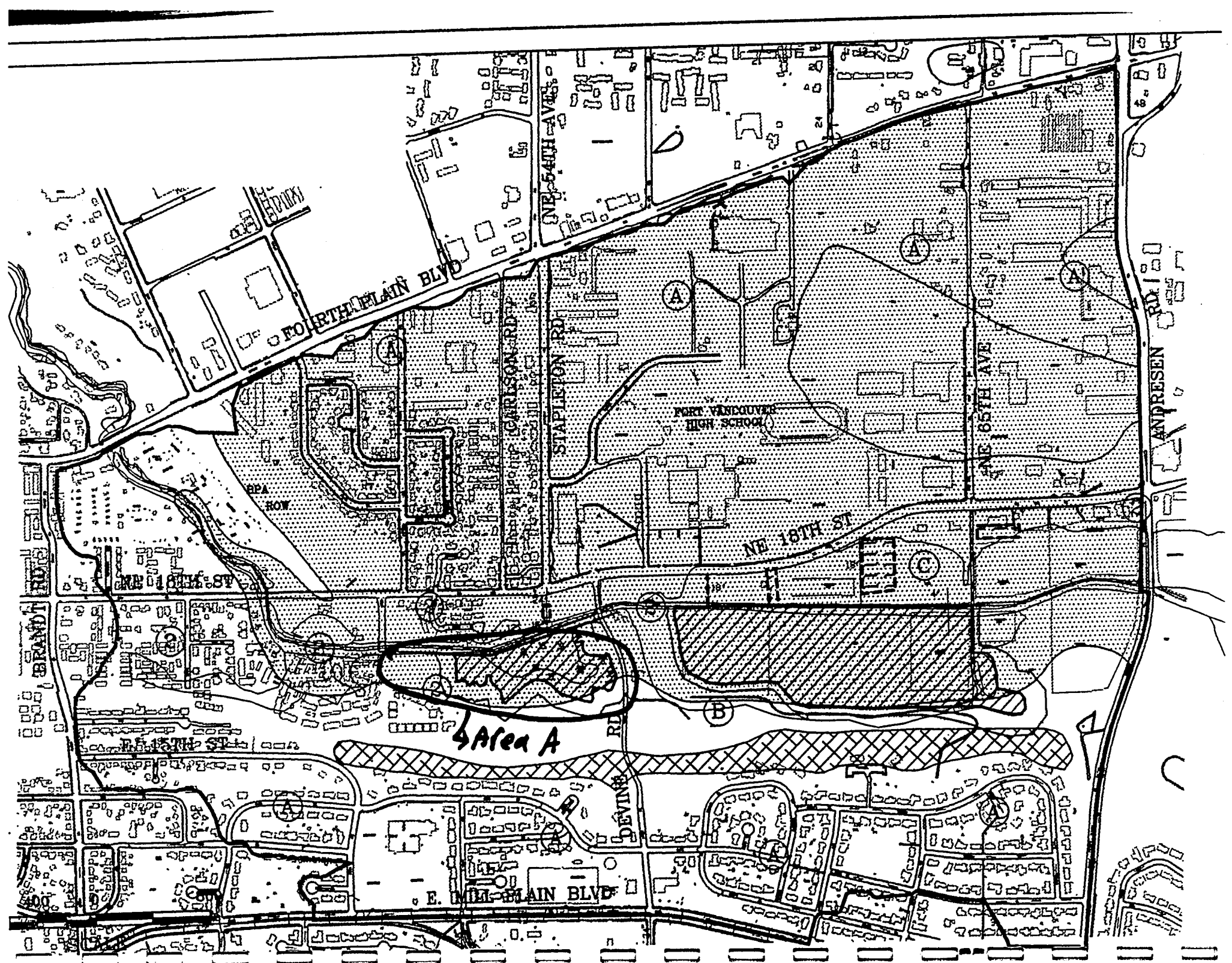
FINAL REPORT WRITTEN BY  
PHIL OAKS

Burnt Creek  
Bridge 94-95

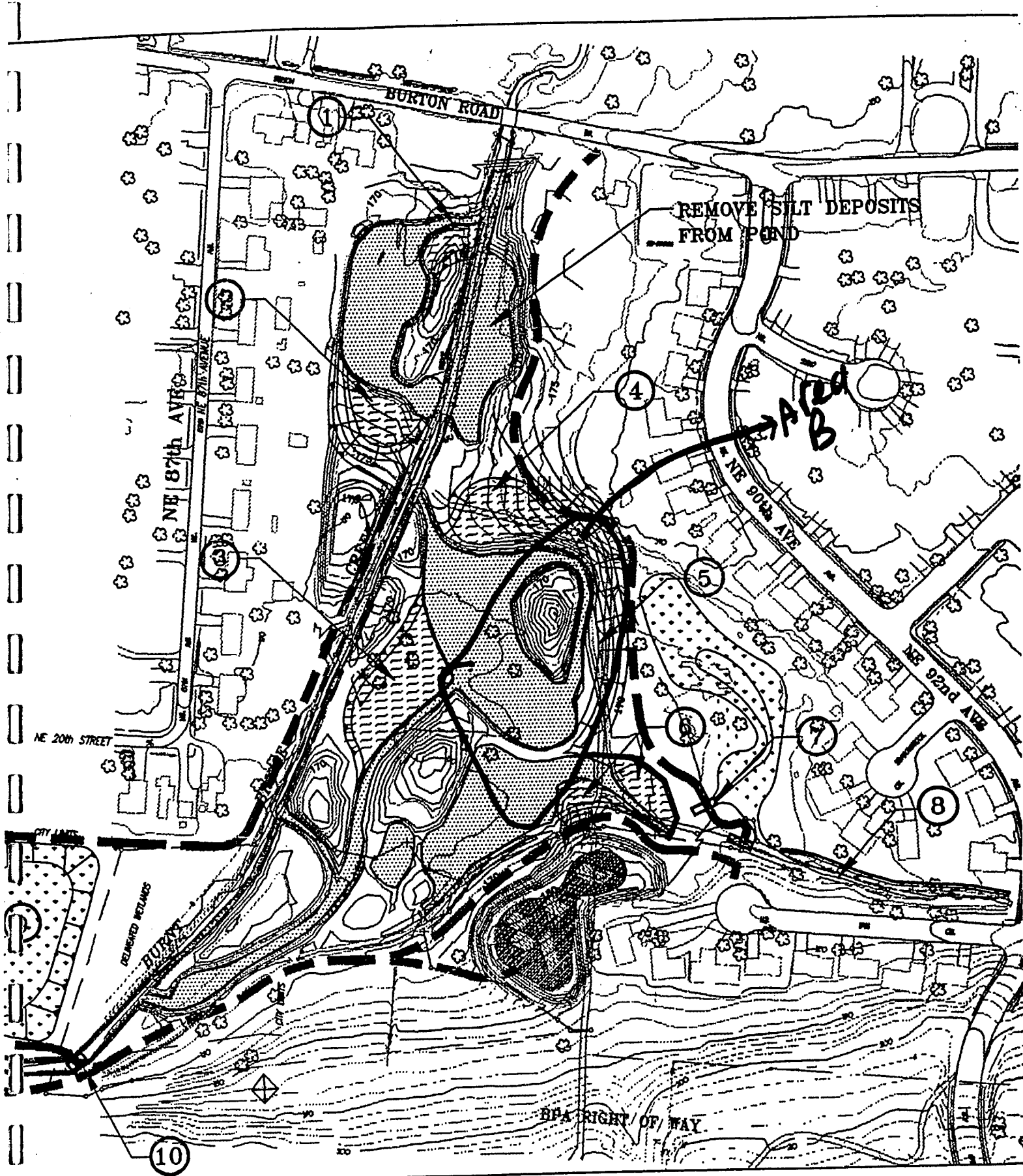
City of Vancouver

# BURNT BRIDGE CREEK WATERSHED PLAN



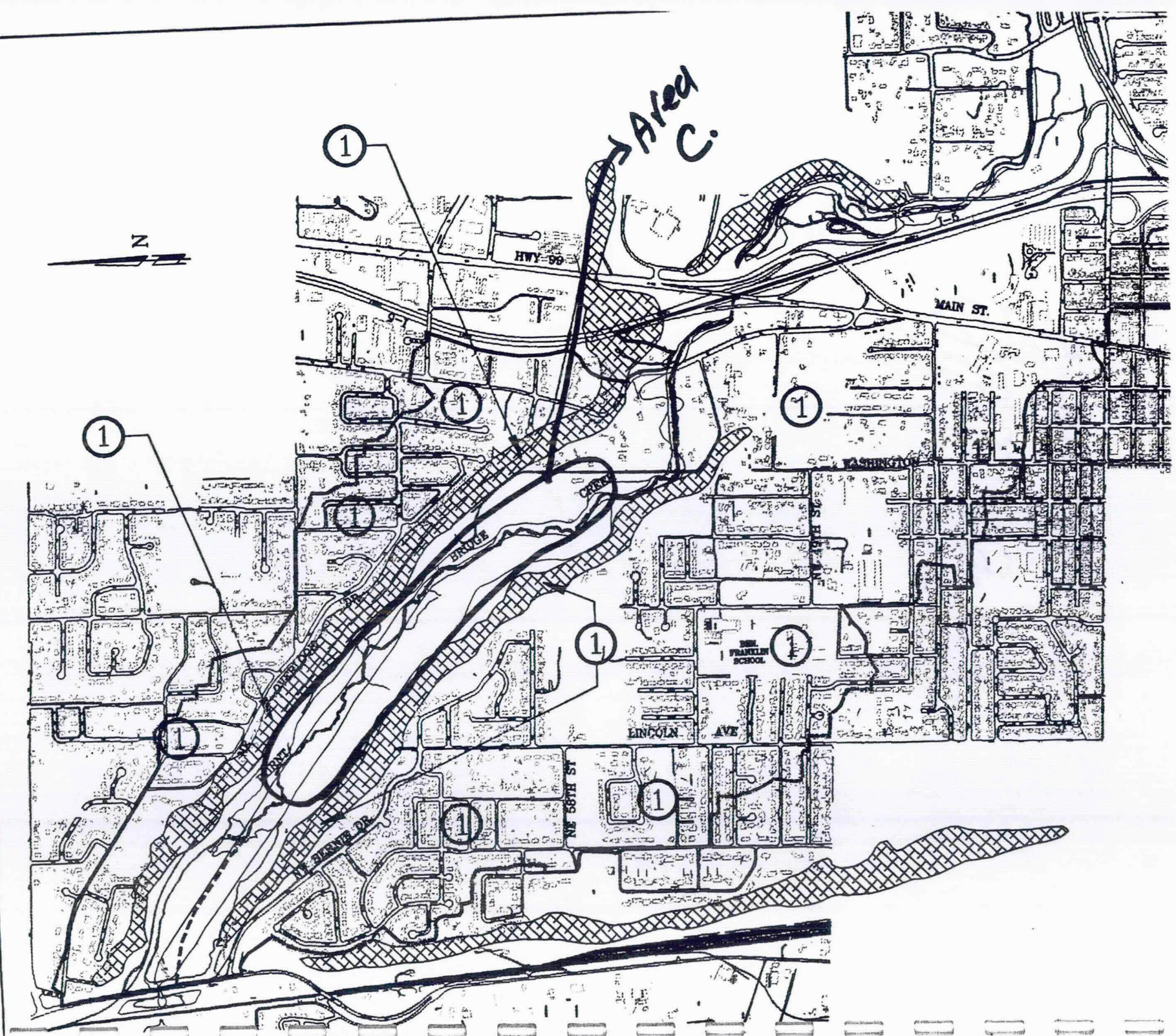






NO.	BY	DATE	REVISION	CHK
1				DRAW
2				CHK
3				APP





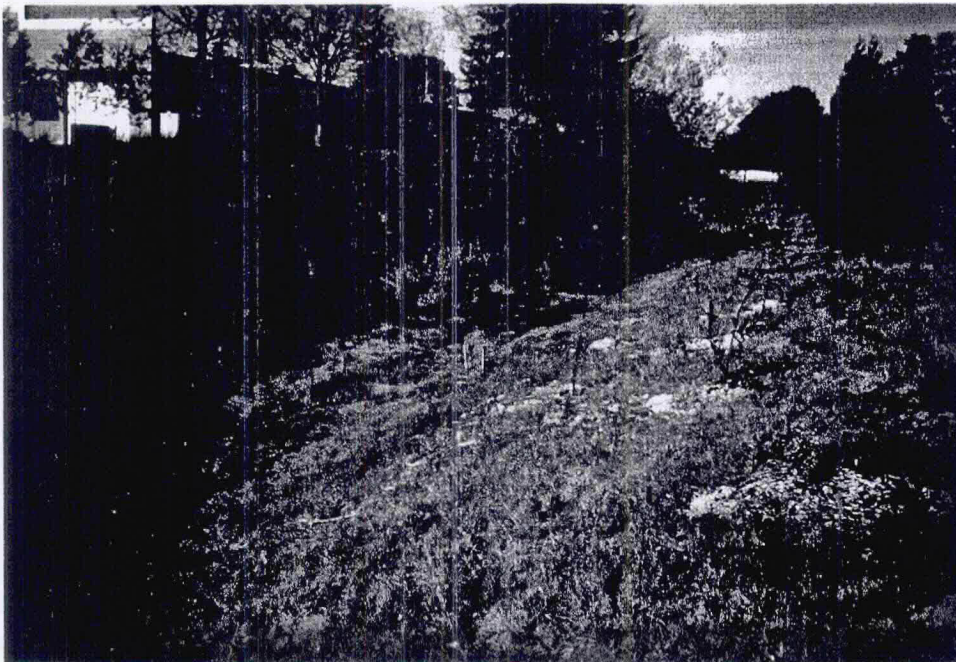


AREA 'A'

DEVINE ROAD TO THUNDERBIRD VILLAGE



WEST END LOOKING EAST - 50 FOOT SECTION NOT PLANTED.



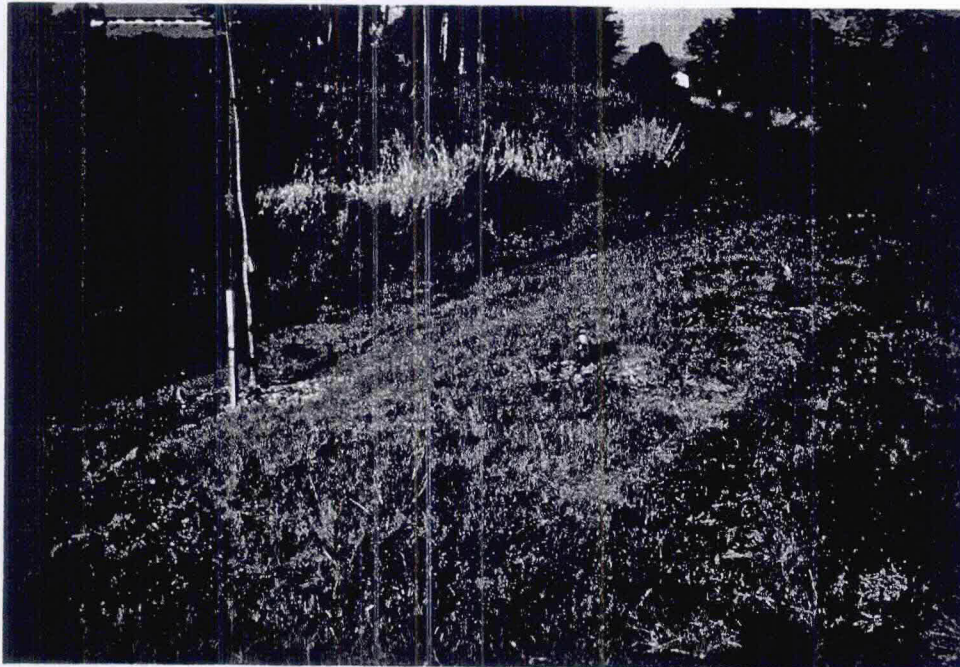
EAST END OF PROJECT. PLANTED WITH DOGWOODS, HARD HACK AND ELDERBERRY.



AREA 'A'



RED OSIER DOGWOOD



TRANSPLANTED 12' MOUNTAIN ASH



AREA 'A'



CENTRAL PROJECT PLANTED WITH HARD HACK, DOGWOODS AND DOUGLAS FIRS.



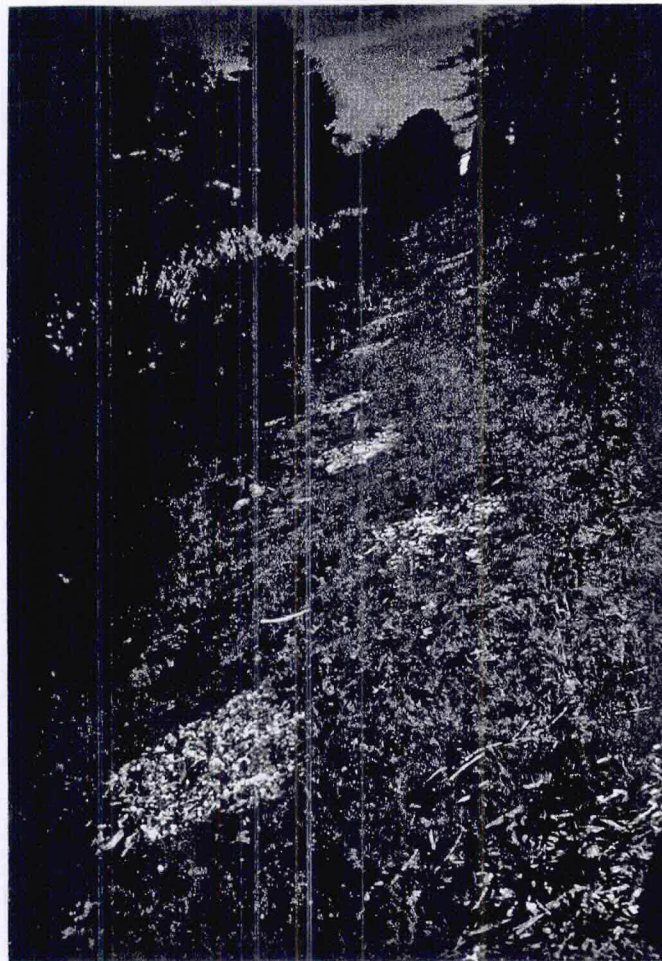
RED OSIER DOGWOOD



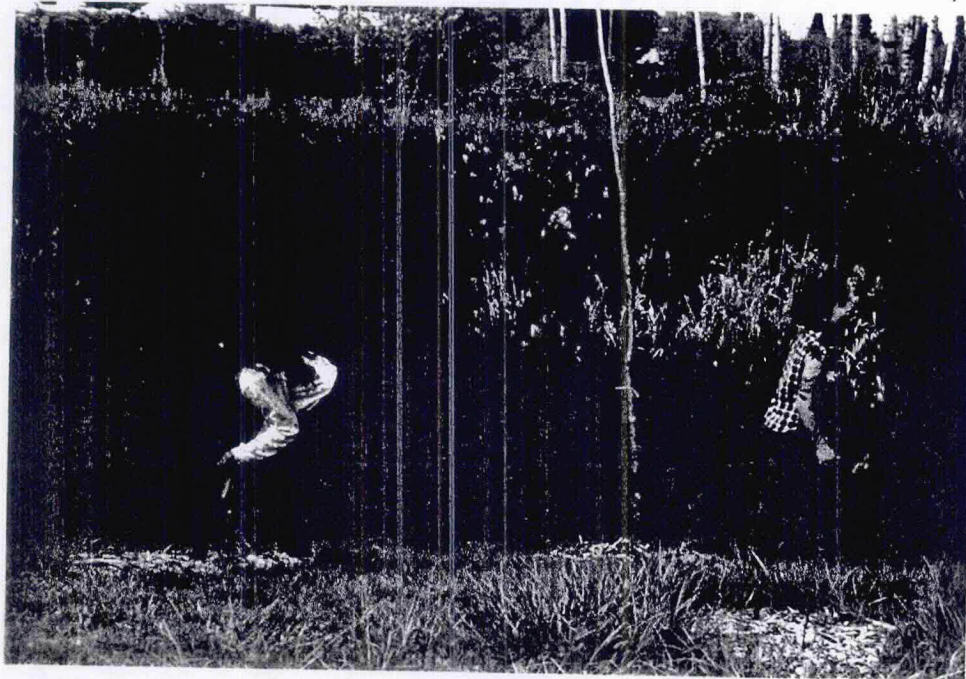
AREA 'A'



DOGWOODS, ELDERBERRY, ALDER, AND CURRANT



AREA 'A'

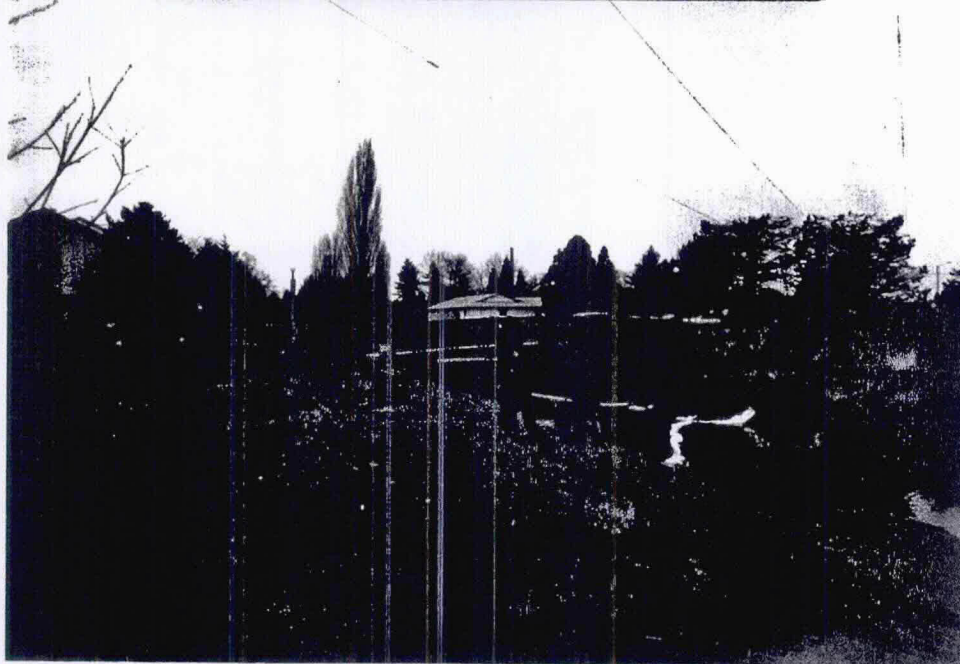
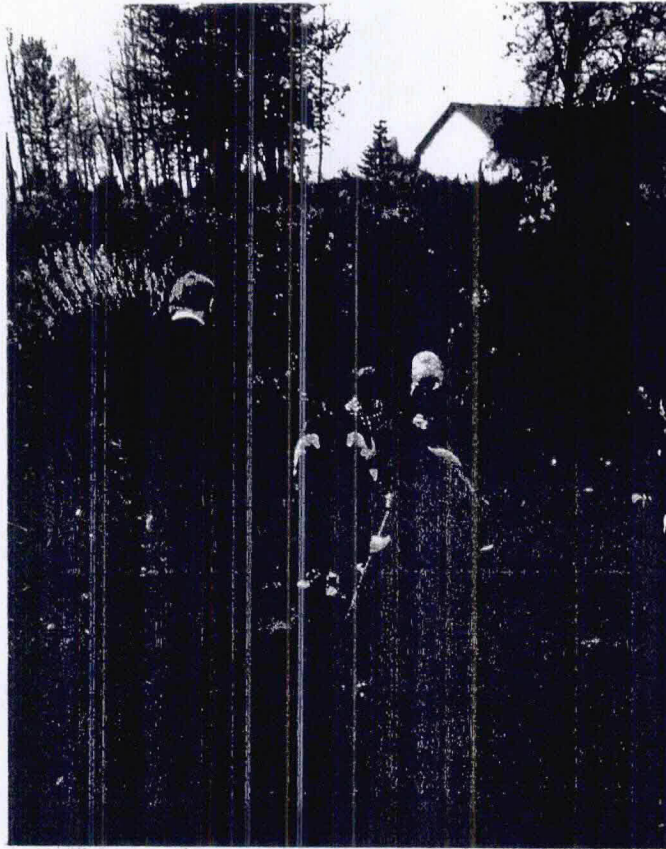


CEDAR TREE PLANTING WITH DAVE IRWIN'S  
4TH GRADE CLASS (MARTIN LUTHER KING ELEM.)  
AND VANCOUVER SERVICE CORPS.



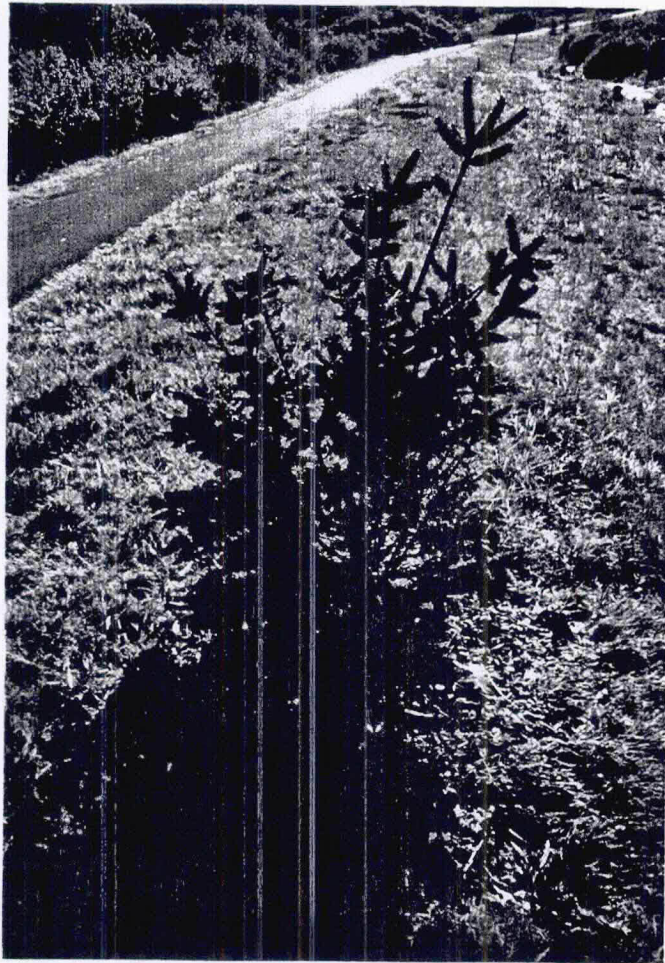


AREA 'A'

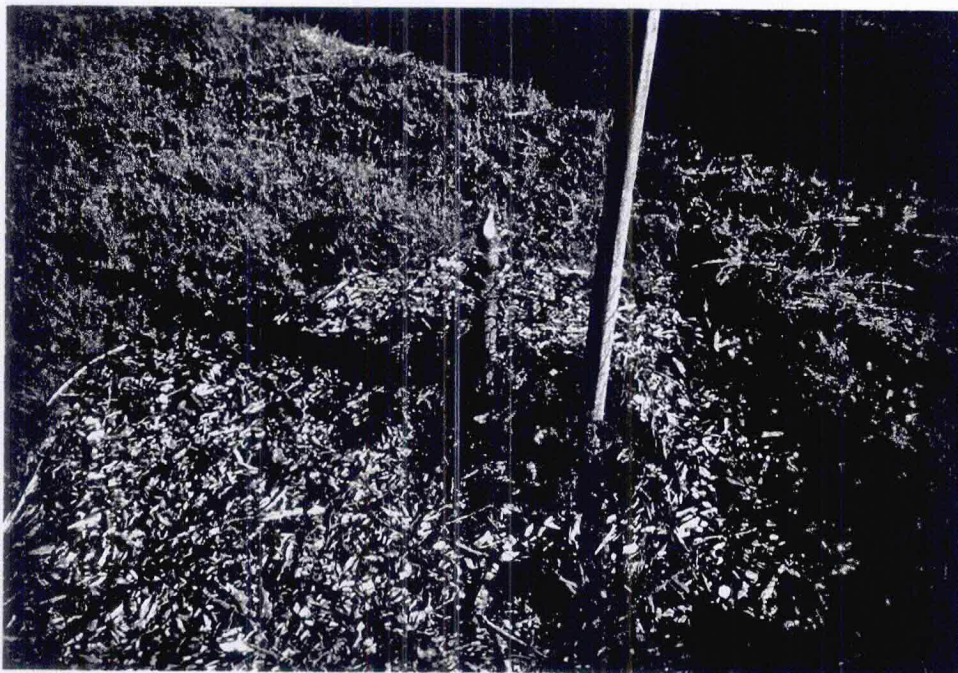


WEST END OF PROJECT : CURRANT, HARD HACK, WESTERN CEDAR AND ELDERBERRY.

AREA 'A'



BEAVER DAMAGE

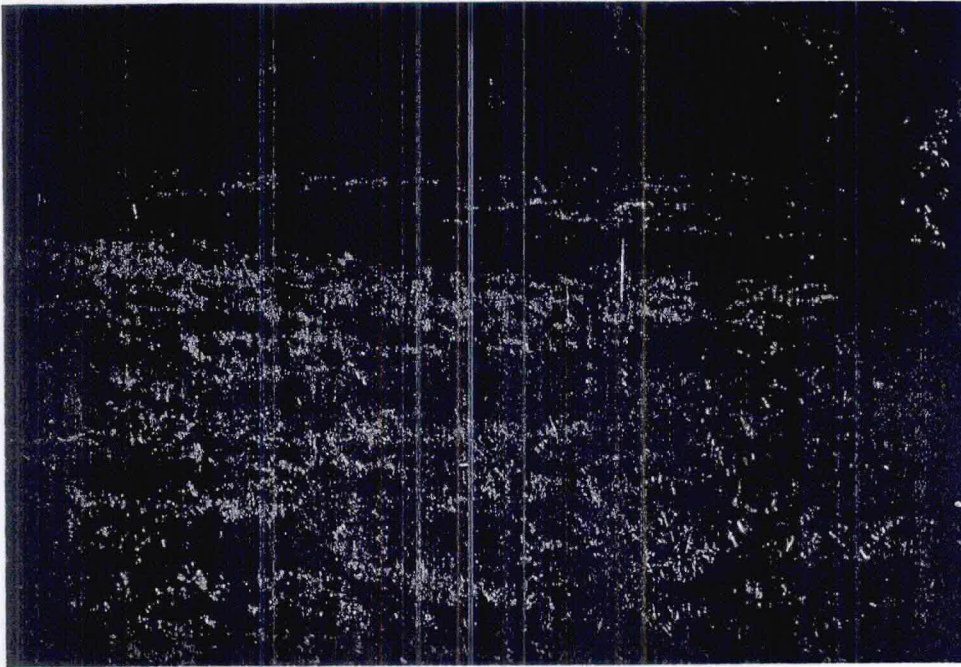


BEAVER DAMAGE . NOTICE CHICKEN WIRE AROUND BOTTOM OF STUMP.

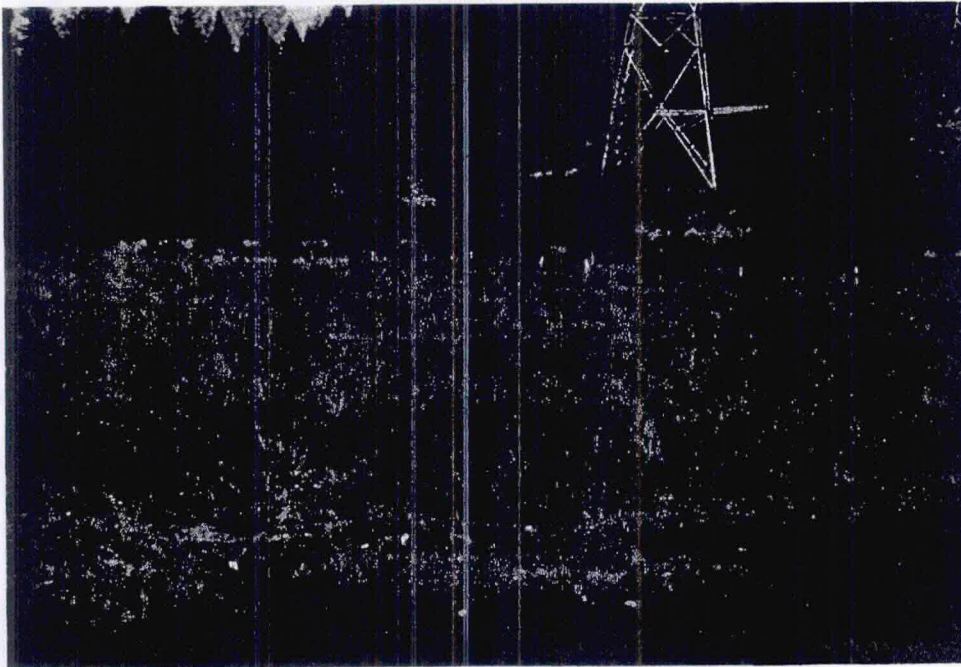


## AREA 'B'

### 82ND AVENUE PLANTING



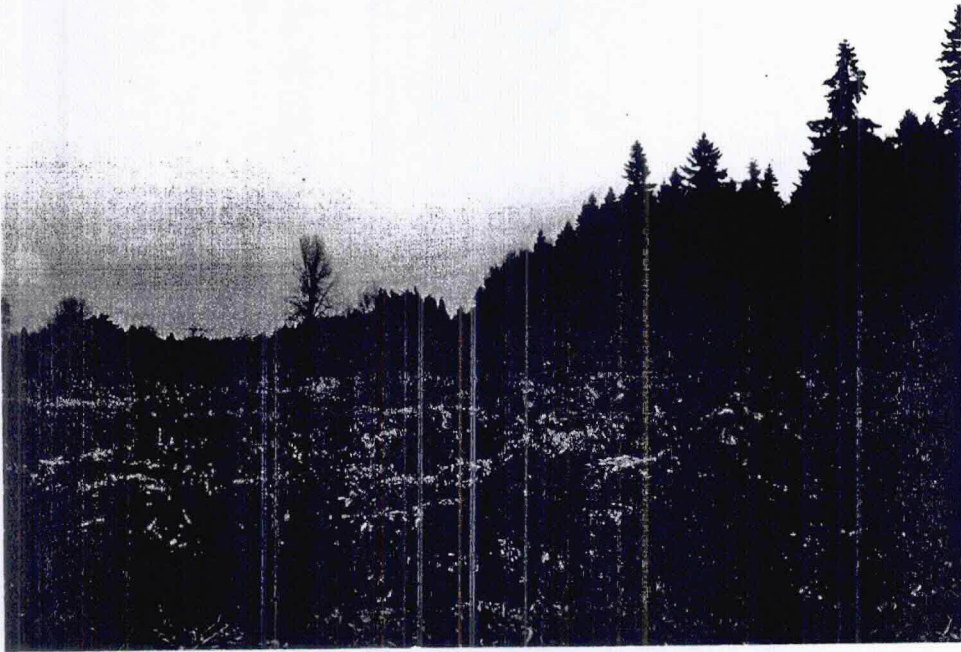
PLANTINGS BY METRO GRANT AND CITY OF VANCOUVER DRAINAGE PROGRAM



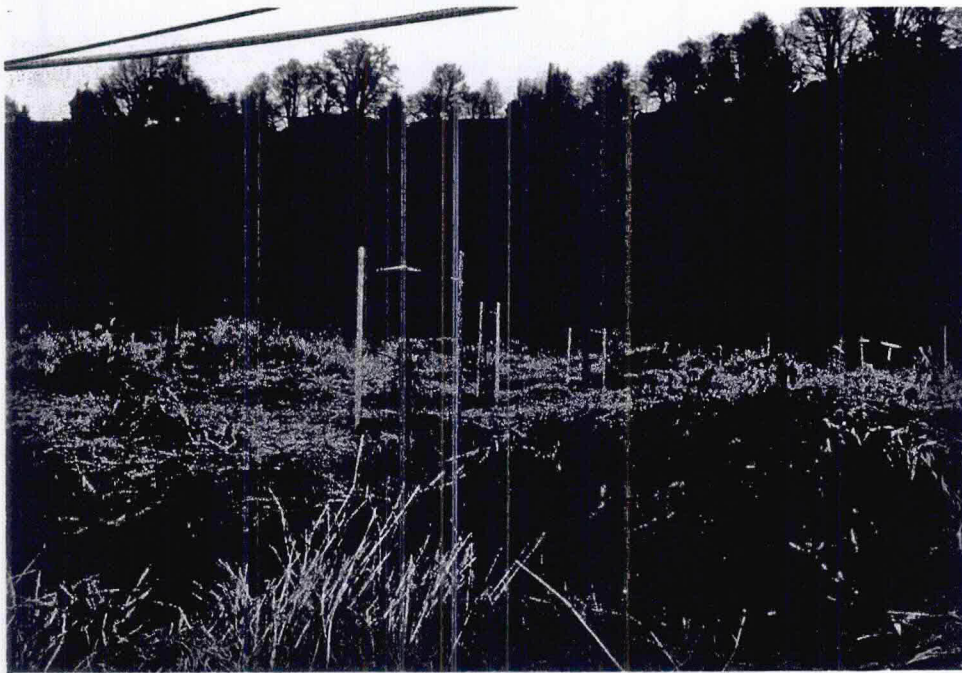


AREA 'C'

MOUTH OF BURNT BRIDGE CREEK

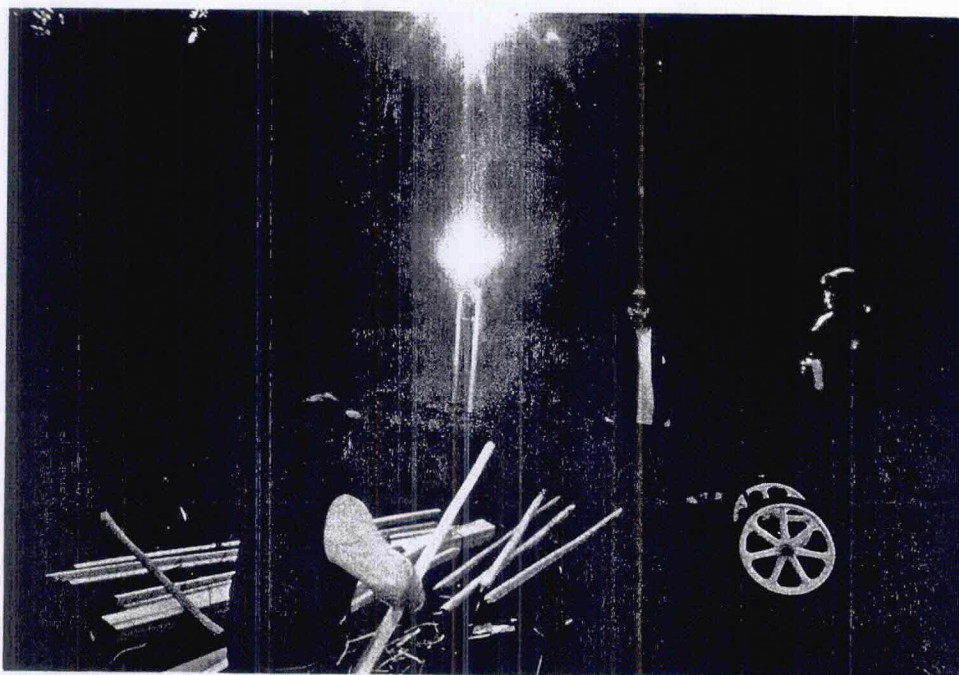


SITE BEFORE ASH. PLANTINGS TOOK PLACE

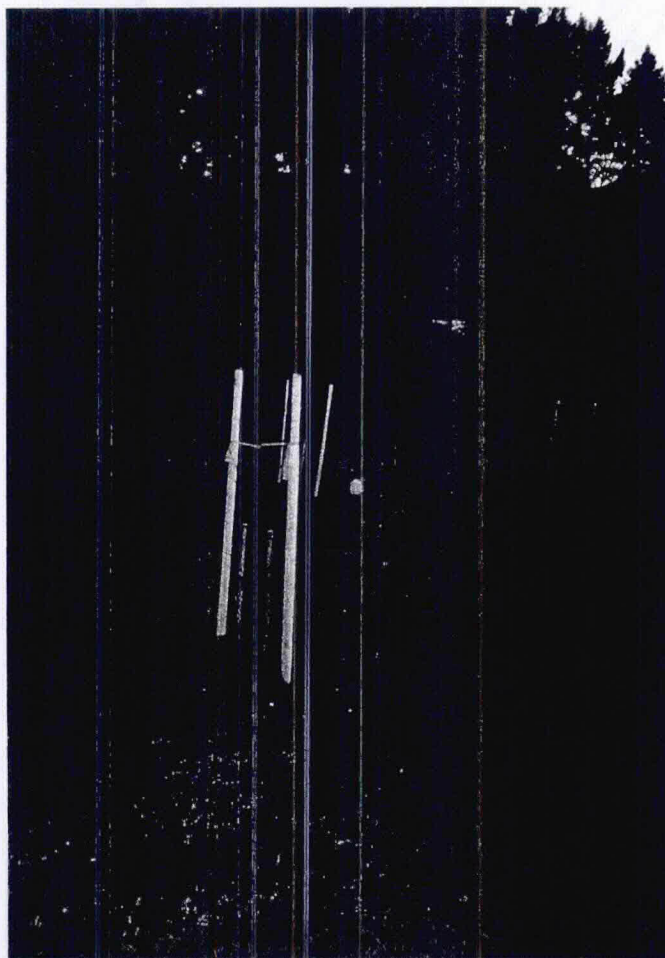


SIX FOOT TALL OREGON ASH (*FRAXINUS LATIFOLIA*) PLANTED AMONGST REED CANARY GRASS

AREA 'C'



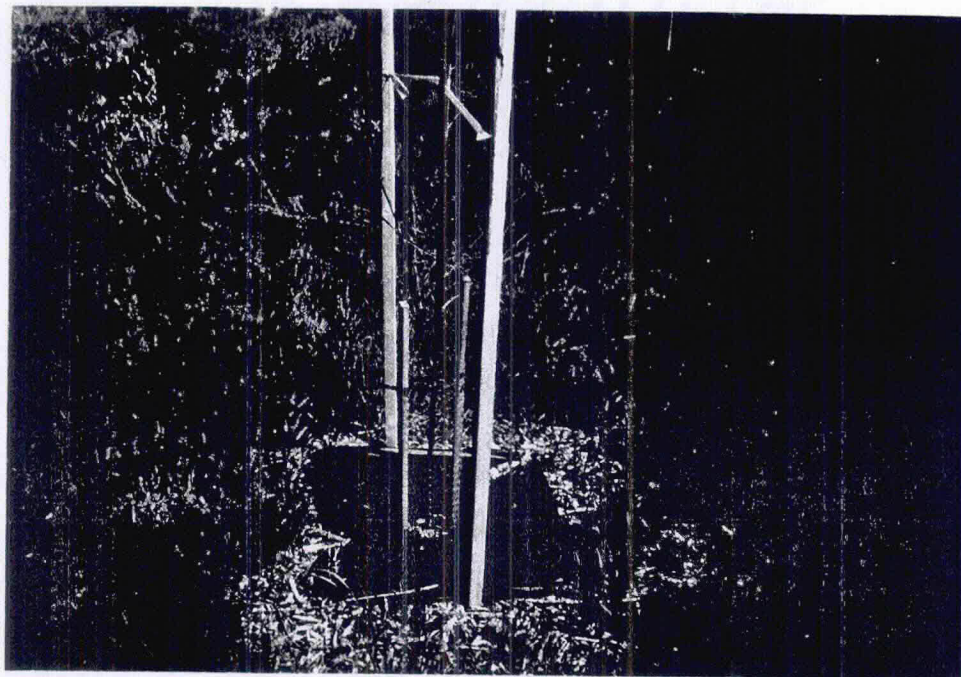
AMERICORPS CREW PREPARING STAKES AND FABRIC



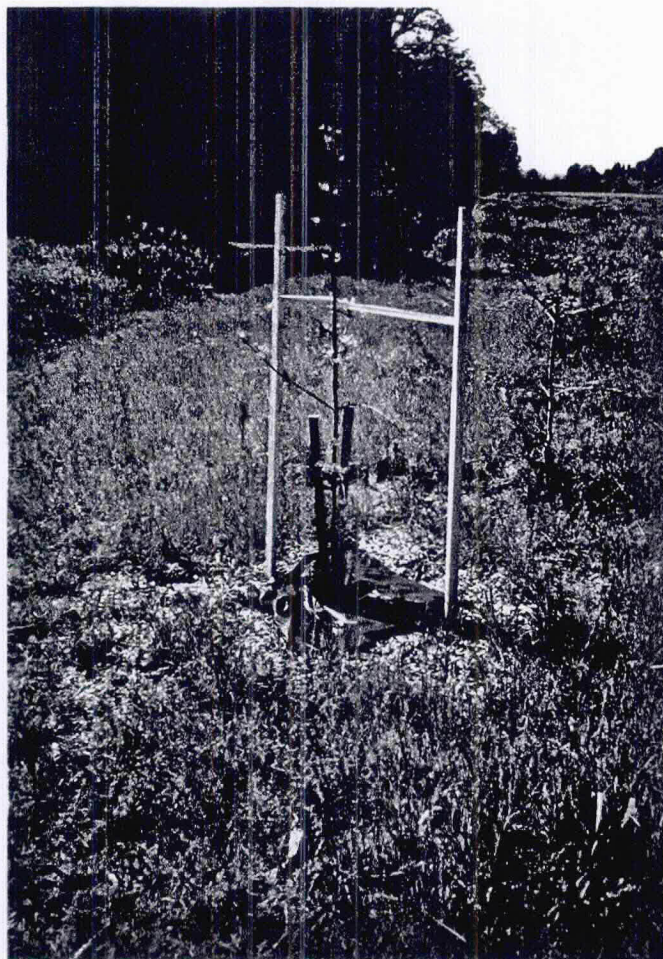
SAMPLE PLANTING WITH CHIPS, FEBRUARY 20, 1997



AREA 'C'



APRIL, 1997





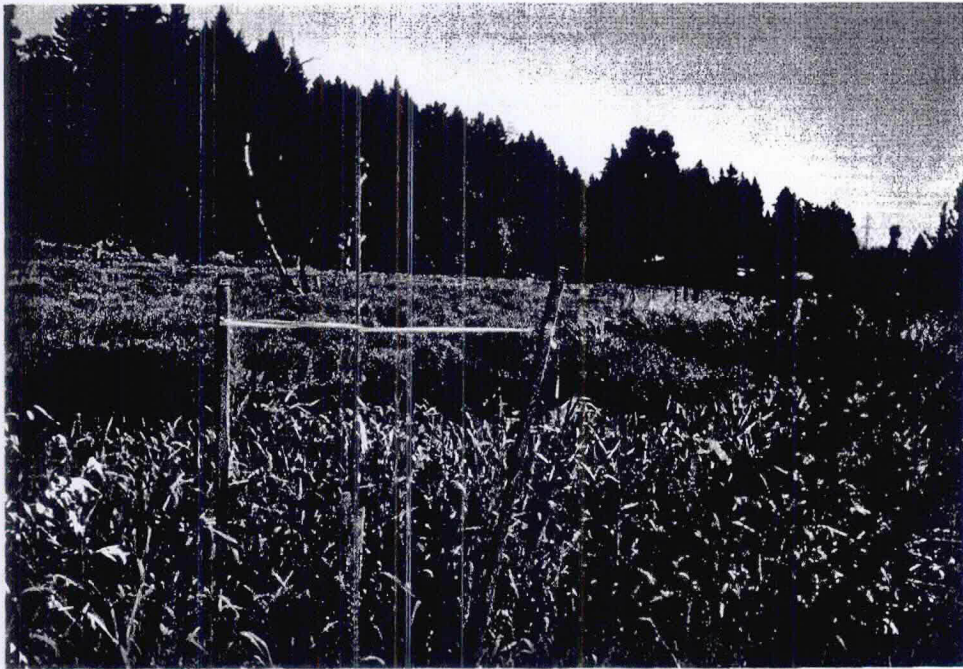
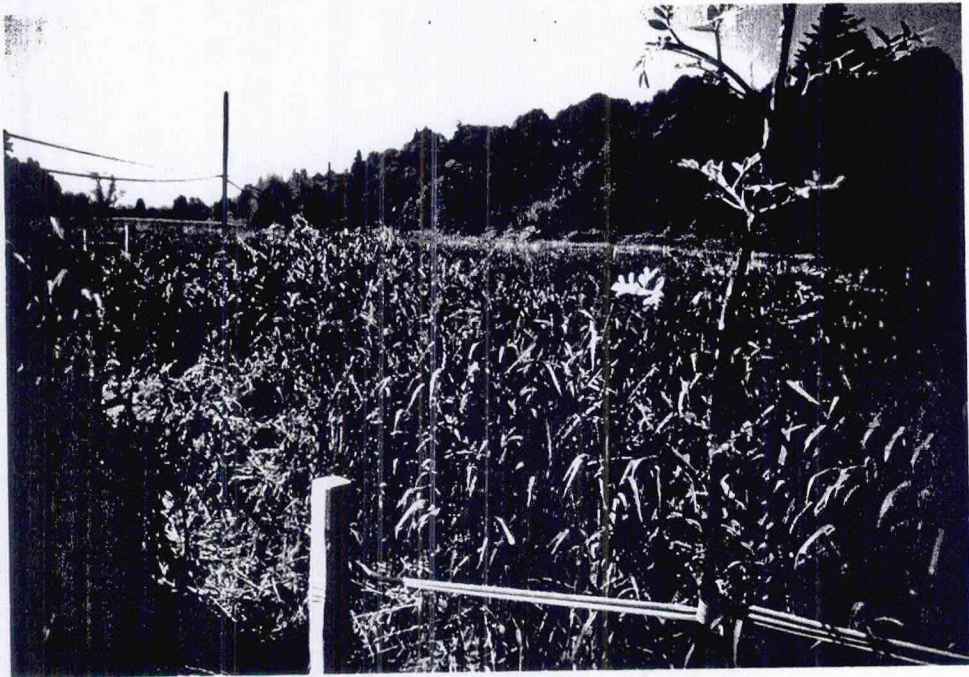
AREA 'C'



MAY, 1997. AFTER GRASS WAS CUT AWAY FROM TREE.

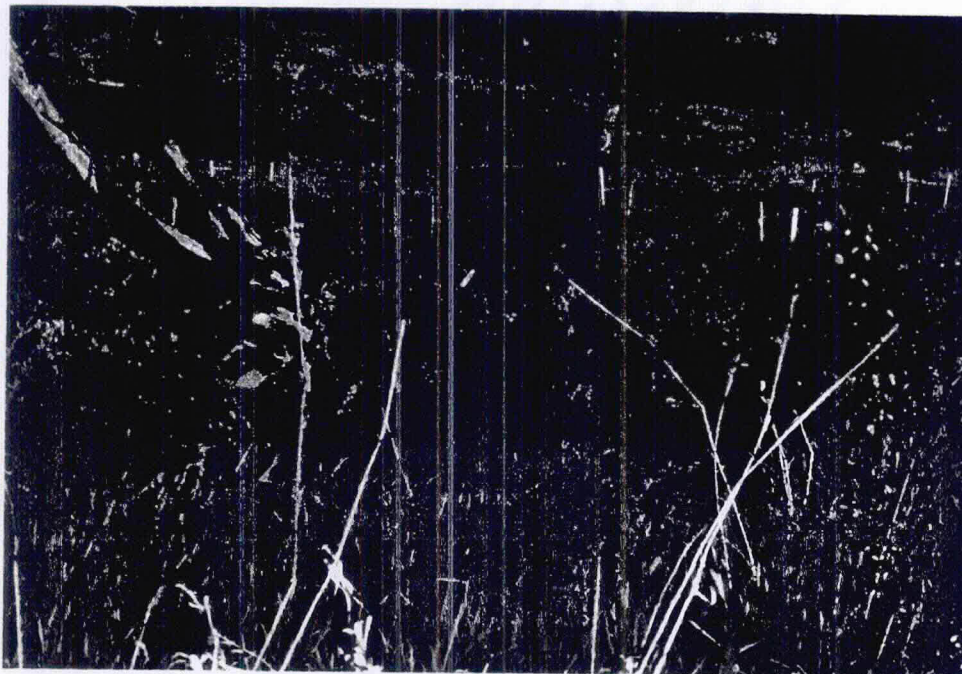


AREA 'C'

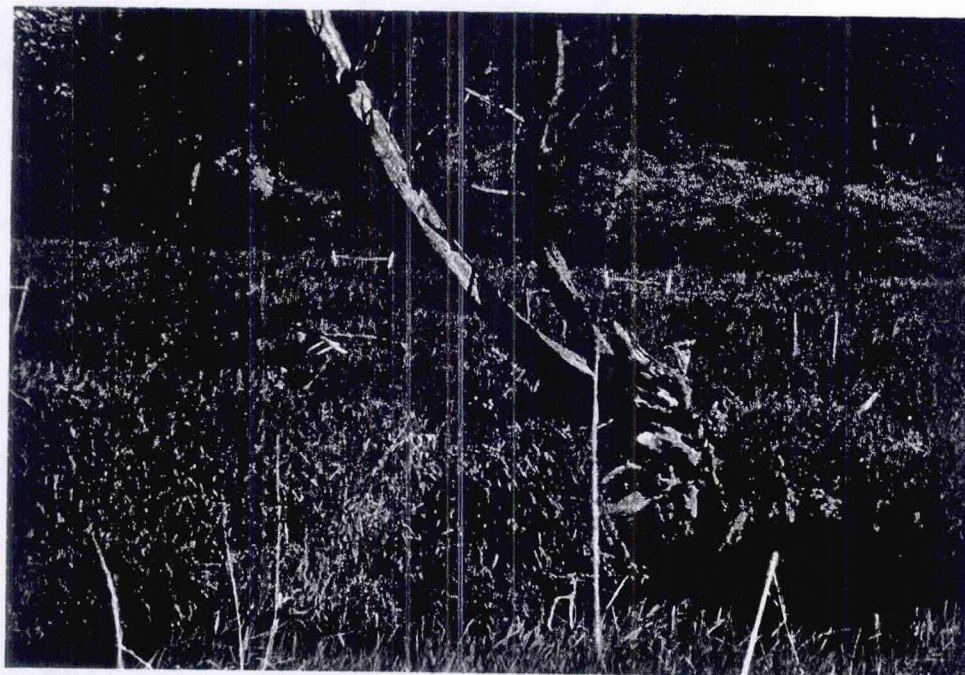




AREA 'C'

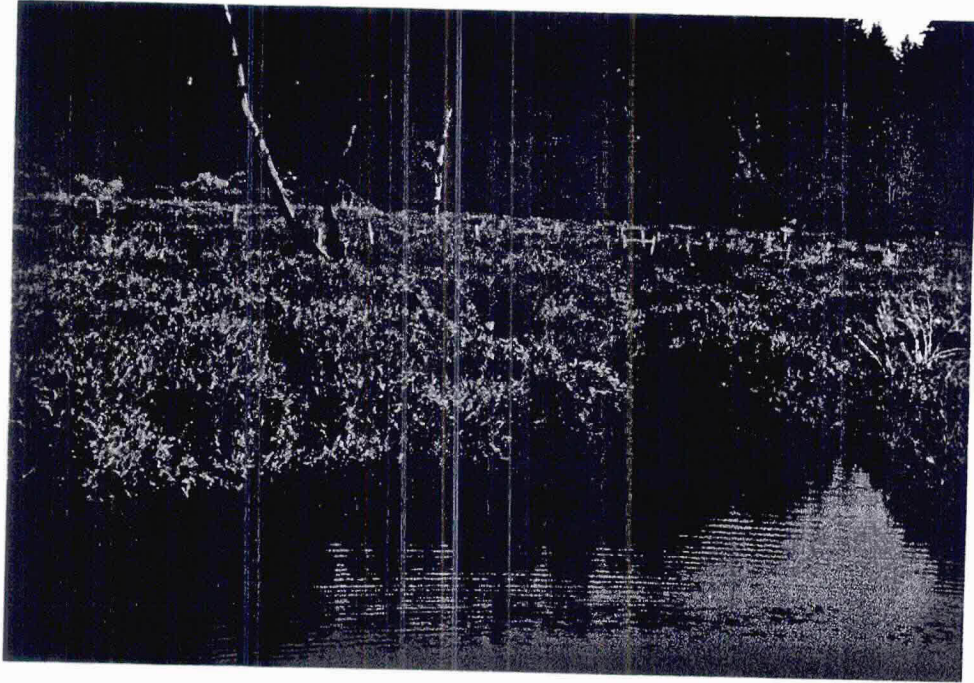


NOTICE DUCK IN POND AND TREES IN BACKGROUND



NOTICE DUCK FLYING AND TREES IN BACKGROUND

AREA 'C'





## PROJECT DESCRIPTION

The City of Vancouver and the Vancouver Service Corps (an AmeriCorps program) stream bank restoration project selected three locations along Burnt Bridge creek. The scope of the project was to plant native plants through out the 4,500 yards of the three sections. types of plants include: cedars, ash, cottonwood, elderberry, hardhack, dogwood, maple firs, crab apple, hazel nut, currant, and plum. The goal of the project was to take the existing stream bank and plant groups of plantings that were native to the area with the intention of having the mature plants grow to provide food and shelter to the land critters and provide shade to the stream.

The project also included an educational piece which was to include the training of stream bank steward-ship to local school age students.

The project was divided into three separate areas:

Area "A" between Divine Road and Thunderbird Village of the project had some of the highest recorded temperatures within the 8 mile stream. Previous maintenance to this 2,00 foot section of stream bank included mowing all vegetation from stream side to 30 feet away. The only other vegetation was a small amount of reed canary grass a willow tree and three cedars. As a result of this management practice the bacteria counts in this section of the stream were quite high.

Area "B" is upstream approximately 1.5 miles. It is an area that has future plans to have a bridge crossing the creek. It is also an area that the City of Vancouver's Drainage division had been creating holding ponds for storm retention. Part of there plan included plantings around the retention ponds but did not include a 1,500' section between another upstream set of retention ponds. this area was mowed infrequently with some vegetation.

Area "C" is at the mouth of Burnt Bridge Creek where it feeds into Vancouver Lake. This area is approximately 200 yards wide and 1 mile long. The entire area is wetland and is entirely covered by Reed Canary Grass. The area houses animals which include coyotes, deer, water fowl, eagle, and other birds of pray, and rodents.

## GOALS AND BENEFITS OF PROJECT

The goal of the project was to create better habitat for the wildlife and to shade the stream to keep water temperatures lower.

Area "A" was planted to allow for people using the adjacent trail to have visual water contact corridors and to provide the needed shade and habitat necessary for a healthier habitat. In order to reach this goal a fairly dense planting occurred for 100' feet than a 50 foot section was left without any plantings. By doing this we feel that we were able to benefit the wildlife and still provide that all powerful need for humans to be around water.

Area "B" is an area between two different retention pond projects. This project became an extension/connector to the other projects where retention-metering ponds had been constructed. AmeriCorps members planted 400 native plants along the north side of the stream. The south side of the stream is a natural forested area and provides a considerable amount of shade. However, the side included a maintenance program of mowing. Since our planting of the area another group had seen what we were doing and collected donations and followed suit with an additional set of plantings. This area no longer receive maintenance mowing.

Area "C" Because of the very invasiveness of the reed grass we believed that by planting wetland trees (200, 6' Oregon Ash *Fraxinus Latifolia*) using wood chips covered by weed fabric we could provide for a habitat which would enhance this linear green space. The goal was to provide a tree that was taller than the grass in hopes it would not be choked out by the invasive species. Its future growth and its close plantings are hoped that they eventually will grow up and shade out the reed grass providing a better habitat.



## WORK TASKS AND TIMELINES

The project started November of 1995 with a planting in section "A". followed by the December 1995 flood and then followed by the Great Flood of 1996. during both of these floods 95% of the plantings were underwater losing approximately 60% of all plants. A second planting was done in March and April. Because the plant materials purchased was through the Clark County Offenders Industry and purchase prices were far below market value AmeriCorps members were able to replant the damaged or destroyed plants and to extend the amount of work to a second area.

To enable to extend the amount of work completed Metro granted us an additional \$5,000 to work along a third section of the stream.

## DOCUMENTATION MUST BE ATTACHED FOR ALL COSTS

	Description of Services or Materials Purchases	Cost or Cash Value (cash, in-kind materials & services, volunteer labor)	Request for Reimbursement from Metro*
<b>PERSONNEL COSTS</b> Volunteer hours are valued at \$4.75 per hour. Attach time sheets or receipts.	Americorps participants doing site preparation, plant installation, site clean-up, and site maintenance work.	\$10,775.38	0
<b>MATERIALS &amp; SUPPLIES</b> Briefly describe. Attach receipts.	Plants, weed cloth, and wire & lumber to build beaver protection around the new plants.	\$9,228.63	\$9,228.63
<b>EQUIPMENT RENTAL</b> Briefly describe. Attach receipts.	Post hole digger to dig holes for the plants (1 day)	\$59.18	\$59.18
<b>PROFESSIONAL or OUTSIDE SERVICES(S)</b> Briefly describe. Attach receipts.	Public Notice in <u>The Columbian</u> newspaper to advertise award of grant and appropriation of funds	\$105.28	\$105.28
<b>TOTAL REIMBURSEMENT REQUESTED:</b>		\$20,168.47	\$9,393.09

\*Reimbursement cannot exceed more than 50% of total project cost or more than total cash outlay and all must have a 1:1 match.



**Burnt Bridge Creek Restoration**

Date	Doc #	Vendor	Total	Total Match	Personnel Cost	Materials Plants & Supplies	Equipment Rental	Professional Services
04/19/95	VW 24318	The Columbian	105.28					105.28
11/15/95	VW 35122	Anderson Rental	59.18				59.18	
11/15/95	VW 35226	Parr Lumber Co	11.47			11.47		
11/21/95	VW 35620	Davis Landscape Nursery	2.37			2.37		
11/21/95	VW 35611	Parr Lumber Co	67.11			67.11		
11/29/95	VW 35795	Yard N Garden Land	1,687.71			1,687.71		
12/31/95	VW 37727	Clark Co Auditor	1,309.22			1,309.22		
		1995 Labor		2,809.63	2,809.63			
			3,242.34			3,077.88	59.18	105.28
	YTD 1995		3,242.34	2,809.63		3,077.88	59.18	105.28
	LTD		3,242.34	2,809.63		3,077.88	59.18	105.28
03/06/96	VW 40872	Yard N Garden Land	165.08			165.08		
03/06/96	VW 40857	Parr Lumber	83.09			83.09		
03/06/96	VW 40844	Homebase	47.74			47.74		
03/20/96	VW 41646	Yard N Garden Land	38.75			38.75		
03/20/96	VW 41634	Parr Lumber	73.12			73.12		
03/27/96	VW 41915	Clark County Auditor	645.60			645.60		
04/10/96	VW 42753	Homebase	10.33			10.33		
04/10/96	VW 42767	Parr Lumber	83.09			83.09		
04/10/96	VW 42753	Homebase	39.63			39.63		
04/24/96	VW 43474	G W Deal Inc	1,183.60			1,183.60		
05/01/96	VW 44036	Parr Lumber	52.73			52.73		
05/08/96	VW 44361	Clark County Auditor	161.13			161.13		
08/21/96	VW 50029	Parr Lumber	(14.63)			(14.63)		
12/31/96	VW 56434	Clark County Auditor	79.25			79.25		
		1996 Labor		3,282.25	3,282.25			
			2,648.51			2,648.51	-	-
	YTD 1996		2,648.51	3,282.25		2,648.51	-	-
	LTD		5,890.85	6,091.88		5,726.39	59.18	105.28
02/20/97	VW 59005	J Frank Schmidt & Son	1,614.00			1,614.00		
03/03/97	VW 61248	Offender Industries	451.60			451.60		
04/09/97	VW 61473	Fred Meyer	30.08			30.08		
04/09/97	VW 61708	CSI Geosynthetics	150.64			150.64		
04/11/97	VW 61759	Parr Lumber Co	35.86			35.86		
04/30/97	VW 64706	Lumberman's	299.68			299.68		
05/09/97	VW 63196	Parr Lumber Co	485.36			485.36		
05/29/97	VW 64393	CSI Geotextiles	295.94			295.94		
	VW 63218	CSI Geotextiles	51.41			51.41		
05/21/97	VW 64060	Fred Meyer	87.67			87.67		
		1997 Labor		4,683.50	4,683.50			
			3,502.24			3,502.24	-	-
	YTD 1997		3,502.24	4,683.50		3,502.24	-	-
	LTD		9,393.09	10,775.38		9,228.63	59.18	105.28

## PROJECT STAFF / WORKERS / VOLUNTEERS

Phil Oaks Project Supervisor  
City of Vancouver/Clark Parks and Recreation

Terry Snyder Landscape Designer  
City of Vancouver/ Clark Parks and Recreation

Sam Adams Drainage Engineer  
City of Vancouver

Elizabeth Walker Urban Forester  
City of Vancouver

AmeriCorps / Vancouver Service Corps 18 volunteer members

Martin Luther King Elementary Vancouver School District  
Dave Irwin's 4th grade class 1996 and 1997

## HOW PROJECT RELATES TO THE GREENSPACES PROGRAM

Each of the three above areas all relate to the Greenspaces mission by securing our open and Greenspaces and providing for a better habitat for our land bearing critters including ourselves and water critters.

## WHAT WORKED / WHAT DIDN'T / HELPFUL HINTS

Working with the offenders industries program to buy plants was a very positive thing. We were able to purchase plants for about one third the cost of a retail nursery. What didn't work was the lack of continuous communication between the staff that maintain the banks of the stream and their employees. the most helpful hint I can give is to buy LARGE plants and make sure their locations are staked and flagged. If possible and depending on planting locations a mulch around the plants may help to identify locations of plants and to feed the plants as it decomposes.



The practice of putting the wood chips under the wed fabric seems to be working very well at keeping the grass from growing and keeping the mulch in place when the water rises.

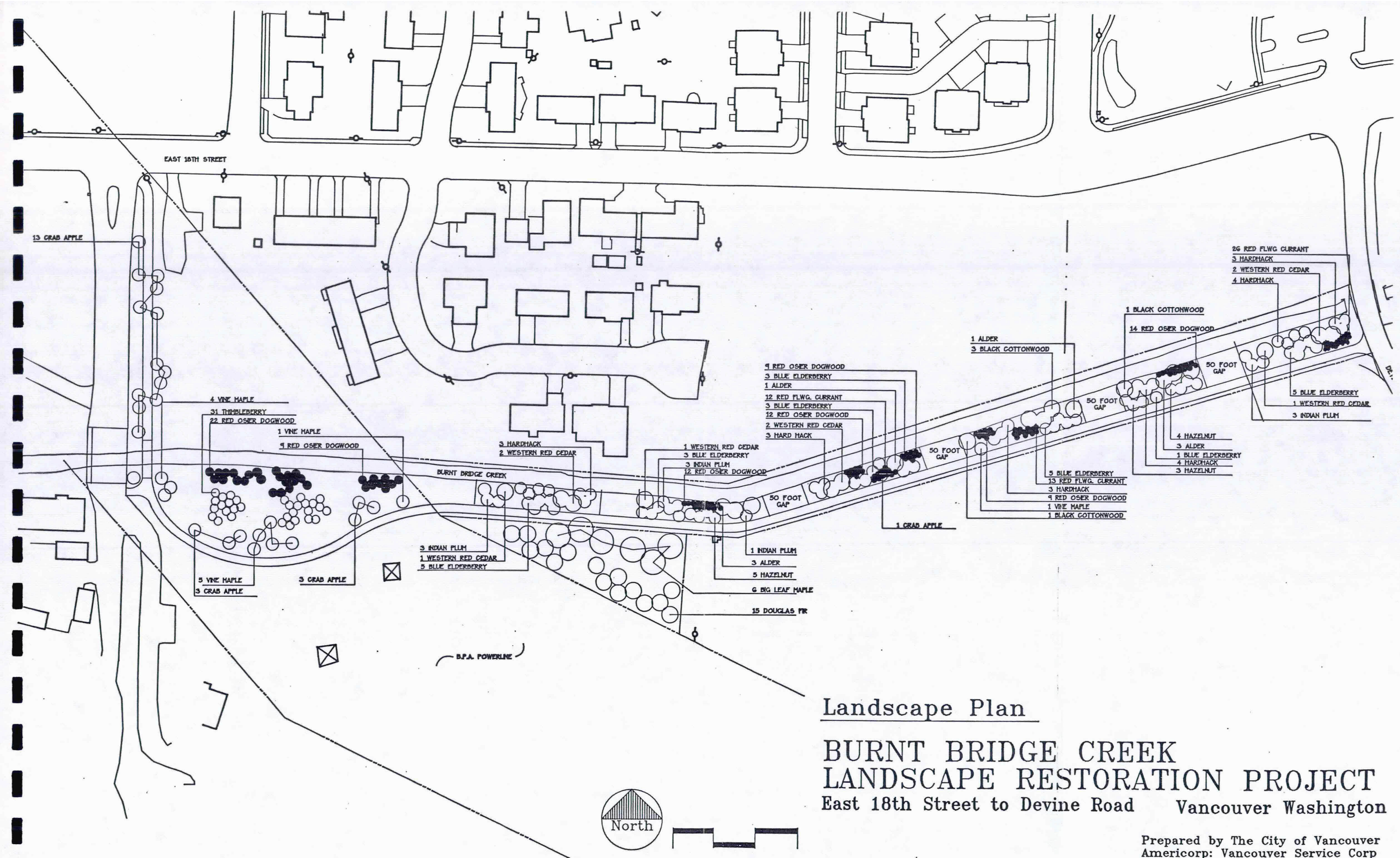
#### SUGGESTIONS FOR FUTURE GRANT MANAGERS

Use the help from other people working in similar or like projects. The list that Lynn creates for metro projects can be your best resource for how you do your project.

#### MONITORING AND MAINTENANCE PLAN

A plan is in place for the neighboring high school's biology class to monitor growth and replace plants that did not survive. As a back-up the city of Vancouver's Drainage division has received a set of plans and will aid in watering and general plant care.





## Landscape Plan

# BURNT BRIDGE CREEK LANDSCAPE RESTORATION PROJECT

East 18th Street to Devine Road Vancouver Washington

Prepared by The City of Vancouver  
Americorp: Vancouver Service Corp