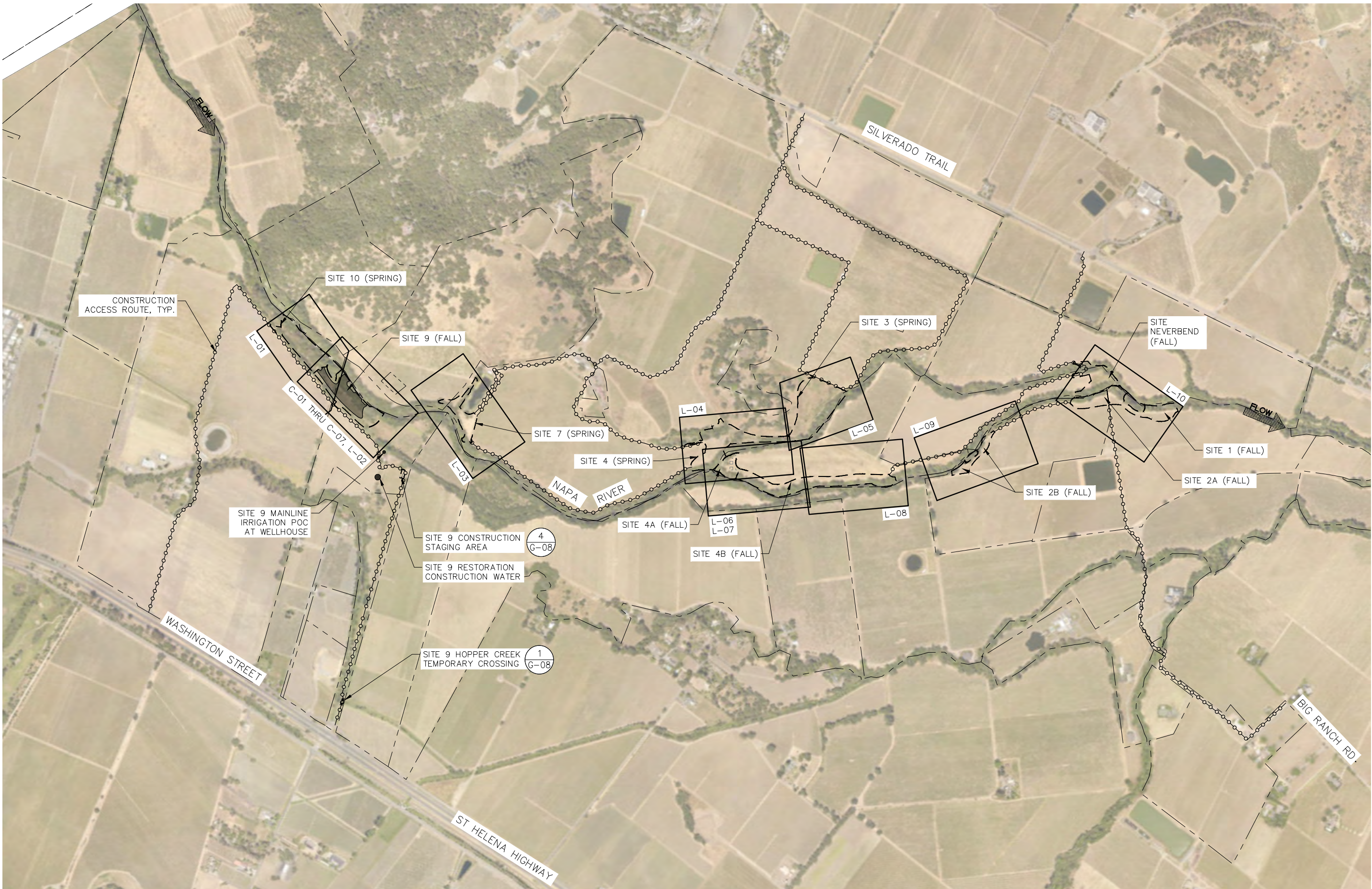


PLOT DATE: 9/23/2020 9:36 PM
LAST SAVE DATE: 9/23/2020 8:21 PM
FILE \\SFO-FILE01\ESAPWA\DATA\PROJECTS\2012\0120076.00 - NAPA RIVER - OAKVILLE TO OAK KNOLL\09 CAD\DWGS\FINAL\DESIGN\GROUP_D_REVEGETATION\SITE ACCESS & KEY PLANDWG



SITE ACCESS & KEY PLAN

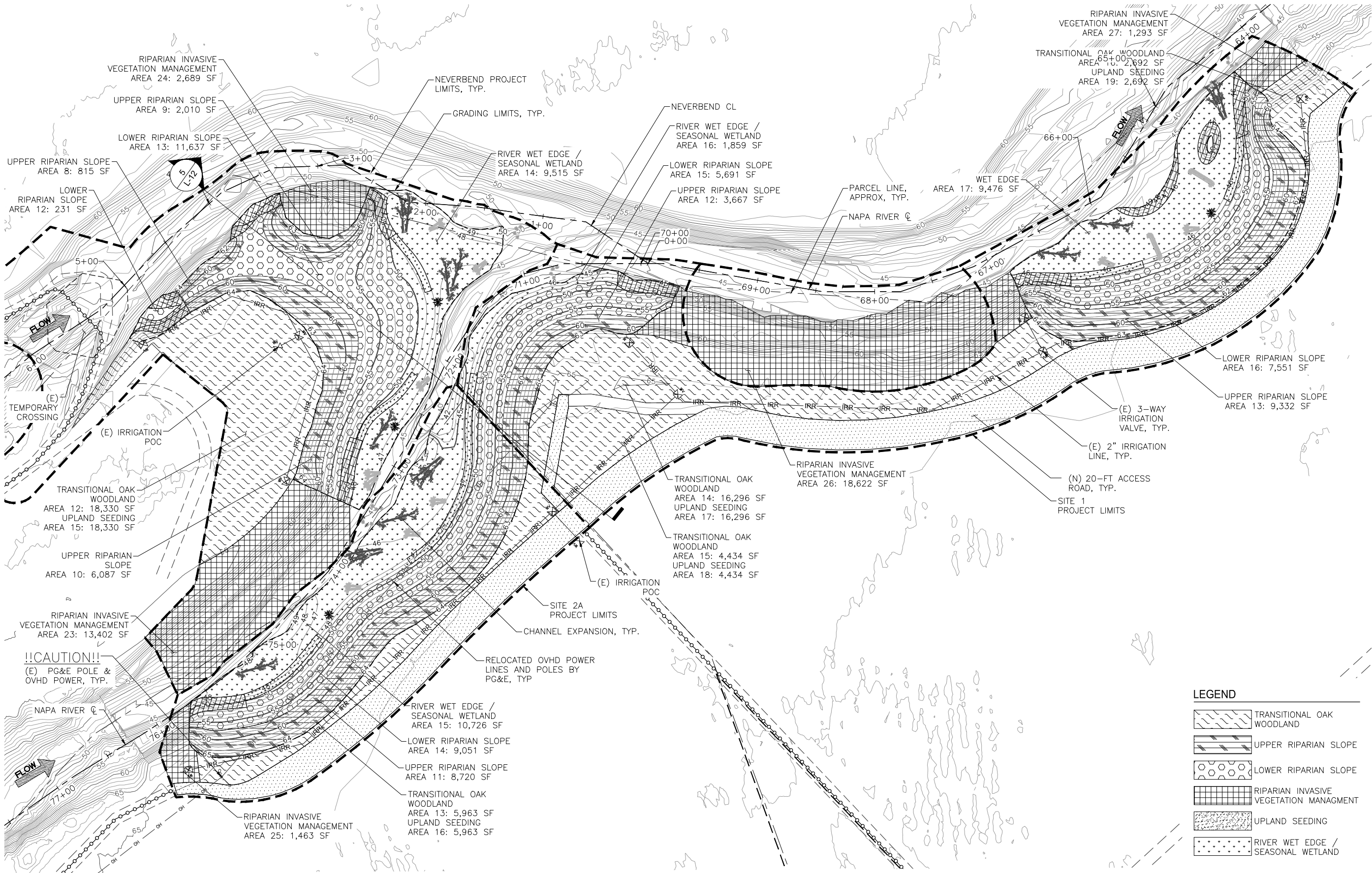
PLAN VIEW

SCALE: 1" = 500'

- NOTES:
1. SITE 9 RESTORATION GRADING AND ENHANCEMENTS TO BE CONSTRUCTED BEFORE REVEGETATION.
 2. REVEGETATION TO OCCUR AT SITES 10, 7, 4, AND 3 IN THE SPRING, 2021.
 3. REVEGETATION TO OCCUR AT SITES 9, 4B, 4A, 2B, 2A, 1, AND NEVERBEND IN THE FALL/WINTER, 2021/2022.

		555 Henry Street Suite 800 San Francisco, CA 94108 415.774.8800 www.esa-engineers.com	
DRAWN: GREG WEISSMANN, LANE WARE		CHECKED: JORGEN BLOWERS, ANN BORGONOVO	
DESIGNED: JORGEN BLOWERS, SCOTT SMITH		IN CHARGE: ANN BORGONOVO	
PROJECT: NAPA RIVER RESTORATION PROJECT OAKVILLE TO OAK KNOLL REACH - GROUP D (PHASE 1 AND PHASE 2)			
SHEET TITLE: SITE ACCESS & KEY PLAN			
COUNTY OF NAPA - PUBLIC WORKS		APPROVAL RECOMMENDED: Andrew Butler, PE Senior Engineer California Professional Engineer License No. 50772 707-259-8671	
NAPA COUNTY DEPARTMENT OF PUBLIC WORKS 1195 THIRD ST, SUITE 101 NAPA, CA 94549		DATE: 08/21/20 SCALE: AS SHOWN	
COUNTY PROJECT NO. PW XX-XX		SHEET NO. 7 OF 35	
SPECIFICATION NO. PW XX-XX		DWG NO. G-07	

PLOT DATE: 9/24/2020 8:22 AM
 LAST SAVE DATE: 9/24/2020 8:15 AM
 FILE: \\SFO-FILE01\ESAPWA\DATA\PROJECTS\2012\0120076.00 - NAPA RIVER - OAK KNOLL\09 CAD\DWG\FINAL\DESIGN\GROUP_D_REVEGETATION\REVEGETATION PLANS.DWG



REVEGETATION PLAN - SITE 2A 1 & NEVERBEND
 PLAN VIEW
 SCALE: 1" = 40'

NOTES

1. SEE SHEET L-11 FOR PLANT SPECIES AND QUANTITIES.
2. SEE SHEET G-02 FOR EXISTING SYMBOLS AND ABBREVIATIONS.
3. ALL AREAS BETWEEN THE LIMIT OF GRADING AND LIMIT OF WORK SHALL BE SEEDED WITH UPLAND SEEDING MIX UNLESS OTHERWISE NOTED.
4. THIS AREA CONTAINS CULTURALLY SENSITIVE SOILS. NO DISTURBANCE OF NATIVE SOIL IS ALLOWED EXCEPT SEEDING. SEE SHEET G-04 FOR MORE INFORMATION.
5. ALL TRANSITIONAL OAK WOODLAND AREAS TO BE SEEDED WITH THE UPLAND SEEDING MIX.
6. CONTRACTOR SHALL RESERVE SOME PLANTS FOR INSTALL BY OWNER IN UPLAND SEEDING AREA 2. SEE SHEET L-12 FOR DETAILS.

PROJECT: NAPA RIVER RESTORATION PROJECT
 OAKVILLE TO OAK KNOLL
 REACH - GROUP D (PHASE 1 AND PHASE 2)
 SHEET TITLE: REVEGETATION PLAN - SITE 2A 1 & NEVERBEND

COUNTY OF NAPA - PUBLIC WORKS

NAPA COUNTY DEPARTMENT
 OF PUBLIC WORKS
 1195 THIRD ST, SUITE 101
 NAPA, CA 94549



DATE: 08/21/20 SCALE: AS SHOWN
 COUNTY PROJECT NO.: PW XX-XX
 SPECIFICATION NO.: PW XX-XX
 SHEET NO.: 33 OF 35
 DWG NO.: L-10

EISA
 555 Henry Street
 Suite 800
 San Francisco, CA 94108
 415.774.8888
 www.eisa.com
 DRAWN: GREG WESSEMAN, LAND WARE
 CHECKED: JORGEN BLOMBERG, ANN BORGONOVO
 DESIGNED: JORGEN BLOMBERG, ANN BORGONOVO
 IN CHARGE: ANN BORGONOVO

PLOT DATE: 9/24/2020 8:56 AM
LAST SAVE DATE: 9/24/2020 8:53 AM
FILE: \\SFO-FILE1\ESAP\DATA\PROJECTS\2012\0120076.00 - NAPA RIVER - OAKVILLE TO OAK KNOLL\09 CAD\DWGS\FINAL\DESIGN\GROUP_D_REVEGETATION\PLANTING PALETTES NOTES & DETAILS.DWG

	Habitat Type: Transitional Oak Woodland (>20' above channel thalweg)			Acres 8.35	
	Biological Name / Common Name	Container	Quantity / ac	Spacing	Quantity Req.
Trees	Aesculus californica / California Buckeye	1-Gallon	11	± 24' O.C.	92
	Quercus agrifolia / Coast Live Oak	Treepot 4	30		251
	Quercus lobata / Valley Oak	Treepot 4	57		476
Shrubs	Baccharis pilularis / Coyote Bush	1-Gallon	39	± 10' O.C	326
	Calycanthus occidentalis / Western Spice Bush	1-Gallon	19		159
	Heteromeles arbutifolia / Toyon	1-Gallon	19		159
	Rosa californica / California Wild Rose	1-Gallon	26		217
	Rosa californica / California Wild Rose	Liner	105		877
	Symphoricarpos albus / Snowberry	1-Gallon	15		125
	Symphoricarpos albus / Snowberry	Liner	50		418
Vines	Aristolochia californica / Pipevine	1-Gallon	10		84
Herbaceous	Carex barbarae / Santa Barbara Sedge	Liner	1000	± 2' O.C.	8,350
	Elymus glaucus / Blue Wildrye	Liner	100	± 6' O.C.	835
	Elymus triticoides / Creeping Wildrye	Liner	65		543
	Stipa pulchra / Purple Needlegrass	Liner	200		1,670
	Achillea millefolium / Yarrow	Liner	26		217
Trees and Shrubs			381	± 13' O.C.	3,100
Total			1772	± 6' O.C.	14,799

	Habitat Type: Riparian Invasive Vegetation Management			Acres 7.88	
	Biological Name / Common Name	Container	Quantity / ac	Spacing	Quantity Req.
Trees	Acer macrophyllum / Big Leaf Maple	1-Gallon	2	± 30' O.C.	16
	Aesculus californica / California Buckeye	1-Gallon	2		16
	Quercus agrifolia / Coast Live Oak	Treepot 4	3		24
	Quercus lobata / Valley Oak	Treepot 4	7		55
Shrubs	Baccharis pilularis / Coyote Bush	1-Gallon	2	± 10' O.C	16
	Calycanthus occidentalis / Western Spice Bush	1-Gallon	2		16
	Heteromeles arbutifolia / Toyon	1-Gallon	2		16
	Rosa californica / California Wild Rose	1-Gallon	5		39
	Rosa californica / California Wild Rose	Liner	18	Clusters @ ± 4' O.C	142
	Symphoricarpos albus / Snowberry	1-Gallon	5		39
	Symphoricarpos albus / Snowberry	Liner	18		142
	Aristolochia californica / Pipevine	1-Gallon	10		79
Herbaceous	Carex barbarae / Santa Barbara Sedge	Liner	200	Clusters @ ± 2' O.C.	1,576
	Elymus glaucus / Blue Wildrye	Liner	33		260
	Elymus triticoides /Creeping Wildrye	Liner	46		362
Trees and Shrubs			66	± 27.5' O.C.	521
Total			355	± 12' O.C.	2,798

	Habitat Type: Upper Riparian Slope (10-20' above channel thalweg)			Acres 3.37	
	Biological Name / Common Name	Container	Quantity / ac	Spacing	Quantity Req.
Trees	Acer macrophyllum / Big Leaf Maple	1-Gallon	13	± 13' O.C.	44
	Aesculus californica / California Buckeye	1-Gallon	44		148
	Populus fremontii / Fremont's Cottonwood	Treepot 4	121		408
	Quercus agrifolia / Coast Live Oak	Treepot 4	40		135
	Quercus lobata / Valley Oak	Treepot 4	94		317
Shrubs	Baccharis pilularis / Coyote Bush	1-Gallon	70	± 10' O.C	236
	Calycanthus occidentalis / Western Spice Bush	1-Gallon	50		169
	Heteromeles arbutifolia / Toyon	1-Gallon	30		101
	Rosa californica / California Wild Rose	1-Gallon	130		438
	Rosa californica / California Wild Rose	Liner	300	Clusters @ ± 4' O.C	1,011
	Symphoricarpos albus / Snowberry	1-Gallon	130		438
	Symphoricarpos albus / Snowberry	Liner	500		1,685
	Lonicera hispidula / Honeysuckle	1-Gallon	20		67
Herbaceous	Carex barbarae / Santa Barbara Sedge	Liner	3,000	± 2' O.C.	10,110
	Elymus triticoides /Creeping Wildrye	Liner	800		2,696
	Scrophularia californica / California Bee Plant	Liner	300	± 5' O.C.	1,011
Trees/Shrubs/Vines			1,542	± 5.5' O.C.	5,197
Total			5,642	± 3' O.C.	19,014

	Habitat Type: Lower Riparian Slope (2'-10' above thalweg)			Acres 3.05	
	Biological Name / Common Name	Container	Quantity / ac	Spacing	Quantity Req.
Trees	Alnus rhombifolia / White Alder	1-Gallon	36	± 12.0' O.C.	110
	Alnus rhombifolia / White Alder	Liner	60		183
	Fraxinus latifolia / Oregon Ash	1-Gallon	29		88
	Populus fremontii / Fremont's Cottonwood	Treepot 4	60		183
	Salix laevigata / Red Willow	Treepot 4	114		348
	Quercus agrifolia / Coast Live Oak	Treepot 4	10		31
	Quercus lobata / Valley Oak	Treepot 4	21		64
Shrubs	Baccharis pilularis / Coyote Bush	1-Gallon	50	± 10' O.C	153
	Cornus sericea / Redosier Dogwood	1-Gallon	100	± 5' O.C	305
	Rosa californica / California Wild Rose	1-Gallon	130		397
	Rosa californica / California Wild Rose	Liner	300	Clusters @ ± 4' O.C	915
	Symphoricarpos albus / Snowberry	1-Gallon	130		397
	Symphoricarpos albus / Snowberry	Liner	500		1,525
Herbaceous	Carex barbarae / Santa Barbara Sedge	Liner	2,250	± 2' O.C.	6,863
	Carex praegracilis / California Field Sedge	Liner	200		610
	Elymus triticoides /Creeping Wildrye	Liner	800	± 3' O.C.	2,440
	Juncus balticus /Baltic Rush	Liner	100		305
	Juncus effusus var. brunneus / Pacific Rush	Liner	200		610
	Scrophularia californica / California Bee Plant	Liner	500		1,525
Trees and Shrubs			1,540	± 5.5' O.C.	4,699
Total			5,590	± 3' O.C.	17,052

	Habitat Type: River Wet Edge / Seasonal Wetland (<2' above thalweg)			Acres 3.19	
	Biological Name / Common Name	Container	Quantity / ac	Spacing	Quantity Req.
Herbaceous	Carex nudata / Torrent Sedge	Liner	50	± 10' O.C	160
	Carex praegracilis / California Field Sedge	Liner	800		2,552
	Eleocharis palustris / Common Spikerush	Liner	625	± 3' O.C.	1,994
	Hoita macrostachya / California Leather Root	Liner	50		160
	Juncus balticus / Baltic Rush	Liner	785		2,504
	Juncus effusus var. brunneus / Common Rush	Liner	625		1,994
	Juncus xiphioides / Iris Leaf Rush	Liner	237		756
Herbs			3,172	± 3.5' O.C.	10,120

	Upland Seeding Mix		Acres 5.53	
	Biological Name / Common Name	PLS lbs/ac	Total Lbs	Notes:
Seed	Bromus carinatus / California Brome	10	55.3	For transitional oak woodland and riparian invasive management areas.
	Elymus glaucus / Blue Wildrye	6	33.2	Estimated seed coverage approximately 25% of upland, transitional oak woodland, and riparian invasive management areas.
	Elymus triticoides / Creeping Wildrye	8	44.2	
	Eschscholzia californica / California Poppy	4	22.1	
	Festuca idahoensis / Idaho Fescue	6	33.2	
	Festuca microstachys / Small Fescue	6	33.2	
	Stipa pulchra / Purple Needlegrass	10	55.3	

	Riparian Seeding Mix		Acres 3.21	
	Biological Name / Common Name	PLS lbs/ac	Total Lbs	Notes:
Seed	Agrostis exarata / Spike Bentgrass	4	12.8	For river wet edge, lower riparian, and upper riparian.
	Bromus carinatus / California Brome	8	25.7	Estimated seed coverage approximately 50% of upper and lower riparian areas
	Lupinus bicolor/ Miniature Lupine	6	19.3	
	Elymus triticoides /Creeping Wildrye	14	44.9	
	Festuca idahoensis / Idaho Fescue	6	19.3	
	Festuca rubra / Red Fescue	4	12.8	
	Hordeum brachyantherum var. brach. / Meadow Barley	8	25.7	

CONTAINER SIZES

LINER – 2.25" SQUARE X 3" LONG

TREEPOT 4 – 4" SQUARE X 14" LONG

1-GALLON – 6" DIAMETER X 7" LONG

PLANTING NOTES

- ALL CONTAINER PLANTS ARE TO BE ALIGNED AND SPACED IN ALL DIRECTIONS AS DESIGNATED PER THESE NOTES AND DRAWINGS AND PER THE PROJECT RESTORATION ECOLOGIST RECOMMENDATIONS. CALIFORNIA ROSE AND SNOWBERRY PLANT MATERIALS SHALL BE PLANTED IN SMALL GROUPS (CLUSTERS) WITH SPACING NO LESS THAN 4 FEET ON CENTER IN GROUPS OF 3 TO 8 PLANTS WITH GREATER SPACING BETWEEN CLUSTERS TO CREATE MORE NATURALISTIC GROWTH AND SPACING CONDITIONS. ALL OTHER WOODY CONTAINER PLANT MATERIALS SHALL BE PLANTED INDIVIDUALLY WITH SPACING NO LESS THAN 10 FEET ON CENTER. SEE PLANTING DETAILS.
- CONTAINER PLANT LOCATIONS WILL BE FLAGGED (INDICATING EACH SPECIES) BY THE REVEGETATION CONTRACTOR/PROJECT RESTORATION ECOLOGIST AND APPROVED BY THE COUNTY PRIOR TO PLANT INSTALLATION.
- HERBACEOUS PLANT LINERS (SEDGES, RUSHES, AND GRASSES) SHALL BE INSTALLED IN SMALL PATCHES LOCATED ACROSS THEIR DESIGNATED PLANTING AREAS, GENERALLY COMPOSED OF SINGLE-SPECIES CLUSTERS OF VARYING SIZE AND SHAPE. INDIVIDUAL PLANTS ARE TO BE SPACED NO LESS THAN 24" APART AND NO MORE THAN 36" APART IN A TRIANGULAR PATTERN IN PATCHES OF APPROXIMATELY 3 TO 70 PLUGS. TO THE EXTENT FEASIBLE PLUGS SHALL BE PLANTED FOLLOWING THE FIRST MAJOR RAIN EVENT THAT OCCURS AFTER NOVEMBER 15TH.
- UPLAND SEEDING MIX TO BE APPLIED TO ALL TRANSITIONAL OAK WOODLAND, RIPARIAN INVASIVE VEGETATION MANAGEMENT, AND UPLAND SEEDING AREAS. RIPARIAN SEEDING MIX TO BE APPLIED TO ALL WET EDGE, LOWER RIPARIAN SLOPE, AND UPPER RIPARIAN SLOPE AREAS.



555 Valley Street
Suite 800
San Francisco, CA 94108
415.774.8388
esa.com

DRAWN:
ERIC WEISSMANN, LANE WARE

CHECKED:
JORDEN BLOMBERG, ANN BORGONOVO

DESIGNED:
JORDEN BLOMBERG, SCOTT SMITH

IN CHARGE:

PROJECT:
NAPA RIVER RESTORATION PROJECT
OAKVILLE TO OAK KNOLL
REACH - GROUP D (PHASE 1 AND PHASE 2)

SHEET TITLE
REVEGETATION
PLANTING PALETTES &
NOTES

COUNTY OF NAPA - PUBLIC WORKS

APPROVAL RECOMMENDED:
Andrew Butler, PE
Senior Engineer
Sage Construction Control and Water
Construction District
707-259-8671

DATE: 9-01-2020



NAPA COUNTY DEPARTMENT
OF PUBLIC WORKS
1195 THIRD ST, SUITE 101
NAPA, CA 94549

DATE
08/21/20

SCALE
AS SHOWN

COUNTY PROJECT NO.
PW XX-XX

SPECIFICATION NO.
PW XX-XX

SHEET NO.
34 OF 35

DWG NO.
L-11

ORIGINAL DRAWING SIZE: ANSI D 22" X 34": FOR REDUCED ENGLISH PLANS ORIGINAL SCALE IS IN INCHES