

JOHNSON CREEK IMPROVEMENTS AT MAIN CITY PARK

PHASE II - BANK REVEGETATION

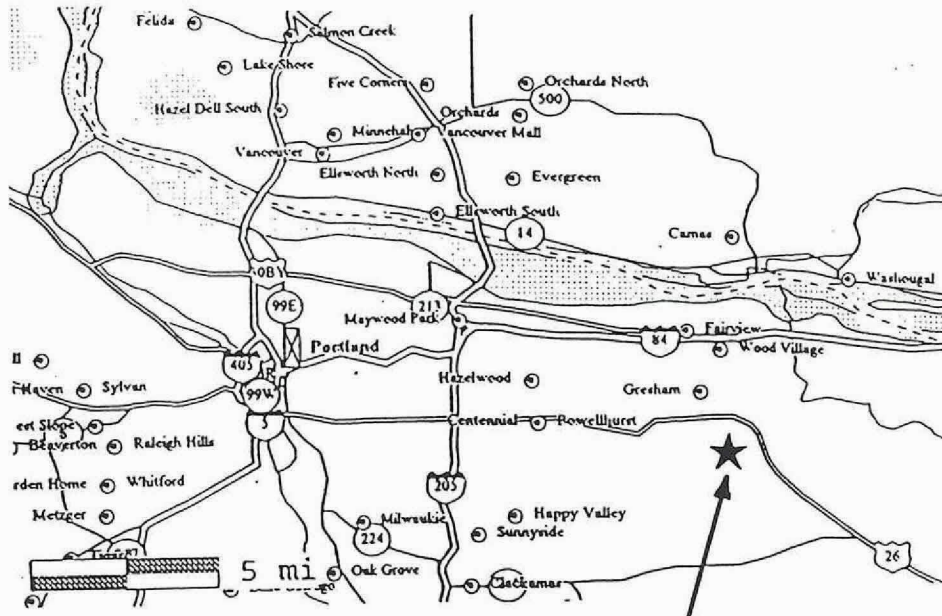
**METRO GREENSPACE RESTORATION PROJECT
FINAL REPORT**

June 1998



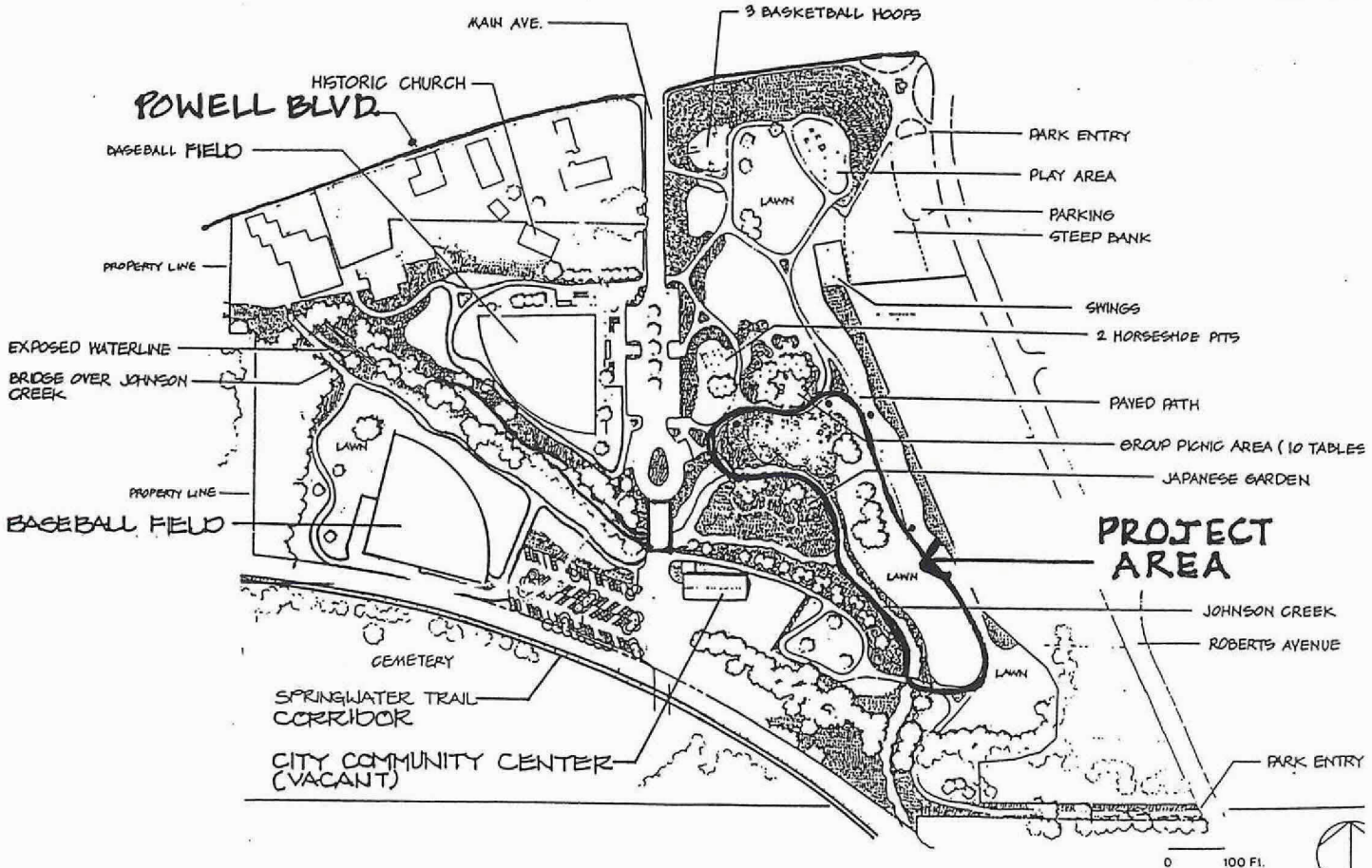
**Lora Price, Project Manager
Parks & Recreation Division
Department of Environmental Services
City of Gresham
1333 NW Eastman Parkway
Gresham, Oregon 97030**

VICINITY MAP



GRESHAM
Project Site

MAIN CITY PARK



STREAMBANK STABILIZATION

pathway

WATER QUALITY POND

RIPARIAN REVEGETATION

PLACE LARGE WOODY DEBRIS IN THIS AREA

JOHNSON CREEK

ISLAND

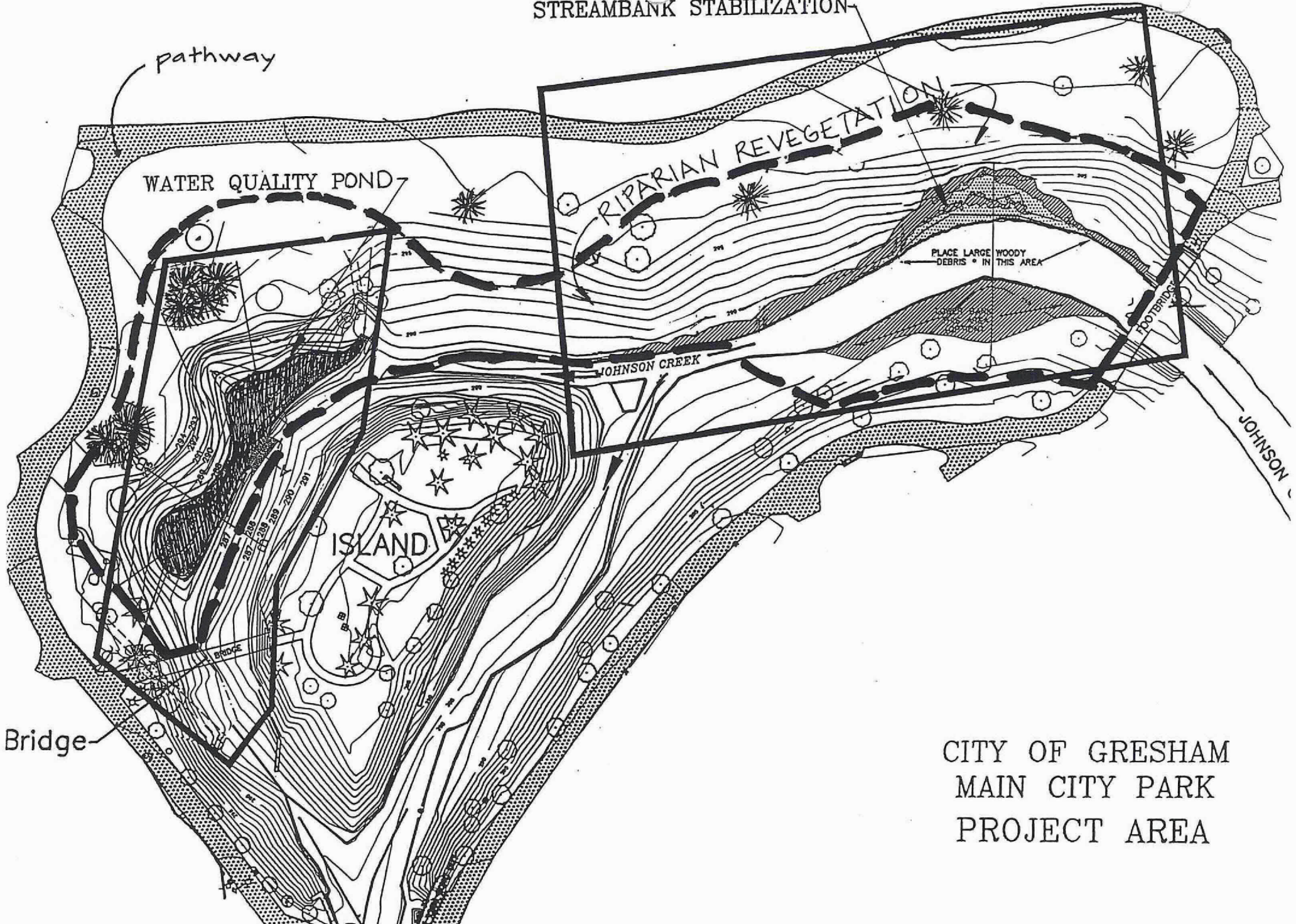
BRIDGE

FOOTBRIDGE

JOHNSON

Bridge

CITY OF GRESHAM
MAIN CITY PARK
PROJECT AREA



PROJECT DESCRIPTION

Main City Park is one of Gresham's oldest parks. Development of this park has occurred over a span of many years, but major developments in the park took place in the late 60s when much of the park was created, in fact, by filling in a large oxbow meander of Johnson Creek. Much of the 1/3 mile of creek that we see flowing through Main City Park today is, in actuality, an altered channel. This fact combined with the formalized park landscaping that existed down to the stream channel contributed to a number of negative impacts on the stream.

This project addressed three primary problems along this reach of Johnson Creek; lack of a native vegetation buffer zone along the streambank, a massive bank failure which was worsened by the February 1996 flood and, two large storm drains that daylighted directly into the creek, conveying pollutants through the storm runoff into the creek. The storm drains and bank failure were addressed in Phase I of this project.

The focus for this phase of the project was to reestablish a native wetland and riparian vegetation buffer along the streambank. This phase of the project was implemented with the involvement and commitment of several partnership groups which was vital to its success; they include the Johnson Creek Watershed Council, Friends of Trees, Gresham Rotary Club, Multnomah Youth Corps and Envirocorps. These groups have each been involved in the planning and preparations and ongoing maintenance in some way in addition to the planting. To date we have an estimated 800 wetland plants and riparian shrubs and trees planted with a good success rate despite harsh soil conditions of the site. Returning a buffer zone along the creek has also enabled several volunteer plants to establish such as spike rush, alders, cottonwoods, and willows. With a few years these plantings will make a significant positive impact on this reach of the creek.

GOALS AND BENEFITS

The formation of the water quality wetland treatment pond will help reduce the discharge of sediments and pollutants in Johnson Creek by intercepting the stormwater runoff and allowing it to filter and settle before entering the creek. The stabilization of the major bank failure will prevent further soil loss and sediment discharge into the creek. Four large root wads, which were incorporated into the bank stabilization will provide additional underwater fish habitat. The round boulders that were used for stabilization also provide a recreational/viewing benefit for park users

Because the project area is within a highly used park and along a highly visible and accessible reach of the creek this project will provide wildlife and plant viewing opportunities, volunteer stewardship and excellent outdoor education potential.

WORK TASKS AND TIMELINES

WORK TASKS	Mar 97	April	May	June	July	Aug	Sept	Oct	April 98
Presentation & design workshop w/ MYC	March 6								
Planting Design by MYC & design review	March 6-30								
Order plant materials	March 1-	April 15							
Order plant supplies		April 1-8							
Partnership Event Planning Meeting		April 9							
Contractor's site work completed		April 27							
Delivery of materials, Planting Day set up			May 1-2						
Planting Day			May 3						
Planting follow up: refinement/watering			May 5-10						
Summer hand watering, weeding, and mulching by volunteer groups			May 17-	June	July 22				
Fall maintenance, beaver guards and replacement planting							Sept 29	Oct 6	
Earth Day maintenance and additional planting									April 25

PROJECT BUDGET

	Description of Services	Cost or Cash Value	Reimbursement Request from Metro
Personnel & Labor Costs	Internal services: project coordination & admin.; irrigation installation	\$1,640.00	
	MESD, Youth Corps Envirocorps		\$1,050.00
	Volunteer Labor	\$4,978.00	\$500.00
Materials & Supplies	Plant Materials		\$2,585.75
	Ceramic amendment		\$540.00
	Beaver Guard materials		\$294.68
	Planting mix & mulch	\$300.00	
	Irrigation materials	\$700.00	
Rental Equipment	Trencher	\$125.00	
Outside Services	Wetland Planting	\$470.43	\$1,529.57
	Erosion control jute & seeding	\$1,100.00	
TOTAL REIMBURSEMENT REQUESTED			\$6,500.00

PROJECT STAFF / WORKERS / VOLUNTEERS

City Staff:

Lora Price; Park Planner
Amy Cortese; Stormwater Division
Terry Ramseth; Maintenance Supervisor

Partnerships:

Bob Roth, Johnson Creek Watershed Council
Chrissie Greenwood, Terri Panowitz; M.E.S.D., Multnomah Youth Corps
Scott Liebenguth; Gresham Rotary Club
Anthony Roy, James Allison; Friends of Trees
Eann Rains, Envirocorps

PROJECT RELATIONSHIP TO GREENSPACE PROGRAM

Goals of the Greenspace Program include: establishing a regional system of interconnected natural areas, trail and greenways for wildlife and people; preserving the diversity of plant and animal species; and educating citizens and encouraging environmental awareness so citizens will become involved stewards of natural areas.

This project supports the Greenspaces Program by restoring a degraded reach of Johnson Creek, thereby restoring connectivity of natural conditions along the creek, for wildlife in particular. The project improves water quality by removing pollution point sources and helps to restore plant and animal diversity. This project encourages environmental awareness by involving several volunteer partnerships in the implementation and maintenance phases, and the site will serve as an excellent outdoor classroom.

WHAT WORKED / WHAT DIDN'T

1. Plant species, size, planting design, methods and timing: The planting for this project has had a high success rate, about 80%, which I attribute to a number of factors. By and large the plant palette that was selected for this project site was appropriate and the design fitting to the micro-conditions of the site's variations. The planting method was modified for the hard clayey soils and slopes of the planting area. Plant sizes were large enough to be seen and compete with potential impacts, i.e. people traffic, weeds, etc. Plants were planted in spring to give them 5 months to establish before a next flood season. An automated watering system was in place for the first two summers.

We probably had more diversity in plants than was necessary or helpful to overall plant success, but it was a good test to observe which species were the hardiest and which were more fragile. In general, at this site, the plants that were selected for the drier, sunny upper banks did not fare as well. This I think was due in part to the poorer soils of the upper slopes in combination with the irrigation which did not drain well in the heavy clay soil.

2. Strong Partnerships: The involvement of several committed partnerships was critical to the success of this project. To some extent, all of the partners were involved prior to and following the actual planting day, which was very important for their investment and satisfaction in the project. The success and commitment to this project was truly shared which really bared out, when a year later, Friends of Trees took the lead in organizing an Earth Day work party at Main City Park.

3. Organization of the 125+ volunteer planting event: The organization of the planting event was about as flawless as one can expect, which really paid off during the actual day. Comments were actually made by the volunteers on how well organized things were. Event planning meetings were held with all the partners to address logistics and details. We had a good ratio of crew leaders to volunteers and additional roving inspectors/helpers. The site was divided into color coded sub-areas. Plants were delivered to these areas and labeled flagging marked the planting locations. The size of project and amount of work was gauged about right so there was not too much or too little to do.

4. Plant Maintenance: Plant maintenance was as much a focus of this project as the planting. Having volunteers scheduled in through the first summer and periodically throughout the year was vital. Ongoing activity and attention to the site allowed us to notice problems and needs. Plant damage due to nutria or beavers became a problem in time. We waited until we saw damage before we installed beaver guards because we did not want 500 beaver guards to become an attractive nuisance to kids or end up in the creek. As it turned out the problem was specific to one area within our project site which provided easy access from the creek to the plants. We also witnessed that the damage was selective to a handful of species, so we could tailor our efforts. None the less the guards, have been difficult to keep in place, particularly since we have large plants that we are attempting to get around such dogwood and willow. We have had to retrieve the guards from the creek after high spring flows and have since opted to just replace plants lost.

ADVICE AND HELPFUL HINTS

1. Plant selection, size, planting methods and timing all need to be designed for your specific site conditions. For instance, the fact that this project site was in a heavily used park influenced our decision to have plants large enough to not be trampled and to make a visual impact. Because much of the planting was in a floodway we chose to establish a jute protected erosion seed cover first in disturbed areas of the site and to not remove existing turf but instead plant in pockets within in it to keep the overall bank stable. Because of the heavy nature of the soils and the floodway, we chose not to use soft planting mix with our planting to avoid plants drowning or washing away. We instead incorporated ceramic granules which were designed as a clay amendment to assist in drainage and/or retain moisture during dry periods.

2. Foster ongoing involvement of your partnerships before, during and after the planting, particularly after! Having the Multnomah Youth Corps involved early on in the site analysis and planting design for this project proved to be a valuable applied learning experience for them and built in their investment into this site. Having all of the partners involved in the planning of the event is the only way to address all of the myriad details that need to be dealt with, plus they can bring experience, good ideas and expertise that one project manager may not have. Again sharing the responsibility for the stewardship of the young planting is critical to the successful establishment of the plants.

3. Observe Closely. Observation can give a lot of answers or at least some pretty good guesses to cause and affect. Steady observation also gets you on top of problems in a timely manner. Watch which plants thrive and which don't and try to assess why. Do some locations work better for a particular species than others? Observations from each project give you that much more experience going into the next.

4. Plan, plan, plan. When working on a large volunteer planting event, the logistics of planting day need an incredible amount of detailed orchestration. How will people and plants and materials be moved from point A to point B? How is quality communicated and built in to the process? But most importantly, remember to keep it fun. Good organization, good refreshments, enough but not too much work, and overt appreciation keep volunteers fulfilled and happy.

5. Seize every opportunity to keep attention on the site and ongoing stewardship of the project. Build maintenance into the overall project design and/or actively seek opportunities to focus energy at the site. Main City Park continued to be used as a hands-on learning site for MYC in the fall. Friends of trees contracted with the Urban League to provide maintenance for this and several sites they were involved in. We channeled several church, scout and service groups to this site that were looking for a community service project to do. And finally we made it a focus of our Earth Day events in the spring of 1998 with a planting and maintenance work party.

6. Make sure that the maintenance/operation arm of your agency is on board early and buys in to the project. For this project to happen at all, it was important to have our maintenance staff buy into the fact that we were creating a natural native corridor zone along the creek that they would not be maintaining with their conventional landscape maintenance practices. They gave input to where that line separating the two zones would be that made sense from their mowing perspective. They also were a great assistance to this project by installing an irrigation system to get the plants through the first years and as always they were counted on for the delivery of planting amendments and materials.

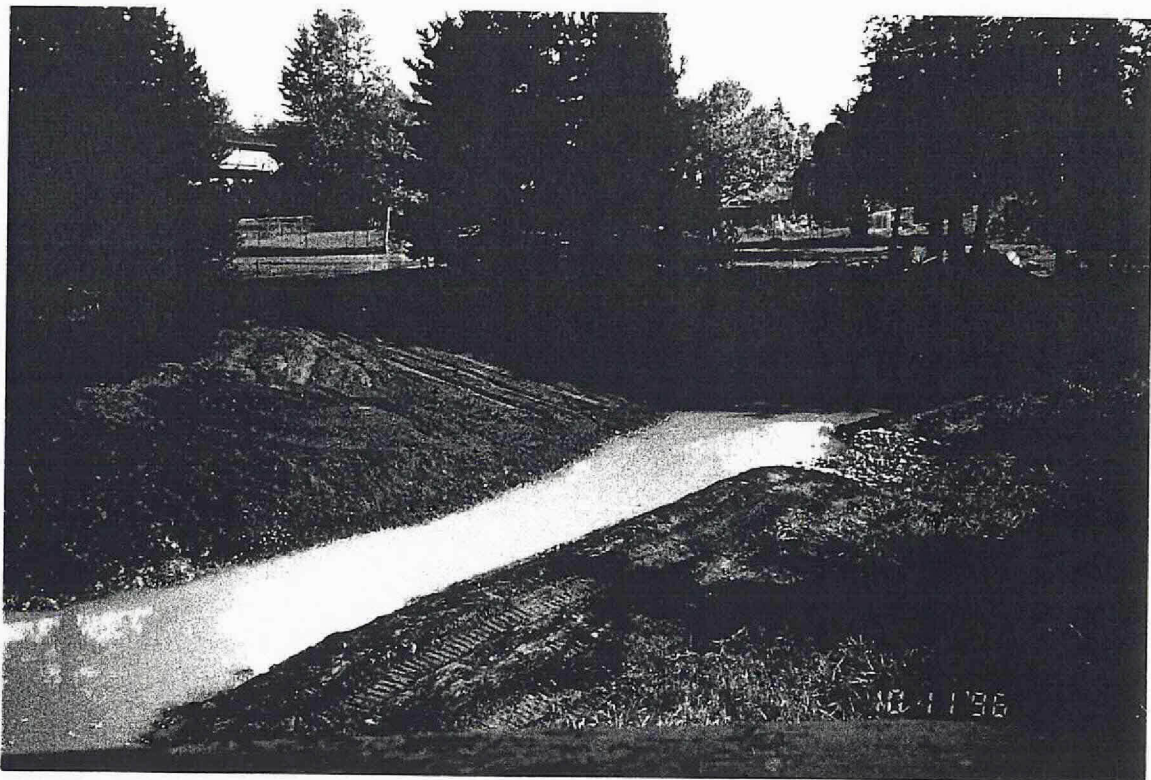
MONITORING AND MAINTENANCE PLAN

The City's Stormwater Division will continue to monitor and maintain the function of the storm drain outfalls and the wetland treatment water quality pond. The Parks and Recreation Division will monitor the bank stabilization area and the native plantings. Automatic irrigation is supplied as long as plantings need it. Maintenance of the plants, which includes weeding and mulching, staking and beaver guards, invasive removal, and additional planting, has been and will continue to be carried out by the partnership groups as well as other community service groups to establish plants with assistance and direction from the Parks Division.

APPENDIX

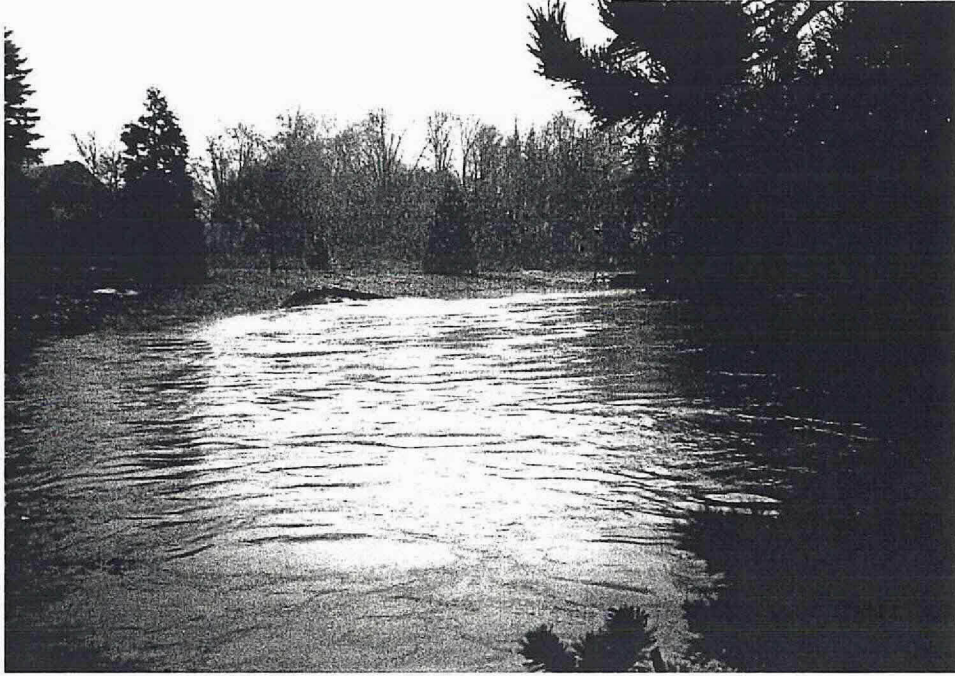


Water Quality Wetland Treatment Pond area **before** construction. Area is covered with large gravel which was a maintenance headache in addition to providing no habitat along the creek.

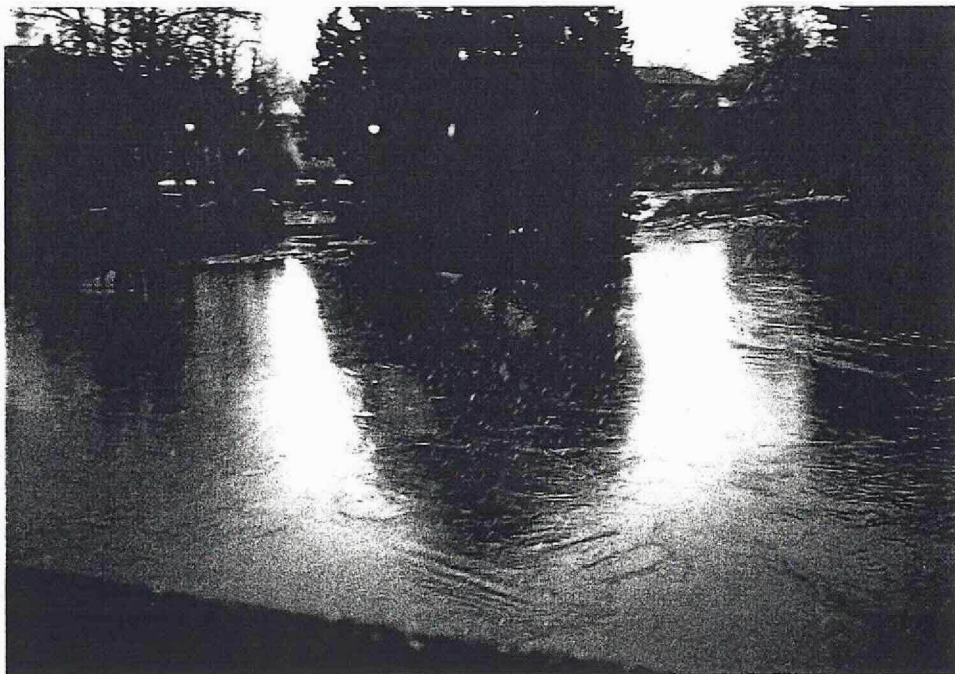


Water Quality Wetland Treatment Pond at 75% completion. Erosion control jute and ground cover were installed following this photo. Riparian and wetland plantings will be planted in the spring during phase II.

NOVEMBER 1996 FLOOD



Flood waters rise to top of newly completed stabilized boulder bank



The Water quality pond area under flood waters

PLANNING

- **Site analysis and design “101”-handouts for MYC**
 - **Meeting notes - logistics planning**

MESD - Multnomah Youth Corps students prepare site analysis maps after visiting the site



Presentations and reviews of students' planting plans



Presentation given to Mult. Co. Youth Corps at the beginning of their involvement - March 97

Main City Park - Stream bank Revegetation Project (May 3rd)

Background - How Project got started.

Three years ago fingerling salmon were dropped into Johnson Creek to swim out to the ocean and hopefully return in 3 years. Mayor Gussie McRobert was there and she looked at the stream banks of Main City Park and knew we needed to create better habitat along our stretch of creek in the park for the fish to return to. (Show slides)

What makes good Fish Habitat? gravelly streams with large woody debris in them, creating riffles and pockets; places to hide and catch food and most importantly, places to lay eggs that will not be damaged. Vegetation along the stream side provides shade and wildlife and aquatic habitat which in turns provides a rich diet for the fish. (Show illustration)

At the same time, several agencies, citizens and non-profit groups had come together as the Johnson Creek Corridor Committee to study the creek as a whole to address flood control, water quality and wildlife habitat issues. Out of this 2 year planning effort A Resource Management plan was created for all of Johnson Creek for everyone to work on together. (Show Plan)

One of the six priority problems that the plan identified was two large storm drains in Main City Park that flow directly into the creek carrying pollutants in the storm runoff from down town into the creek. So this was the second problem we wanted to address. (Show slides)

On top of that, we started to notice that one section of the streambank, at the bend of the creek, was eroding away with each high water. We needed to prevent the erosion of soil and sediment going into the creek. A huge chunk of the bank eroded away with the Feb. 1996 flood. (Show slides)

We wrote a grant proposal and applied for a grant from the Metro Greenspaces Program to fix these problems and restore and return the stream banks to a more natural setting.

Plans were developed to carry out the work (Show Construction Plans) and we are now almost done with two major parts of the project; the bank stabilization and the creation of a wetland treatment pond. (Show and Tell about work completed with slides).

Now we are ready to plant and revegetate the whole stretch of bank with a variety of native plants that will provide wildlife food and shelter and shade for the stream. The completed buffer planting will add a native buffer varying in width from 30 to 60 feet.

This is the part of this project that I want your help and involvement on: to help design a planting plan, prepare, and organize how the planting day will work, to plant the plants and to take care of them after they are planted.

PLANTING PREPARATIONS:

- 1. Site Analysis**
- 2. Research plants and prepare Planting Design**
- 3. Obtain plants and needed planting supplies**
- 4. Organize planting day logistics (how planting will be carried out in an organized way with up to 100 volunteers)**
- 5. On site preparations the day before**
 - defining planting sections**
 - flagging plant locations**
 - setting out materials, tools and supplies**
- 6. PLANTING DAY - MAY 3**
 - Serve as planting supervisors for volunteer groups**
- 7. Follow up tasks (whatever is needed to finish the job)**
 - building watering basins around plants**
 - mulching**
 - staking**
 - watering**
 - beaver guards, etc.**
- 8. Monitoring and Maintenance (watering)**

SITE ANALYSIS APPROACH:

1. Note where is the sun? Which areas will be in sun most of the time? Which will have some shade?
 2. Make note of slope conditions. Where is the slope the steepest (anything that is a 3:1 slope or greater)
 3. What are the soil conditions at different spots of the site. Take a shovel and dig some test holes.
 4. Note where you may want to keep views to the creek or keep sun exposure. Where do you want to provide more shade?
 5. Try to determine where wettest soil areas will be, medium and driest areas. Generally higher up the slope, sun exposed and gravelly will be the driest areas.
 6. Notice existing trees and how much area they really take up with their root zone. What kind of plantings could work under them? --Something that is shallow rooted and handles a little dryness.
 7. If people are using the park notice how they use this area. Where do they like to get close to the water? Where do they like to sit?
 8. If you have time, take a little walk upstream along the Springwater Trail and notice the native vegetation along the streambanks. It will help you to see what plants like to grow together and where.
- * To note this information on you base map, use a pacing technique to get an idea of distances and areas. (For me two steps equals 5FT)

PLANTING DESIGN TIPS & GUIDELINES:

- 1. Native plants (plants in nature) grow in groupings or masses and they grow in communities or associations of plant types. We want to match the natural patterns when designing with native plants.**
- 2. Take some time to get familiar with all the plants on the plant list so you have a pretty good idea of how big and wide the plant will get, what its preferences are for sun/shade and soil conditions, and what interesting features it may have with flowers, leaves, bark or branching structure.**
- 3. Work large to small.** The large trees will be the major structuring elements of the design. Figure out where they go first. Then work with the smaller trees and shrubs. The plant list is basically organized this way.
- 4. When beginning the design work, loosely or conceptually on sketch paper. Use the site analysis you have done to diagram generally where the different types of plants will go, paying attention to sun/shade, wet & dry areas, etc. Use "bubbles" to diagram general swaths or areas where you want basic plant types to go. For instance, where you want the massings of wet loving deciduous shrubs, where you want a low evergreen massing, where you want a grouping of small trees to provide a canopy of shade or where you want to feature a plant that has especially nice flowering qualities. Don't think about specific plants yet. You might want to work with tracing paper over the base map.**
- 5. Once you have these areas or zones basically laid out, you can begin to fill them in with specific plants, using the circle template. Be sure the circles are the right scale.**
- 6. Always cluster plant species (this gets back to the natural patterns) i.e., the larger shrubs should be clustered in groups of 4 or 5. The smaller shrubs or shrubs that are ordered in large numbers are meant to be used in larger groupings of at least 15-20.**

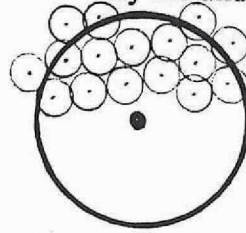
DRAWING THE PLAN UP:

- 1. The scale of the base map is 1 inch = 20 feet, so 1/2 inch will equal 10 ft and 1/4 inch will equal 5ft, etc. Once you establish a size for each type of plant, you then figure out what size circle to use to represent the plant on the plan. (Pick a medium size or average size to represent the plant, not its maximum size. You will use the circle template to draw plants on the plan.**

2. When showing a cluster of plants, lightly draw the circle and more boldly draw the outline around the cluster.

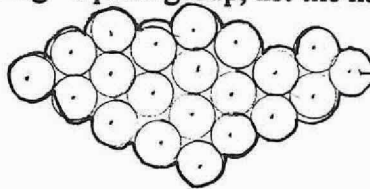


3. In some cases you may want to represent two layers of plants such as ground cover shrubs under the canopy of a Big Leaf Maple. Use a heavier bolder circle to show the tree canopy, then you can draw the smaller circle within it to show they are under the canopy.



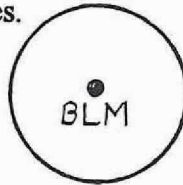
4. There are a few ways to go to label the plants:

If there is room, you can "flag" a plant group, list the number of plants in the group and spell out the plant name.

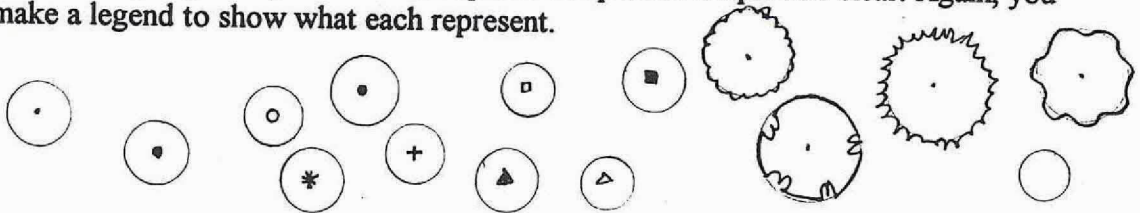


21 clustered rose

You can create a legend using an abbreviation system and put the plant initials in each plant circle or group of circles.



You can develop a plant symbol for each plant. Keep them simple and clear. Again, you will make a legend to show what each represent.



The general idea in drawing up the plan is to make it as simple and readable as possible. Use different line weights to create a hierarchy to help emphasize and distinguish information.

Good Luck and have fun!

MAIN CITY PARK PLANTING PROJECT MAY 3RD

PLANNING MEETING NOTES - April 9, 1997

I hope I have covered everything we discussed. I will be following up with all of you as plans progress. Let me know of anything we may have forgotten.

In attendance:

Multnomah Youth Cooperative -
Rotary Club - Scott Liebenguth
Envirocorps - Molly, Bobby
Friends of Trees - Anthony Roy
Johnson Creek Watershed Council - Bob Roth
City of Gresham - Lora Price, Amy Cortese, Terry Ramseth

ITEMS OF DISCUSSION

How many volunteers do we have? How many do we need?

We have approximately 60 volunteers committed to date and could use 25-30 more maximum. Friends of Trees will handle the remaining recruitment.

Kick off Ceremony: (Welcome- Acknowledgments- Directions to volunteers) Who will be involved? When and where should it be held? Invitations to dignitaries?

The kick off ceremony will be 15 minutes and then volunteers will break into teams for directions. Lora will begin the welcome. Bob Roth and Anthony Roy will both speak for a few minutes. We will also try to get a City Councilor or State Representative to speak. The picnic area will be the gathering point. Lora will make provisions to rent and set up a tent if weather outlook is for rain.

Parking and Directional Signage: FOT will bring a few sandwich boards to direct volunteers to project area.

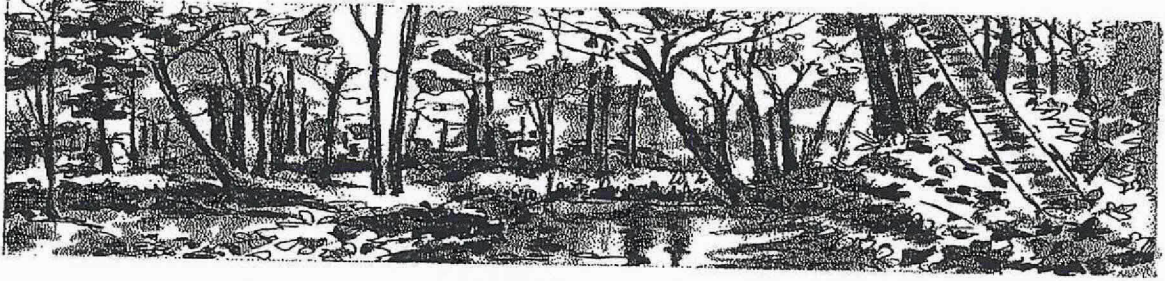
Volunteer Greeters/Volunteer Sign up: Getting liability waivers, assigning volunteers to a captain and team, directing late comers.

Amy will revise the waiver to serve all partners. Amy and FOT will register volunteers similar to FOT's registration system. (color coded name tags)

Information/Display Table:

All partners are encouraged to bring a banner if you have one that will hang at the picnic area. An information/Display table will also be in this area that all partners are encouraged to use to display and share information.

PUBLICITY



COME JOIN US IN A HABITAT RESTORATION EVENT !

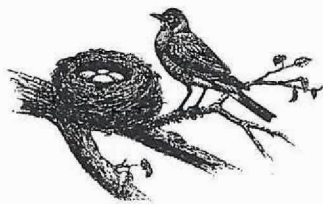
Community volunteers are invited to gather at Main City Park on Saturday, May 3rd, from 9:00 a.m. to 12:30 p.m. to transform the streambanks of Johnson Creek by planting over 550 native trees and shrubs. Our riparian planting will help to restore and enhance Johnson Creek by providing shade and habitat for fish and wildlife, and by reducing erosion and improving the water's quality.



So grab your gloves and shovel, bring a water bottle, come with friends, and enjoy a great time while helping to restore the creek. Refreshments will be provided! This great community endeavor is made possible by a grant from the Metro Greenspaces Program, funded by the US Fish and Wildlife Department.



To sign your group up or for more details, please call the Parks and Recreation Division at 618-2659 or 618-2531. Main City Park is located at the intersection of Powell Blvd. and Main Street.



We greatly appreciate your assistance and look forward to seeing you there!!



City of Gresham
Department of Environmental Services



Julee

MEMORANDUM

Office of the City Manager

Council Memorandum No. 51-97

To: Mayor McRobert and
Members of the Council

From: Bonnie R. Kraft, City Manager *B.R.K.*
Gregory E. DiLoreto, Environmental Services Director *G.E.D.*

Date: April 22, 1997

Subject: Upcoming Parks and Recreation Community Events

The DES Parks and Recreation Division is coordinating two upcoming community involvement events in support of the City Management Plan and Council Goal Six. The Council is invited to attend and participate in these environmental restoration and enhancement activities as part of National Arbor Day and Earth Day.

Arbor Day Tree Planting

Where: Davis Park/School

19501 NE Davis, South of Glisan Avenue

When: Friday, April 25, 1997

Time: 9:30 a.m. to 3:00 p.m.

Activity: Tree planting at the park will begin immediately after the student assembly, which is scheduled at 9:30 a.m. in the Davis School gym. This project is funded in part with an urban forestry grant through the State of Oregon Department of Forestry.

Johnson Creek Restoration

Where: Main City Park - Group Picnic Area

When: Saturday, May 3, 1997

Time: 9:00 a.m. to 12:30 p.m.

Activity: A brief celebration begins at 9:00 a.m. and planting activity will immediately follow. Stream planting and restoration work along Johnson Creek is planned in partnership with the Gresham Rotary Club, Multnomah Education Service District Youth Cooperative, Johnson Creek Watershed Council, Friends of Trees "Seed the Future" volunteers, Envirocorp work crew; and Parks and Recreation staff. This project is funded in part with a Metro/US Fish and Wildlife Grant.

Bonnie Ridley Kraft, City Manager
Phone: (503) 618-2300

Nina D. Regor, Assistant City Manager
Phone: (503) 618-2346

EMPLOYEE VALUES:

Quality

Integrity

Respect

City of Gresham

News Release

Date: April 24, 1997

Photo Op: YES

Main City Park

Corner of Main Street & Powell Blvd.

9:00 a.m. to 12:30 p.m.

Contact: Department of Environmental Services

Julee Conway, Division Manager

618-2531

Lora Price, Park Planner

618-2659

GRESHAM'S MAIN CITY PARK WILL BECOME GREENER

Over 100 community volunteers will help "green" the banks of Johnson Creek in Gresham's Main City Park on Saturday, May 3 when they plant native trees and shrubs from 9:00 a.m. until 12:30 p.m.

The planting efforts will be coordinated by the City of Gresham Department of Environmental Services and will enlist the assistance of Friends of Trees, Gresham Rotary Club, the Johnson Creek Watershed Council, Envirocorps, and the Multnomah Youth Cooperative. During the planting activity, over 550 native trees and shrubs will be installed along the creek's banks to provide shade and habitat for fish and wildlife.

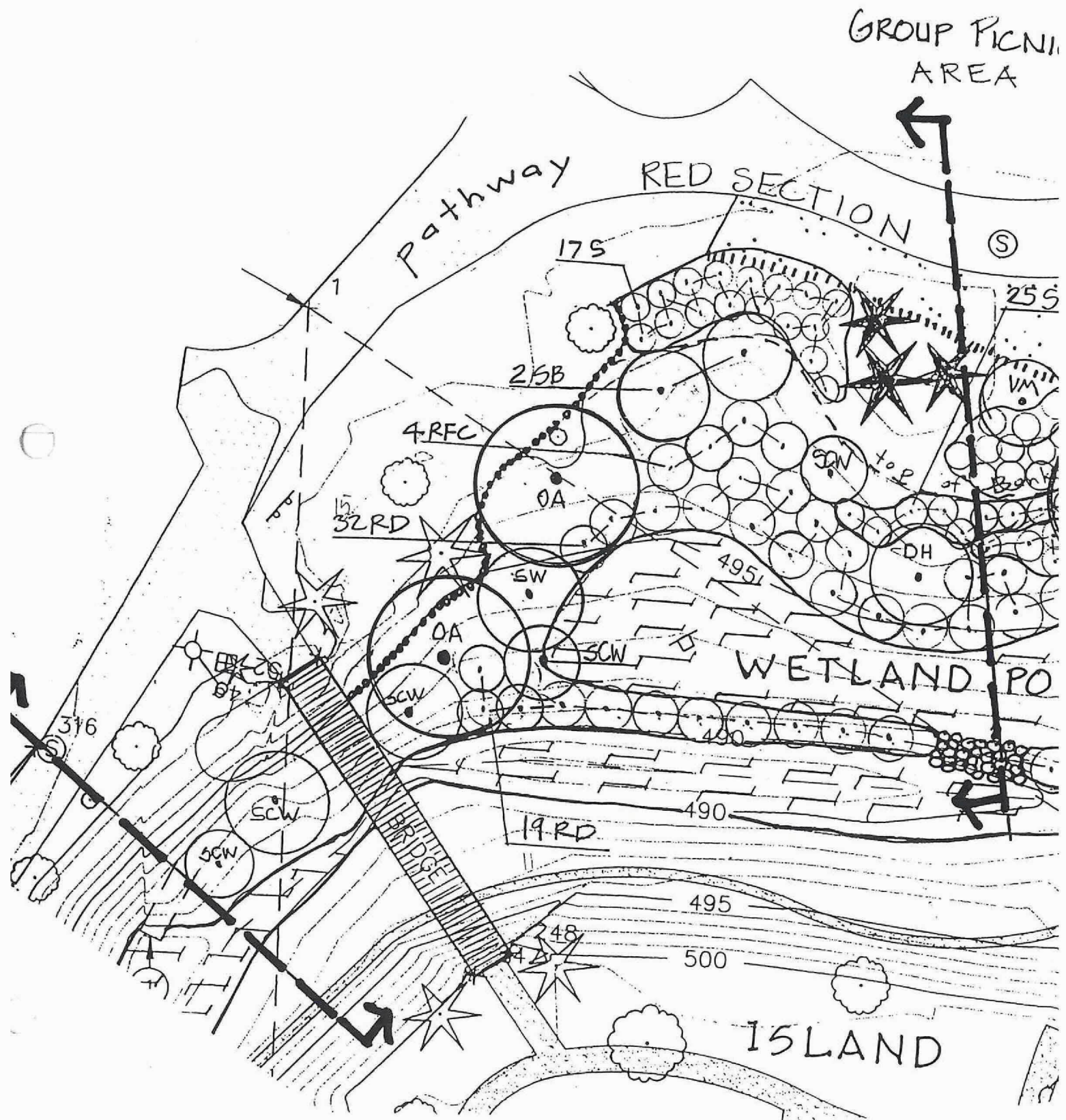
This partnership project is made possible by a grant from Metro's Habitat Restoration Program, funded by the U.S. Fish and Wildlife Department. It also supports Gresham's participation in the Friends of Trees "Seed the Future" campaign. "Seed the Future" is sponsored by Portland General Electric Company with the goal to restore the urban forest in the Portland metropolitan area. By the year 2001, thousands of volunteers will plant 144,000 trees, leaving a legacy of trees for future generations to enjoy.

The public is invited to participate as spectators or as planting participants. Details are available by calling Lora Price, Park Planner with the Parks and Recreation Division at City of Gresham, 618-2659.

- **Planting Design by Section**
- **Plant Inventory Sheet for Section**
- **Planting Detail and Instructions**

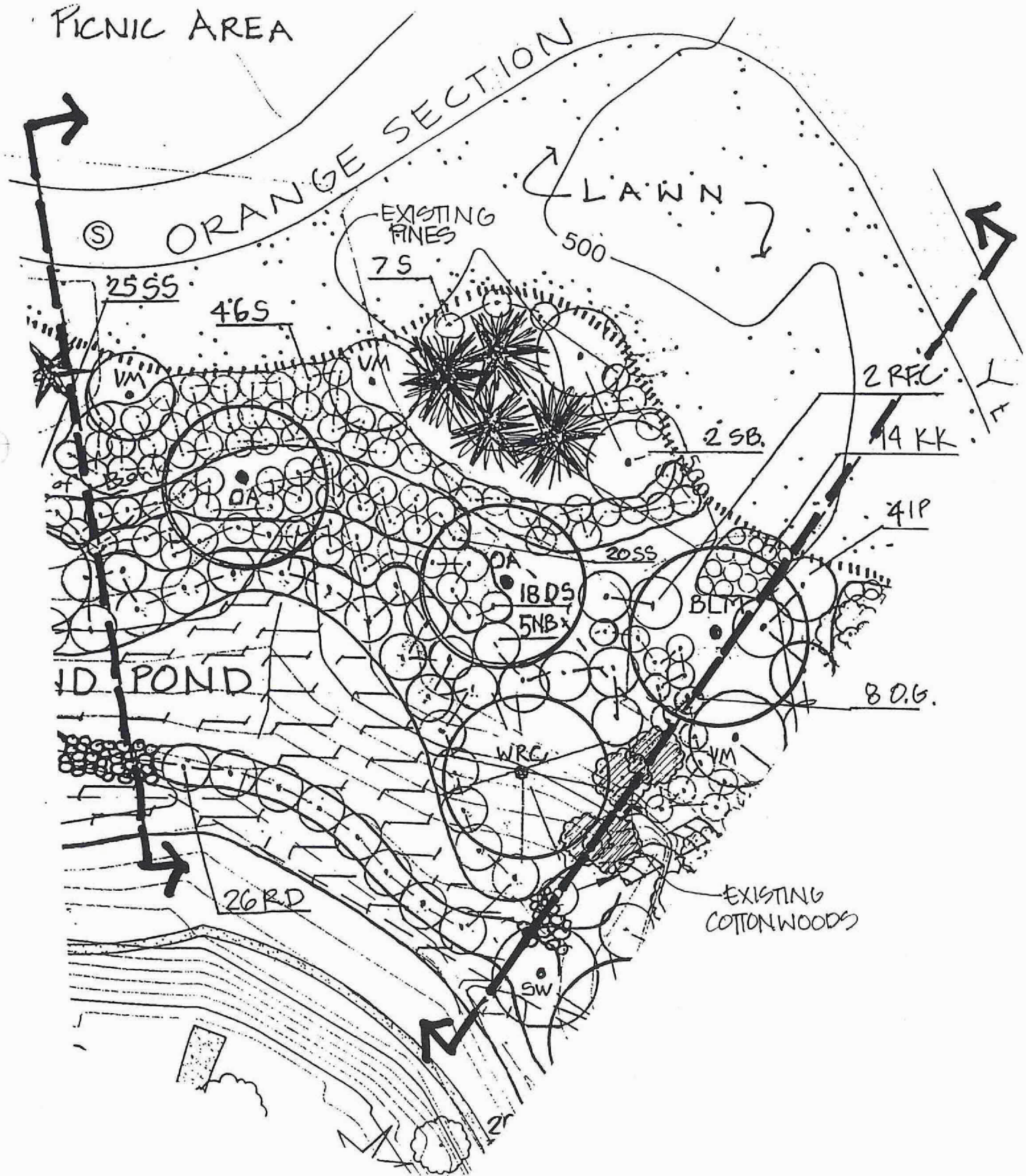
RED SECTION

PLANTS TOTAL



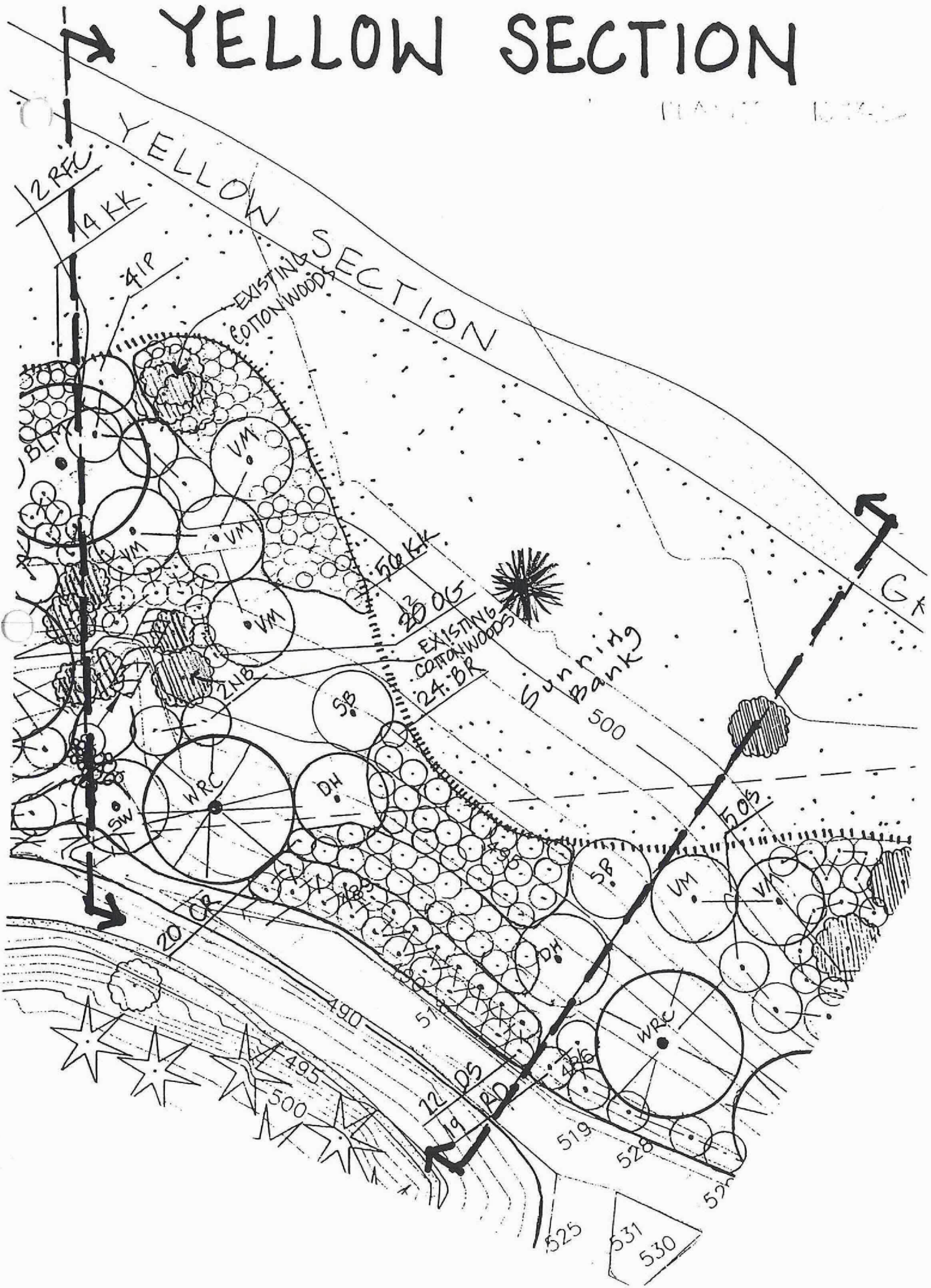
ORANGE SECTION

PLANTS TOTAL



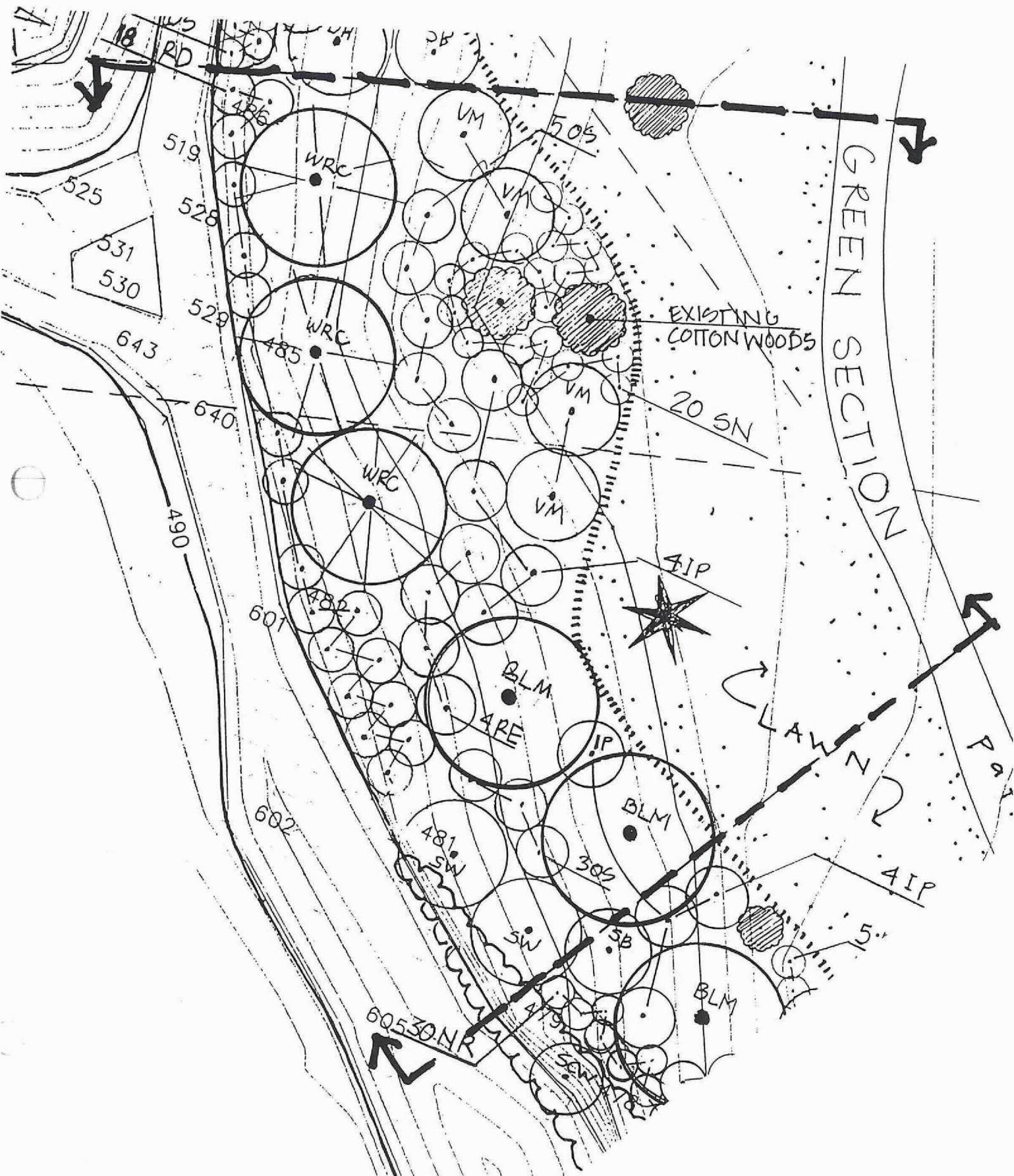
YELLOW SECTION

PLAN 1074



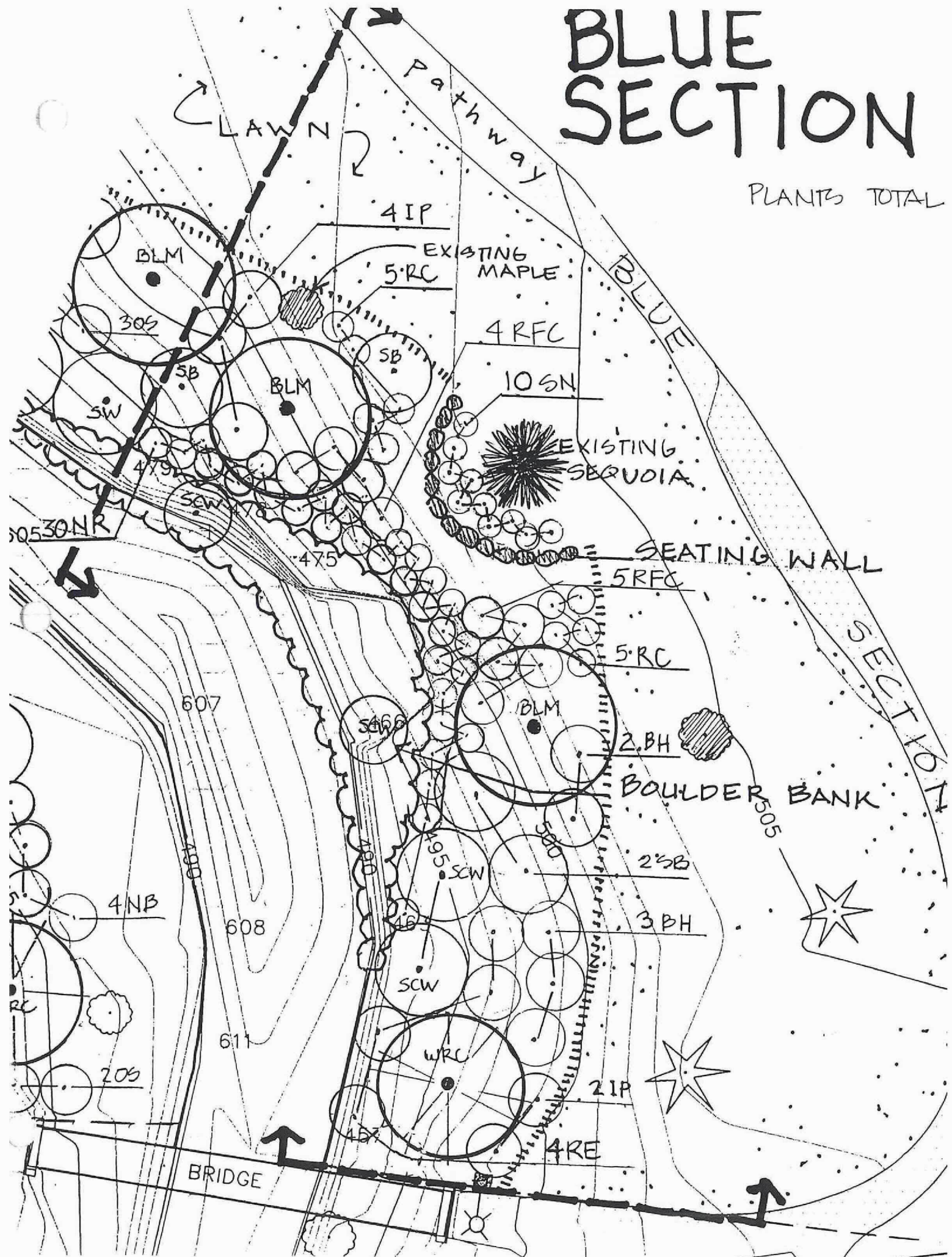
GREEN SECTION

PLANTS TOTAL

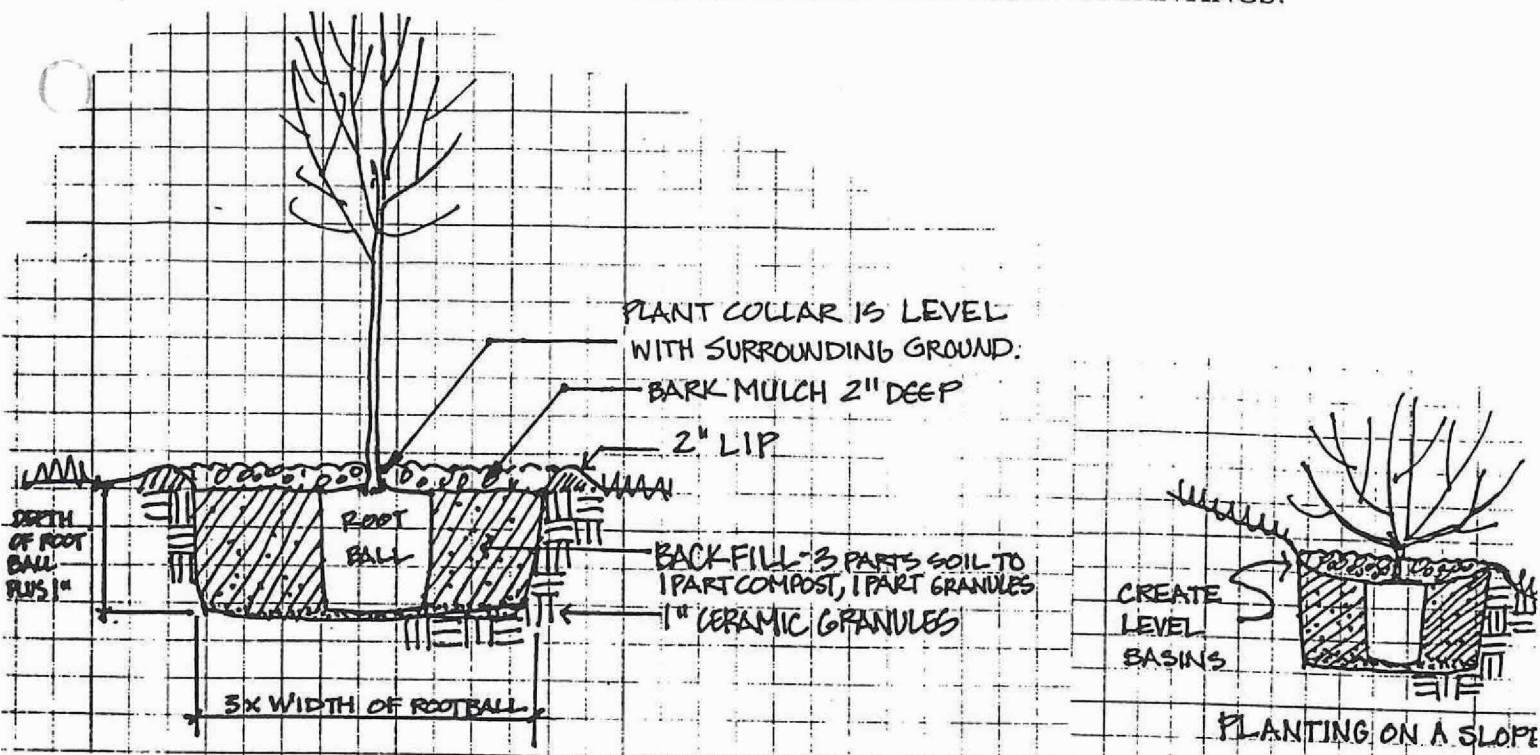


BLUE SECTION

PLANTS TOTAL



PLANTING INSTRUCTIONS FOR MAIN CITY PARK NATIVE PLANTINGS:



FIRST ~~INSTRUCT~~ INSTRUCT VOLUNTEERS ON HOW TO WORK WITH TOOLS SAFELY.

LAYOUT ALL PLANTS & ADJUST PLACEMENT

1. Dig hole equal to depth of root ball plus 1" and at least twice the width of the root ball.

* in turf areas, you will need to remove the layer of turf in a min. 2ft diameter circle for 1 gallon plants and 3ft diameter for larger plants.

* in jute netting areas, cut an opening for plant holes with pocket knife or shears. **Be careful.**

2. Place 1" of ceramic granules at bottom of plant hole.

3. Place root ball in hole so collar of plant is level with surrounding ground. Add more soil back to hole if necessary to establish right height of plant.

4. Prepare backfill mixture by adding ceramic granules and compost to native soil in an approximate ratio of 3 parts soil to 1 part granules to 1 part compost. (This will vary with locations. Some locations will not need amendment.

5. Fill holes half way and compact soil with feet or hands. Add fertilizer tablets (1/gal). Then backfill remaining hole to level with ground. Gently compact soil with feet or hands.

6. Form a 2" lip of soil around plant to create a basin that will hold water for future watering. When planting on a slope, be sure basin is level. (See sketch above)

7. Place a minimum of 2" depth of mulch around each plant in a 3ft diameter circle. For trees indicating staking, install staking as directed by Friends of Trees. Beaver guards will be installed at a later date.

8. Cleanup: Stack and collect empty containers and bring back to maintenance shop. If time allows, pile turf strippings in piles adjacent to pathway to be picked up by Parks staff.

GO SLOW

Main City Park - Plant List

MAIN CITY PARK		PLANT LIST									
							SECTION QUANTITIES				
Botanic Name	Common Name	Qty.	Size	Symbol	Spacing	Red	Orange	Yellow	Green	Blue	Purple
LARGE TREES											
Thuja plicata	Western Red Cedar	10	5 gal	WRC	25'			2	3	1	4
Fraxinus latifolia	Oregon Ash	6	5 gal	OA	35'	2	1			1	2
Populus tremuloides	Quaking Aspen	5	3 gal	QA	12'	2	2	1			
Acer macrophyllum	Big Leaf Maple	4	5 gal	BLM	35'				2	2	
SMALL TREES/LARGE SHRUBS											
Acer circinatum	Vine Maple	10	5 gal	VM	15'		2	4	4		
Salix scouleriana	Scouler's Willow	18	2 gal	SCW	10-15'	5				4	9
Salix sitchensis	Sitka Willow	4	2 gal	SW	10-15'	1		1	2		
Holodiscus discolor	Ocean Spray	12	2 gal	OS	8'				5		7
Holodiscus discolor	Ocean Spray	3	5 gal	OS	8'				3		
Physocarpus capitatus	Ninebark	25	5 gal	NB	8'	3	6	4		4	8
Amelanchier alnifolia	Serviceberry	17	2 gal	SB	10'	2	3	4	3	3	2
Sambucus cerulea	Blue Elderberry	7	2 gal	BE	12-15'				7		
Sambucus racemosa	Red Elderberry	10	3 gal	RE	12-15'					4	6
Cornus stolonifera	Red Osier Dogwood	100	2 gal	RD	8'	30	22	6	20	4	18
Osmaronia cerasiformis	Indian Plum	20	2 gal	IP	10'		2	4	4	5	5
Corylus cornuta	Beaked Hazelnut	5	2 gal	BH	10'					5	
Crataegus douglasii	Douglas Hawthorn	3	3 gal	DH	15'	1		2			
SMALL SHRUBS											
Rosa gymnocarpa	Baldhip Rose	24	1 gal	BR	5'					24	
Rosa pisocarpa	Clustered Rose	16	1 gal	CR	6'			16			
Rosa pisocarpa	Clustered Rose	4	3 gal	CR	6'			4			
Rosa nutkana	Nootka Rose	32	2 gal	NR	7'			12	1	19	
Ribes sanguineum	Red Flowering Currant	25	3 gal	RFC*	6'	6	4	4	5	6	
Ceanothus sanguineus	Red Stem Ceanothus	10	2 gal	RC	6'					10	
Spiraea douglasii	Douglas spirea	65	1 gal	DS	5'	10	25	22	8		
Arctostaphylos uva-ursi	Kinnikinnik	39	1 gal	KK	3'		39				
Symphoricarpos albus	Snowberry	30	1 gal	SN	5'		6	16	8		
Gaultheria shallon	Salal	70	1 gal	S	4'	50	20				
TOTAL		574				112	132	102	75	92	61

PHOTOS



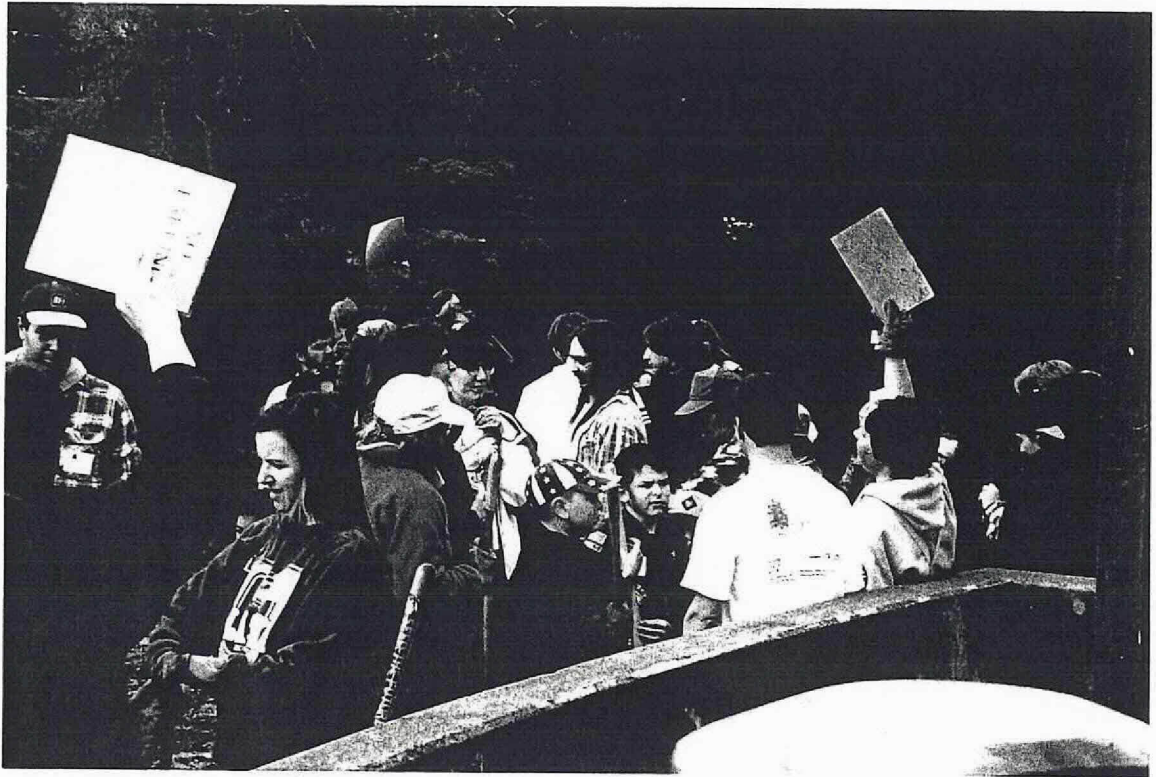
**Completed bank stabilization and water quality pond prior to planting.
May 2, 1997 site preparations for planting day.**





May 2, 1997 site preparations for planting day.





Volunteers find their crew leaders through a color code system



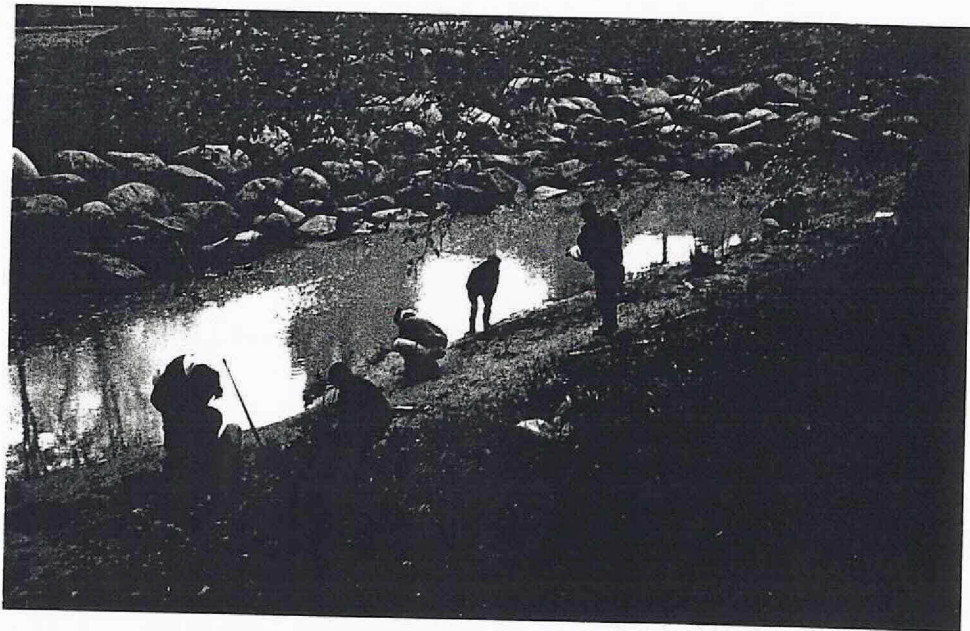
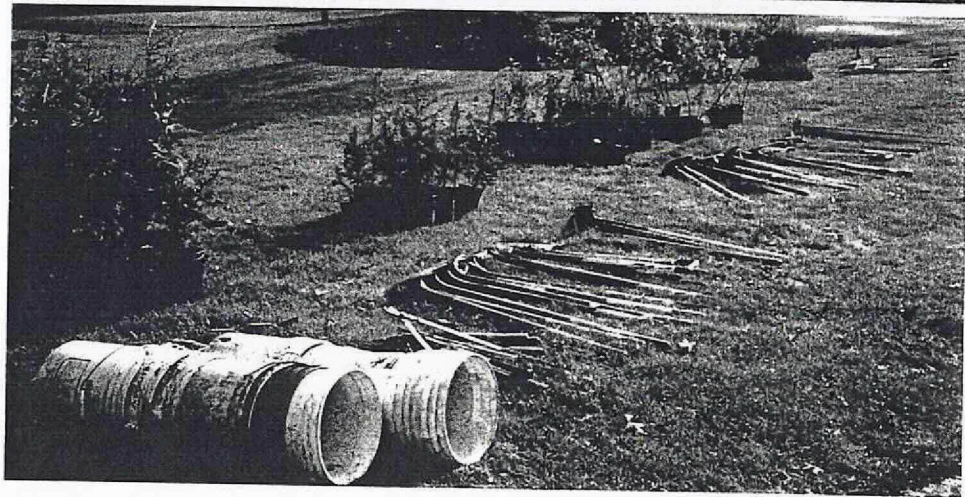
Crew leaders demonstrate the first planting

**City Councilor, Glenn McIntyre
and children plant a willow**



Busy volunteers planting the "Green Section"

Earth Day Work Party with Friends of Trees and Volunteers



Slough sedge and spike rush being planted on the south bench of the creek