HISTORICAL ECOLOGY AND LANDSCAPE CHANGE

of the SAN GABRIEL RIVER AND FLOODPLAIN

SCCWRP Technical Report #499
Appendices A, B, and C

Eric D. Stein
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Eric D. Stein[1]*, Shawna Dark[2], Travis Longcore[3], Nicholas Hall[3], Michael Beland[2], Robin Grossinger[4], Jason Casanova[5], and Martha Sutula[1]

[1]Southern California Coastal Water Research Project
[2]California State University Northridge
[3]University of Southern California
[4]San Francisco Estuary Institute
[5]Los Angeles and San Gabriel Rivers Watershed Council

**corresponding author*
Phone 714-755-3233 | **E-mail** erics@sccwrp.org | **Web** www.sccwrp.org

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Additional information on historical ecology in southern California, along with digital products associated with this project can be obtained at:
www.csun.edu/centerforgeographicstudies/historical_ecology.html

DESIGN AND LAYOUT BY:

Jason Casanova
Los Angeles & San Gabriel Rivers Watershed Council

Linda Wanczyk
San Francisco Estuary Institute

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Additional information on historical ecology in southern California, along with the following digital products associated with this project can be obtained at the web address below:

- Appendices
- Extended project bibliography
- List of contacts and information sources
- Selected digital images, files, and data (subject to release permissions)

Website: *www.csun.edu/centerforgeographicstudies/historical_ecology.html*

APPENDIX A - DISTRIBUTION OF PLANT SPECIES ON THE SAN GABRIEL FLOODPLAIN

This appendix lists the plant species likely to be found along the San Gabriel River from Azusa to Long Beach. Species in **bold** are vouchered by a herbarium specimen. The location of those records are indicated by R. Other species may have been present based on habitat descriptions, but have not yet been confirmed by a specimen. Wetland status is indicated as obligate (99%, OBL), facultative wetland (67–99%, FACW), Facultative (34–66%, FAC), facultative upland (1–33%, FACU), or no indicator (NI).

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Aizoaceae	**Sesuvium verrucosum**	**western sea-purslane**					R
Alismataceae	**Echinodorus berteroi**	**upright burrhead**	**OBL**				R
Alismataceae	Sagittaria calycina var. calycina	hooded arrowhead	OBL				
Alismataceae	Sagittaria latifolia	tule potato	OBL				
Anacardiaceae	**Malosma laurina**	**laurel sumac**		R			
Anacardiaceae	**Rhus integrifolia**	**lemonade berry**		R			
Anacardiaceae	**Rhus ovata**	**sugar bush**		R			
Anacardiaceae	**Rhus trilobata**	**skunkbush sumac**	**NI**	R			
Apiaceae	**Apiastrum angustifolium**	**wild celery**		R			
Apiaceae	**Berula erecta**	**cutleaf water-parsnip**	**OBL**		R		
Apiaceae	Cicuta maculata var. angustifolia	water hemlock	NI				
Apiaceae	**Daucus pusillus**	**wild carrot**		R		R	
Apiaceae	Eryngium aristulatum var. parishii	Jepson's button-celery	OBL				

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Apiaceae	Hydrocotyle ranunculoides	floating marshpennywort	OBL				
Apiaceae	Hydrocotyle umbellate	manyflower marshpennywort	OBL				
Apiaceae	**Oenanthe sarmentosa californica**	**water parsley**	**OBL**		R		R
Apiaceae	Perideridia gairdneri ssp. gairdneria	Gairdner's yampah	FACW				
Apiaceae	Perideridia lemmonii	Lemmon's yampah					
Apiaceae	Sanicula bipinnata	poison sanicle					
Apocynaceae	**Apocynum cannabinum**	**Indian hemp**	**FAC**		R		
Asclepiadaceae	Asclepias eriocarpa	Indian milkweed					
Aspleniaceae	Asplenium vespertinum	western spleenwort					
Asteraceae	**Achillea millefolium**	**common yarrow**	**FACU**			R	
Asteraceae	**Ambrosia acanthicarpa**	**annual bursage**					R
Asteraceae	**Ambrosia psilostachya**	**western ragweed**	**FAC**		R		
Asteraceae	Artemisia biennis	biennial sagewort	FAC				
Asteraceae	**Artemisia californica**	**California sagebrush**					
Asteraceae	Artemisia douglasiana	mugwort	FACW				
Asteraceae	Artemisia dracunculus	herbaceous sagewort					
Asteraceae	Aster subulatus var. ligulatus	annual water-aster					
Asteraceae	Baccharis douglasii	saltmarsh baccharis	OBL				
Asteraceae	**Baccharis emoryi**	**Emory's baccharis**	**FACW**		R		R
Asteraceae	Baccharis pilularis	coyote brush					
Asteraceae	**Baccharis salicifolia**	**mulefat**	**FACW/ FACW-**	R	R		
Asteraceae	Bebbia juncea	sweetbush					
Asteraceae	Brickellia californica	California brickellbush	FACU				
Asteraceae	**Brickellia nevinii**	**Nevin's brickellia**		R			
Asteraceae	**Centromadia parryi**	**Parry's tarweed**	**FAC**				R

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Asteraceae	Centromadia pungens	common tarweed	FAC				
Asteraceae	**Chaenactis glabriuscula var. lanosa**	**yellow pincushion**		R			
Asteraceae	**Cirsium brevistylum**	**Indian thistle**			R		
Asteraceae	**Cirsium occidentale var. occidentale**	**California thistle**		R			
Asteraceae	Encelia californica	California sunflower					
Asteraceae	**Encelia farinosa**	**brittlebush**		R	R		
Asteraceae	Ericameria parishii	Parish's goldenbush					
Asteraceae	Ericameria pinifolia	pinebush		R			
Asteraceae	**Erigeron philadelphicus**	**Philadelphia fleabane**	**FAC**			R	
Asteraceae	**Eriophyllum confertiflorum**	**golden-yarrow**		R			
Asteraceae	Eriophyllum wallacei	Wallace's woolly daisy					
Asteraceae	Euthamia occidentalis	western goldenrod	OBL				
Asteraceae	**Gnaphalium bicolor**	**bicolored everlasting**		R			
Asteraceae	Gnaphalium californicum	California everlasting					
Asteraceae	Gnaphalium canescens ssp. microcephalum	white everlasting					
Asteraceae	Gnaphalium leucocephalum	white-headed cudweed					
Asteraceae	Gnaphalium palustre	western marsh cudweed	FACW				
Asteraceae	**Gnaphalium purpureum**	**purple everlasting**		R			
Asteraceae	**Gnaphalium stramineum**	**Small-flowered cudweed**		R			
Asteraceae	Grindelia stricta	coastal gumweed	FACW				
Asteraceae	**Gutierrezia californica**	**California matchweed**		R			
Asteraceae	**Gutierrezia sarothrae**	**matchweed**		R			
Asteraceae	**Hemizonia australis**	**southern tarweed**					R
Asteraceae	**Hemizonia fasciculata**	**common tarweed**				R	
Asteraceae	**Heterotheca grandiflora**	**telegraphweed**			R		

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Asteraceae	**Heterotheca sessiflora ssp. fastigiata**	**erect goldenaster**		R			
Asteraceae	**Heterotheca villosa**	**hairy false goldenaster**		R	R		
Asteraceae	**Isocoma menziesii ssp. vernonioides**	**white-flowered goldenbush**	**FACW**				R
Asteraceae	**Jaumea carnosa**	**marsh jaumea**	**OBL**				R
Asteraceae	**Lasthenia glabrata**	**yellowray goldfields**	**FACW**			R	R
Asteraceae	**Lathyrus vestitus var. vestitus**	**wild sweetpea**			R	R	
Asteraceae	Layia glandulosa	white tidy-tips					
Asteraceae	**Lepidospartum squamatum**	**scalebroom**		R			
Asteraceae	Pluchea sericea	arroweed	FACW				
Asteraceae	Psilocarphus tenellus var. globiferus	round woolly-marbles	FAC				
Asteraceae	**Senecio flaccidus var. douglasii**	**Douglas' shrubby ragwort**		R			
Asteraceae	Solidago californica	California goldenrod					
Asteraceae	Solidago confines	southern goldenrod					
Asteraceae	**Stylocline gnaphalioides**	**everlasting nest-straw**					
Asteraceae	Tetradymia comosa	cotton-thorn					
Asteraceae	Venegasia carpesioides	canyon sunflower					
Azollaceae	**Azolla filiculoides**	**mosquito fern**	**OBL**		R		
Bataceae	Batis maritime	saltwort	OBL				
Berberidaceae	**Berberis nevinii**	**Nevin's barberry**			R		
Betulaceae	Alnus rhombifolia	white alder	FACW				
Blechnaceae	Woodwardia fimbriata	giant chain fern	FACW+				
Boraginaceae	**Cryptantha intermedia**	**clearwater cryptantha**		R			
Boraginaceae	Cryptantha micrantha var. micrantha	purple-root cryptantha					
Boraginaceae	**Cryptantha muricata**	**prickly cryptantha**		R			
Boraginaceae	**Heliotropium curassavicum**	**seaside heliotrope**	**OBL**			R	R

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Boraginaceae	Pectocarya linearis	sagebrush combseed					
Boraginaceae	**Pectocarya penicillata**	**sleeping combseed**		R			
Brassicaceae	Cardamine californica	California toothwort	UPL				
Brassicaceae	**Cardamine oligosperma**	**bitter cress**	**FACW**				R
Brassicaceae	**Descurainia pinnata**	**western tansymustard**			R		
Brassicaceae	**Erysimum capitatum**	**western wallflower**		R			
Brassicaceae	Hutchinsia procumbens	prostrate hutchinsia					
Brassicaceae	Lepidium dictyotum var. acutidens	alkali pepperweed	OBL				
Brassicaceae	**Lepidium nitidum**	**shining pepperweed**		R			
Brassicaceae	**Rorippa curvisiliqua**	**curvepod yellowcress**	**OBL**	R			
Brassicaceae	Rorippa gambelii	Gambel's water cress	OBL				
Brassicaceae	Rorippa nasturtium-aquaticum	water cress	OBL				
Brassicaceae	**Thysanocarpus curvipes**	**common fringe-pod**		R			
Cactaceae	**Opuntia occidentalis**	**prickly pear**		R			
Cactaceae	**Opuntia parryi**	**cane cholla**		R			
Campanulaceae	Lobelia cardinalis var. pseudosplendens	Scarlet lobelia	OBL				
Campanulaceae	Lobelia dunnii var. serrata	Dunn's lobelia	FACW-				
Caprifoliaceae	Lonicera subspicata var. denudata	southern honeysuckle					
Caprifoliaceae	**Sambucus mexicana**	**blue elderberry**	**FAC**	R	R		
Caryophyllaceae	Arenaria paludicola	marsh sandwort	OBL				
Caryophyllaceae	Spergularia macrotheca	sticky sandspurry	FAC+				
Caryophyllaceae	**Spergularia marina**	**salt marsh sand spurry**	**OBL**				R
Ceratophyllaceae	Ceratophyllum demersum	hornwort	OBL				
Chenopodiaceae	Atriplex lentiformis	big saltbush	FAC				
Chenopodiaceae	Atriplex patula	fathen saltweed	FACW				

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Chenopodiaceae	Atriplex serenana	saltscale	FAC				
Chenopodiaceae	**Chenopodium californicum**	**soaproot**		R			
Chenopodiaceae	Chenopodium rubrum	red goosefoot					
Chenopodiaceae	Monolepis nuttalliana	Nuttall's povertyweed	FACW				
Chenopodiaceae	Nitrophila occidentalis	boraxweed	FACW				
Chenopodiaceae	**Salicornia virginica**	**pickleweed**	**OBL**				R
Chenopodiaceae	Suaeda moquinii	bush seepweed	FAC+				
Chenopodiaceae	**Suaeda taxifolia**	**woolly seablite**	**FACW+**				R
Chenopodiaceae	Sueda calcioliformis	Pursh seepweed	FACW+				
Chenopodiaceae	**Sueda esteroa**	**estuary seablite**					R
Cistaceae	**Helianthemum scoparium**	**common sun-rose**		R			
Convolvulaceae	**Calystegia macrostegia ssp. Intermedia**	**south coast morning-glory**			R		
Convolvulaceae	Calystegia sepium	western hedge bindweed	OBL				
Convolvulaceae	**Cressa truxillensis**	**spreading alkaliweed**	**FACW**				R
Cornaceae	**Cornus glabrata**	**brown dogwood**	**FACW**		R		
Cornaceae	**Cornus sericea**	**creek dogwood**	**FACW**		R		
Crassulaceae	**Crassula connata**	**sand pygmyweed**	**FAC**	R			
Crassulaceae	**Crassula tillaea**	**moss pygmyweed**		R			
Crassulaceae	**Dudleya lanceolata**	**lanceleaf liveforever**		R			
Cucurbitaceae	Cucurbita foetidissima	calabazilla					
Cucurbitaceae	**Marah macrocarpus**	**southern wild-cucumber**		R			
Cupressaceae	**Juniperius californica**	**California juniper**		R			
Cuscutaceae	**Cuscuta californica**	**chaparral dodder**		R			
Cuscutaceae	**Cuscuta indecora**	**bigseed alfalfa dodder**			R		
Cuscutaceae	**Cuscuta salina**	**saltmarsh dodder**					R

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Cuscutaceae	**Cuscuta subinclusa**	**canyon dodder**		R	R		
Cyperaceae	**Carex alma**		**FACW***		R		
Cyperaceae	**Carex lanuginose**	**woolly sedge**	**OBL**		R		
Cyperaceae	**Carex praegracilis**	**clustered field sedge**	**FACW-**		R		
Cyperaceae	**Carex spissa**	**San Diego sedge**	**FAC***		R		
Cyperaceae	Cladium californicum	California sawgrass	OBL				
Cyperaceae	**Cyperus eragrostis**	**tall flatsedge**	**FACW**		R		
Cyperaceae	**Cyperus erythrorhizos**	**redroot flatsedge**	**OBL**				R
Cyperaceae	Cyperus laevigatus	smooth flatsedge	FACW+				
Cyperaceae	**Cyperus niger**	**black flatsedge**	**FACW+**				R
Cyperaceae	Eleocharis acicularis	needle spikerush	OBL				
Cyperaceae	**Eleocharis macrostachya**	**common spikerush**	**OBL**		R		
Cyperaceae	**Eleocharis montevidensis**	**sand spikerush**	**FACW**		R		R
Cyperaceae	Eleocharis rostellata	beaked spikerush	OBL				
Cyperaceae	Isolepis cernua	annual tule	OBL				
Cyperaceae	**Schoenoplectus acutus**	**hardstem bullrush**			R		
Cyperaceae	Schoenoplectus robustus	buill tule	OBL				
Cyperaceae	**Scirpus americanus**	**American tule**	**OBL**		R		R
Cyperaceae	**Scirpus californicus**	**California tule**	**OBL**		R		R
Cyperaceae	**Scirpus maritimus**	**prairie bulrush**	**OBL**				R
Cyperaceae	**Scirpus microcarpus**	**panicled bulrush**	**OBL**				
Elatinaceae	Elatine brachysperma	short-seed waterwort	FACW				
Equisetaceae	**Equisetum arvense**	**Common horsetail rush**	**FAC**		R		
Equisetaceae	**Equisetum laevigatum**	**smooth horsetail**	**FACW**		R	R	
Equisetaceae	**Equisetum telmateia**	**giant horsetail**	**OBL**		R		

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Euphorbiaceae	**Chamaesyce melanadenia**	**squaw spurge**		R			
Euphorbiaceae	**Croton californicus**	**California croton**		R	R		R
Fabaceae	Amorpha fruticosa	western false-indigo	FAC				
Fabaceae	Astragalus pycnostachyus	marsh milk-vetch	OBL				
Fabaceae	**Astragalus trichopodus var. lonchus**	**Santa Barbara milk-vetch**					R
Fabaceae	Astragulus tener	alkali milk-vetch	FACW				
Fabaceae	**Lotus heermannii**	**Heermann's lotus**			R	R	
Fabaceae	**Lotus oblongifolia**	**streambank bird's-foot trefoil**			R	R	
Fabaceae	**Lotus purshianus**	**Spanish clover**		R	R		R
Fabaceae	Lotus salsuginosus	coastal lotus					
Fabaceae	**Lotus scoparius**	**deerweed**		R	R		R
Fabaceae	**Lotus strigosus**	**hairy lotus**		R			
Fabaceae	**Lupinus bicolor**	**miniature lupine**		R			R
Fabaceae	Lupinus concinnus	bajada lupine					
Fabaceae	Lupinus latifolius	broadleaf lupine					
Fabaceae	**Lupinus succulentus**	**succulent lupine**		R			R
Fabaceae	**Lupinus truncatus**	**truncated lupine**		R			
Fabaceae	**Trifolium obtusiflorum**	**creek clover**	**FAC**				
Fabaceae	**Trifolium wormskioldii**	**springbank clover**	**FACW**			R	
Fagaceae	Quercus agrifolia	coast live oak					
Fagaceae	Quercus engelmannii	Engelmann oak					
Frankeniaceae	**Frankenia salina**	**alkali seaheath**	**FACW+**				R
Gentianaceae	**Centaurium exaltatum**	**spring-loving centaury**	**FACW**	R	R		
Grossulariaceae	**Ribes aureum var. aureum**	**golden currant**	**FACW**	R			
Grossulariaceae	**Ribes divaricatum var. parishii**	**spreading gooseberry**	**FACW**		R	R	

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Grossulariaceae	**Ribes indecorum**	**white-flowering currant**		R			
Hydrocharitaceae	Najas flexilis	nodding waternymph	OBL				
Hydrocharitaceae	**Najas marina**	**marine water nymph**	**OBL**	R			
Hydrophyllaceae	**Eriodictyon trichocalyx**	**hairy yerba santa**		R			
Hydrophyllaceae	Nama stenocarpum	mud fiddleleaf	FACW				
Hydrophyllaceae	**Phacelia cicutaria**	**caterpillar phacelia**		R			
Hydrophyllaceae	**Phacelia distans**	**common phacelia**		R			
Hydrophyllaceae	**Phacelia stellaris**	**Brand's phacelia**					R
Iridaceae	**Sisyrinchium bellum**	**blue-eyed grass**	**FAC**		R		
Juglandaceae	**Juglans californica**	**Southern California black walnut**	**FAC**	R			
Juncaceae	**Juncus acutus ssp. leopoldii**	**southwestern spiny rush**	**FACW**				R
Juncaceae	**Juncus ambiguus**	**saline toad rush**			R		
Juncaceae	Juncus arcticus spp. littoralis	wire rush	OBL				
Juncaceae	**Juncus bufonius**	**toad rush**	**FACW+**		R		R
Juncaceae	Juncus lesueurii	salt rush	FACW				
Juncaceae	**Juncus mexicanus**	**mexican rush**	**FACW**		R		
Juncaceae	**Juncus phaeocephalus**	**brownhead rush**	**FACW**		R		
Juncaceae	**Juncus textilis**	**basket rush**	**OBL**		R		
Juncaceae	Juncus torreyi	Torrey's rush	FACW+				
Juncaginaceae	**Triglochin maritima**	**seaside arrowgrass**	**OBL**		R		R
Lamiaceae	**Lycopus americanus**	**American water horehound**	**OBL**		R		
Lamiaceae	Lycopus asper	rough bugleweed	OBL				
Lamiaceae	**Monardella lanceolata**	**Mustang mint**		R			
Lamiaceae	Salvia carduacea	thistle sage					
Lamiaceae	**Salvia columbariae**	**chia sage**		R			

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Lamiaceae	**Salvia mellifera**	**black sage**		R			
Lamiaceae	**Scutellaria bolanderi**	**Bolander's skullcap**	**FACW**		R		
Lamiaceae	Stachys ajugoides	bugle hedgenettle	OBL				
Lamiaceae	**Stachys albens**	**whitestem hedgenettle**	**OBL**		R		
Lamiaceae	Stachys bullata	California hedgenettle					
Lemnaceae	Lemna gibba	swollen duckweed	OBL				
Lemnaceae	Lemna minor	common duckweed	OBL				
Liliaceae	Brodiaea minor	dwarf brodiaea					
Liliaceae	**Dichelostemma capitatum**	**blue dicks**		R			
Liliaceae	**Yucca whipplei**	**chaparral yucca**		R			
Limnanthaceae	Limnanthes douglasii	Douglas' meadowfoam	OBL				
Loasaceae	Mentzelia gracilenta	slender blazing star					
Loasaceae	Mentzelia laevicaulis	smooth-stem blazing star					
Lythraceae	Lythrum californicum	California loostrife	OBL				
Malvaceae	Malacothamnus davidsonii	Davidson's bush mallow					
Malvaceae	**Malacothamnus fasciculatus**	**chaparral mallow**		R			
Malvaceae	**Malvella leprosa**	**alkali mallow**	**FAC***				R
Malvaceae	Sidalcea neomexicana	salt spring checkerbloom	FACW				
Nyctaginaceae	**Mirabilis californica**	**California four o'clock**		R			
Oleaceae	Fraxinus latifolia	Oregon ash	FACW				
Oleaceae	**Fraxinus vetulina**	**velvet ash**	**FACW**	R	R		
Onagraceae	**Camissonia bistorta**	**California sun cup**		R			
Onagraceae	**Camissonia californica**	**California suncup**			R		
Onagraceae	**Camissonia cheiranthifolia ssp. suffruticosa**	**beach evening-primrose**					R
Onagraceae	Camissonia contorta	plains evening-primrose					

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Onagraceae	**Camissonia intermedia**	**intermediate suncup**		R			
Onagraceae	**Camissonia strigulosa**	**sandysoil suncup**					R
Onagraceae	**Clarkia purpurea**	**purple clarkia**		R			
Onagraceae	Epilobium canum	California fuchsia					
Onagraceae	**Epilobium ciliatum ssp. ciliatum**	**fringed willowherb**	**FACW**		R	R	R
Onagraceae	Ludwigia peploides ssp. peploides	floating primrose willow	OBL				
Onagraceae	**Oenothera elata ssp. hookeri**	**Hooker's evening-primrose**	**FACW**		R		
Orchidaceae	**Epipactis gigantea**	**stream orchid**	**OBL**	R	R		
Papaveraceae	**Dicentra chrysantha**	**golden eardrops**		R			
Papaveraceae	Eschscholzia californica	California poppy					
Papaveraceae	Platystigma linearis	narrow-leaved meconella					
Papaveraceae	Romneya coulteri	Coulter's matilija poppy					
Papaveraceae	Stylomecon heterophylla	wind poppy					
Plantaginaceae	Plantago erecta	California plantain					
Platanaceae	**Platanus racemosa**	**western sycamore**	**FACW**	R		R	
Plumbaginaceae	Limonium californicum	California sealavender	OBL				
Poaceae	**Agrostis exarata**	**spike bentgrass**	**FACW**	R			
Poaceae	**Agrostis viridis**	**green bentgrass**		R	R		
Poaceae	**Bromus carinatus**	**California brome**		R	R		R
Poaceae	**Distichlis spicata**	**saltgrass**	**FACW**		R		
Poaceae	Elymus glaucus ssp. glaucus	blue wildrye	FACU				
Poaceae	Elymus trachycaulus ssp. subsecundus	slender wheatgrass	NI*				
Poaceae	**Eragrostis mexicana ssp. virescens**	**Mexican lovegrass**	**FAC**	R			R
Poaceae	Eragrostis pilosa	Indian lovegrass	FACU				
Poaceae	**Hordeum brachyantherum ssp. californicum**	**meadow barley**	**FACW**		R		R

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Poaceae	**Hordeum depressum**	**alkali barley**	**NI**				
Poaceae	**Koeleria macrantha**	**prairie junegrass**			R		
Poaceae	**Leptochloa uninervia**	**Mexican sprangletop**					R
Poaceae	**Leymus condensatus**	**giant rye**	**FACU**	R			
Poaceae	**Leymus triticoides**	**beardless wildrye**	**FAC+**		R		
Poaceae	Monanthochloe littoralis	shoregrass	OBL				
Poaceae	**Muhlenbergia microsperma**	**littleseed muhly**		R			
Poaceae	Paspalum distichum	knotgrass	OBL	R			
Poaceae	Phalaris lemmonii	Lemmon's canarygrass	FACW-				
Poaceae	**Phalaris minor**	**littleseed canarygrass**			R		R
Poaceae	Puccinellia nuttalliana	Nuttall's alkaligrass	OBL				
Poaceae	Sporobolus airoides	alkali sacaton	FAC+				
Poaceae	**Vulpia octoflora**	**sixweeks fescue**		R			
Polemoniaceae	**Allophyllum divaricatum**	**purple false-gilia**			R		
Polemoniaceae	**Eriastrum sapphirinum subsp. dasyanthum**	**sapphire woollystar**		R	R	R	
Polemoniaceae	Gilia achilleifolia	California gilia					
Polemoniaceae	**Gilia angelensis**	**chaparral gilia**		R			
Polemoniaceae	**Gilia capitata ssp. abrotanifolia**	**blue field-gilia**					R
Polemoniaceae	Leptodactylon californicum	prickly phlox					
Polemoniaceae	**Linanthus aureus**	**golden gilia**			R		
Polemoniaceae	**Linanthus dianthiflorus**	**fringed linanthus**		R			
Polemoniaceae	Linanthus parviflorus	common linanthus					
Polemoniaceae	**Navarretia atractyloides**	**hollyleaf pincushionplant**					
Polemoniaceae	**Navarretia hamata**	**hooked pincushionplant**		R			
Polemoniaceae	**Navarretia prostrata**	**prostrate pincushionplant**	**OBL**			R	

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Polygonaceae	**Chorizanthe parryi**	**Parry's spineflower**		R			
Polygonaceae	**Chorizanthe procumbens**	**prostrate spineflower**		R			
Polygonaceae	**Chorizanthe staticoides**	**Turkish rugging**		R			
Polygonaceae	**Eriogonum fasciculatum ssp. foliosum**	**California buckwheat**		R			
Polygonaceae	**Eriogonum gracile**	**slender buckwheat**		R	R		
Polygonaceae	**Eriogonum thurberi**	**Thurber's buckwheat**			R	R	
Polygonaceae	**Mucronea californica**	**California spineflower**			R		
Polygonaceae	Polygonum hydropiperoides	swamp smartweed	OBL				
Polygonaceae	**Polygonum lapathifolium**	**curlytop knotweed**	OBL		R		R
Polygonaceae	**Polygonum punctatum**	**Common water smartweed**	OBL		R		
Polygonaceae	**Pterostegia drymarioides**	**woodland pterostegia**		R			
Polygonaceae	Rumex hymenosepalus	wild rhubarb					
Polygonaceae	**Rumex salicifolius**	**willow dock**	OBL		R		
Portulacaceae	**Calandrinia ciliata**	**red maids**	FACU*	R			
Portulacaceae	Claytonia perfoliata	miner's lettuce	FAC				
Portulacaceae	Montia perfoliata	Indian Lettuce					
Potamogetonaceae	Potamogeton nodosus	longleaf pondweed	OBL				
Potamogetonaceae	**Potamogeton pectinatus**	**fennel-leaved pondweed**					
Potamogetonaceae	Potamogeton pusillus	small pondweed	OBL				
Potamogetonaceae	Ruppia maritima	widgeongrass	OBL				
Primulaceae	**Samolus parviflorus**	**water pimpernel**	**OBL**		R		
Pteridaceae	Adiantum jordanii	California maiden-hair	FACW				
Pteridaceae	**Pityrogramma triangularis**	**goldenback fern**		R			
Ranunculaceae	Clematis lasiantha	pipestem clematis					
Ranunculaceae	Clematis ligusticifolia	creek clematis	FAC				

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Ranunculaceae	**Delphinium cardinale**	**scarlet larkspur**		R			
Ranunculaceae	Ranunculus aquatilus	whitewater crowfoot	OBL				
Ranunculaceae	Ranunculus cymbalaria	alkali buttercup	OBL				
Resedaceae	Oligomeris linifolia	lineleaf whitepuff					
Rhamnaceae	**Ceanothus cuneatus**	**buckbrush**		R			
Rhamnaceae	**Rhamnus crocea**	**redberry buckthorn**		R	R		
Rosaceae	Aphanes occidentalis	Lady's mantle					
Rosaceae	Cercocarpus betuloides	birch-leaf mountain-mahogany					
Rosaceae	**Horkelia cuneata**	**wedge-leaf horkelia**		R			
Rosaceae	Potentilla anserina	silver-weed cinquefoil	OBL				
Rosaceae	Rosa californica	California wild rose	FAC+				
Rosaceae	**Rubus ursinus**	**California blackberry**	**FACW***				
Rubiaceae	**Galium angustifolium**	**narrowleaf bedstraw**		R			
Rubiaceae	Galium trifidum	threepetal bedstraw	OBL				
Salicaceae	**Populus balsamifera ssp. trichocarpa**	**black cottonwood**	**FACW**		R		
Salicaceae	**Populus fremontii**	**Fremont cottonwood**	**FACW**				
Salicaceae	**Salix exigua**	**sandbar willow**	**OBL**		R		
Salicaceae	**Salix gooddingii**	**Goodding's black willow**	**OBL**	R			
Salicaceae	**Salix laevigata**	**red willow**				R	
Salicaceae	**Salix lasiolepis**	**arroyo willow**	**FACW**	R	R		
Salicaceae	**Salix lucida ssp. lasiandra**	**yellow willow**	**OBL**			R	
Saururaceae	Anemopsis californica	yerba mansa	OBL				
Scrophulariaceae	Antirrhinum coulterianum	Coulter's snapdragon					
Scrophulariaceae	**Antirrhinum nuttallianum ssp. nuttallianum**	**Nuttall's snapdragon**					R
Scrophulariaceae	Castilleja affinis spp. affinis	Indian paintbrush					

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Scrophulariaceae	**Castilleja exserta**	**purple owl's-clover**		R	R		
Scrophulariaceae	**Castilleja minor ssp. spiralis**	**lesser paintbrush**	**OBL**		R	R	
Scrophulariaceae	Castilleja tenuis	hairy owl's-clover	FAC				
Scrophulariaceae	**Cordylanthus maritimus**	**salt marsh bird's-beak**	**OBL**				R
Scrophulariaceae	Keckiella cordifolia	climbing penstemon					
Scrophulariaceae	**Linaria canadensis var. texana**	**blue toad-flax**		R			
Scrophulariaceae	**Mimulus cardinalis**	**scarlet monkeyflower**	**OBL**		R		
Scrophulariaceae	Mimulus floribundus	manyflowered monkeyflower	OBL				
Scrophulariaceae	Mimulus fremontii	Fremont's monkeyflower					
Scrophulariaceae	**Mimulus guttatus**	**seep monkeyflower**	**OBL**				
Scrophulariaceae	Mimulus parishii	Parish's monkeyflower	FACU				
Scrophulariaceae	**Mimulus pilosa**	**false monkeyflower**	**FACW**	R			
Scrophulariaceae	**Penstemon spectabilis**	**showy penstemon**		R			
Solanaceae	**Datura wrightii**	**Jimson weed**		R			R
Solanaceae	**Nicotiana quadrivalvis**	**Indian tobacco**	**FAC**	R			
Solanaceae	**Petunia parviflora**	**wild petunia**					R
Solanaceae	**Solanum americanum**	**common nightshade**	**FAC**				
Solanaceae	**Solanum douglasii**	**Douglas' nightshade**	**FAC**	R	R	R	
Solanaceae	**Solanum xanti**	**chaparral nightshade**		R			
Typhaceae	Sparganium erectum ssp. stoloniferum	simplestem bur-reed	OBL	R			R
Typhaceae	Typha angustifolia	narrowleaf cattail					
Typhaceae	Typha latifolia	broadleaf cattail	OBL				
Urticaceae	**Parietaria hespera**	**western pellitory**		R			
Urticaceae	**Urtica urens**	**dwarf nettle**				R	
Verbenaceae	Phyla lanceolata	lanceleaf fogfruit	FACW				

Family	Species	Common Name	Wetland?	Upper Floodplain	Whittier Narrows	Southern Floodplain	Tidal Fringe
Verbenaceae	**Verbena lasiostachys**	**western verbena**	**FAC-**	R			
Violaceae	Viola pedunculata	California Golden Violet					
Viscaceae	Phoradendron macrophyllum	big leaf mistletoe					
Viscaceae	Phoradendron villosum	oak mistletoe					
Vitaceae	**Vitis girdiana**	**Southern california grape**			R	R	
Zannichelliaceae	Zannichellia palustris	horned pondweed	OBL				
Zosteraceae	Zostera marina	eel-grass	OBL				

APPENDIX B - HISTORIC PLANT COMPENDIUM FOR SAN GABRIEL WATERSHED

Location information for plant species of the San Gabriel River. Alphanumeric references are herbarium specimen records that can be accessed at the Jepson Online Interchange. Species documented within study area are in **bold**.

Family	Species	Location description and references
Aizoaceae	**Sesuvium verrucosum**	**Occasional in low saline places (Abrams 1904). Alamitos Bay, Long Beach RSA402667, UCR144075**
Alismataceae	**Echinodorus berteroi**	**Occasional along streams and banks of ponds (Abrams 1904). Limited to a few localities, on the edges of ponds and lakes, Garvanza; Alamitos; Elsinore; Lakeside (Davidson and Moxley 1923). Freshwater marsh RSA355652.**
Alismataceae	Sagittaria calycina var. calycina	Ballona Creek (Abrams 1904)
Alismataceae	Sagittaria latifolia	Occasional on margins of ponds about Los Angeles (Abrams 1904). Occasional in zanjas and along stream borders Los Angeles and San Bernardino, 1890 (Davidson and Moxley 1923).
Anacardiaceae	**Malosma laurina**	**Very common in the foothills and extending well up into the chaparral; less common in the interior (Abrams 1904). Intermediate and more mature zones of San Gabriel Wash (Smith 1980). UCR125611.**
Anacardiaceae	**Rhus integrifolia**	**Mature zones of San Gabriel Wash (Smith 1980). RSA683810. UC1787300.**
Anacardiaceae	**Rhus ovata**	**Approx. 300 yds N of Hwy 66 in Irwindale, ca. 500 yds E of the San Gabriel River Channel UCR100059.**
Anacardiaceae	**Rhus trilobata**	**Azusa UC1184972**
Apiaceae	**Apiastrum angustifolium**	**Common in sandy soil in the foothills and valleys (Abrams 1904). UCR125625.**
Apiaceae	**Berula erecta**	**Occasional along watercourses (Abrams 1904). Bassett near El Monte RSA98334.**
Apiaceae	Cicuta maculata var. angustifolia	Frequent in marshes toward the coast (Abrams 1904).

Family	Species	Location description and references
Apiaceae	**Daucus pusillus**	**Irwindale, Azusa UCR125554. Rivera UC56506.**
Apiaceae	Eryngium aristulatum var. parishii	In low heavy ground toward the coast (Abrams 1904).
Apiaceae	**Hydrocotyle ranunculoides**	**Common in pools or slow-running streams, especialy toward the coast (Abrams 1904). Rio Hondo, shallow sluggish stream UCR678442.**
Apiaceae	**Hydrocotyle umbellata**	**Frequent on boarders of marshes and streams (Abrams 1904). Los Angeles River UC56503.**
Apiaceae	**Oenanthe sarmentosa californica**	**Frequent along slow-running streams (Abrams 1904). Lexington Wash, Bixby Ranch Long Beach POM223067, RSA458913, RSA98322.**
Apiaceae	Perideridia gairdneri ssp. gairdneria	Occasional along borders of marshes (Abrams 1904).
Apiaceae	Perideridia lemmonii	Occasional in marshes toward the coast (Abrams 1904).
Apiaceae	Sanicula bipinnata	Los Angeles River, San Fernando Valley; Oak Knoll, Pasadena (Abrams 1904).
Apocynaceae	**Apocynum cannabinum**	**Occasional in moist places along streams (Abrams 1904). Borders of marshes and mountain streams; not common (Davidson and Moxley 1923). Whittier Narrows RSA624645.**
Aspleniaceae	Asplenium vespertinum	San Gabriel Canyon (Davidson and Moxley 1923).
Asteraceae	**Achillea millefolium**	**San Gabriel River channel, about 600 m. north of San Gabriel River Parkway bridge, city of Pico Rivera RSA654591.**
Asteraceae	**Ambrosia acanthicarpa**	**Bryant Ranch, near Long Beach; T4S, R11W, SE/2 S27**
Asteraceae	**Ambrosia psilostachya**	**A common weed inlow ground, especially in our coast valleys (Abrams 1904). Rio Hondo at San Gabriel Blvd., near Whittier Narrows Dam and Hwy 19 UCR109690.**
Asteraceae	Artemisia biennis	Occasional in low moist ground about Los Angeles (Abrams 1904).
Asteraceae	**Artemisia californica**	**Mature zone of San Gabriel Wash (Smith 1980).**
Asteraceae	Artemisia douglasiana	Common in low ground and along streams in the foothills (Abrams 1904).
Asteraceae	Artemisia dracunculus	Frequent in the valleys and foothills throughout our range (Abrams 1904).
Asteraceae	Aster subulatus var. ligulatus	Frequent in low subsaline places, especially along the coast (Abrams 1904).
Asteraceae	Baccharis douglasii	Occasional along streams in our coast region (Abrams 1904). Cienega Swamp UC63382. Los Angeles River UC63383. "Nigger" Slough, Gardena.UCR678877.
Asteraceae	**Baccharis emoryi**	**Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. RSA678873.**
Asteraceae	Baccharis pilularis	

Family	Species	Location description and references
Asteraceae	**Baccharis salicifolia**	**Very common along all our streams throughout our range (Abrams 1904). Pioneer zone of San Gabriel Wash (Smith 1980). "Wash" of Claremont UC75847. San Gabriel Canyon UC893723. San Gabriel River channel, about 100 m. south of Valley Boulevard bridge, city of El Monte RSA654592.**
Asteraceae	Bebbia juncea	Occasional in dry washes (Abrams 1904).
Asteraceae	Brickellia californica	Occasional in the canyons of the San Gabriel and Santa Ana Mountains (Abrams 1904). Arroyo Seco, Pasadena UC472353.
Asteraceae	**Brickellia nevinii**	**San Gabriel River Canyon: N of Azusa, river wash N of Hwy 39, ca 2 road mi N of Foothill Blvd. UCR104148.**
Asteraceae	**Centromadia parryi**	**Brackish flats toward the coast (Abrams 1904). Texaco Bryant Lease Oil Field, approx. 91.6 m SE of the intersection of Studebaker Rd. and Westminister Ave. 412 m W of San Gabriel River UCR672607.**
Asteraceae	Centromadia pungens	Common in the plains in heavy, rather moist soil (Abrams 1904).
Asteraceae	**Chaenactis glabriuscula var. lanosa**	**Common on plains and foothills, especialy in sandy soil (Abrams 1904). UCR125555. Azuza UC1211166.**
Asteraceae	**Cirsium brevistylum**	**El Monte SBBG98321.**
Asteraceae	**Cirsium occidentale var. occidentale**	**Long abandoned gravel pit on boundary between Irwindale and Azusa, east of Irwindale Ave. and south of Foothill Blvd, north edge of 210 Fwy east of the San Gabriel River channel UCR125615.**
Asteraceae	Encelia californica	Very common in the lower portions of the chaparral belt of all the mountains; also on the low hills about Los Angeles and along the coast (Abrams 1904)
Asteraceae	**Encelia farinosa**	**UCR126341**
Asteraceae	Ericameria parishii	Occasional in the lower portions of the chaparral belt of the San Gabriel, San Bernardino, and Santa Ana Ranges (Abrams 1904).
Asteraceae	**Ericameria pinifolia**	**Frequent in the foothils of the San Gabriel Mountains in the lower altitudes of the chaparral belt (Abrams 1904). SBBG54492. UC407070. UCR125608. Mature zone of San Gabriel Wash (Smith 1980).**
Asteraceae	**Erigeron philadelphicus**	**Occasional in low moist ground (Abrams 1904). Rivera UC63360.**
Asteraceae	**Eriophyllum confertiflorum**	**San Gabriel wash near Azusa UC1211059. UCR126237.**
Asteraceae	Eriophyllum wallacei	Dry washes in the interior valleys. La Canada; San Fernando Valley (Abrams 1904).
Asteraceae	Euthamia occidentalis	Frequent in low ground and along streams in our valleys and foothills (Abrams 1904).
Asteraceae	**Gnaphalium bicolor**	**UCR126230**
Asteraceae	Gnaphalium californicum	Rather common on the dry plains and foothills (Abrams 1904).

Family	Species	Location description and references
Asteraceae	Gnaphalium canescens ssp. microceph-alum	Frequent in dry washes and in the chaparral belt (Abrams 1904).
Asteraceae	Gnaphalium leucocephalum	Occasional in dry washes (Abrams 1904).
Asteraceae	Gnaphalium palustre	Occasional along river bottoms and on the margins of ponds (Abrams 1904).
Asteraceae	**Gnaphalium purpureum**	
Asteraceae	**Gnaphalium stramineum**	**UCR125613**
Asteraceae	Grindelia stricta	Borders of salt marshes along the coast (Abrams 1904).
Asteraceae	**Gutierrezia californica**	**Mature zone of San Gabriel Wash (Smith 1980). Common on the interior plains and foothills, especially common on the fans at the base of the mountains (Abrams 1904).**
Asteraceae	**Gutierrezia sarothrae**	**UC87981**
Asteraceae	**Hemizonia australis**	**in dry saline areas below open grass-dominated hillside City of Long Beach; below the State University near Pacific Coast Highway; elev. 10 ft RSA292471**
Asteraceae	**Hemizonia fasciculata**	**Very common and general on the plains and lower hills (Abrams 1904). Downey UC89082.**
Asteraceae	**Heterotheca grandiflora**	**Common in waste places in sandy soil (Abrams 1904). El Monte RSA602379. Whittier JEPS30536. Rio Hondo at Valley Boulevard UCR108321**
Asteraceae	**Heterotheca sessiflora ssp. fastigiata**	**Frequent on dry plains and in the lower portions of the chaparral belt (Abrams 1904). UCR126233.**
Asteraceae	**Heterotheca villosa**	**Pioneer zone of San Gabriel Wash (Smith 1980). City of Irwindale, near junction of Foothill Blvd & Irwindale Ave., between gravel pit and the San Gabriel River channel UCR42568. Rio Hondo at Valley Boulevard**
Asteraceae	**Isocoma menziesii ssp. vernonioides**	**Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. 33 451/2 N, 118 61/2 W USGS 71/2' Los Alamitos quad RSA678916.**
Asteraceae	**Jaumea carnosa**	**Common in salt marshes along the coast (Abrams 1904). 100-150 ft w; at extreme se corner of Pacific Western Oil. Co. lease | State Highway | Bryant Ranch | UC729499.**
Asteraceae	**Lasthenia glabrata**	**Common in saline marshes, especially along the coast (Abrams 1904). Near Gardena, Nig-ger Slough UCR685099. Norwalk JEPS35389. Bryant Ranch, Long Beach RSA4774.**
Asteraceae	**Lathyrus vestitus var. vestitus**	**In alluvial sand 2 mi e, El Monte, San Gabriel River UC913066. Rivera UC53938**
Asteraceae	**Lepidospartum squamatum**	**Frequent in dry washes in all our interior valleys (Abrams 1904). Smith 1980 -- pioneer, intermediate and mature. UCR126236.**
Asteraceae	Pluchea sericea	Rather common along the streams, especially in the interior valleys (Abrams 1904).
Asteraceae	Psilocarphus tenellus var. globiferus	Frequent on the plains and hills, especially in exsiccated places (Abrams 1904).

Family	Species	Location description and references
Asteraceae	**Senecio flaccidus var. douglasii**	**Azusa, Santa Fe Dam RSA647965 UC75034.**
Asteraceae	Solidago californica	Frequent in open places in the lower portions of the chaparral belt in th San Gabriel and Santa Ana ranges (Abrams 1904).
Asteraceae	Solidago confinis	Occasional in low marshy places (Abrams 1904).
Asteraceae	**Stylocline gnaphalioides**	**Isolated floodplain, City of Irwindale, near junction of Foothill Blvd & Irwindale Ave., between gravel pit and the San Gabriel River channel UCR42537.**
Asteraceae	Tetradymia comosa	Dry washes of the interior valleys, perhaps not within our region… (Abrams 1904).
Asteraceae	Venegasia carpesioides	Frequent in the Santa Monica, San Gabriel and Santa Ana Mountains (Abrams 1904).
Azollaceae	**Azolla filiculoides**	**El Monte UC211178.**
Bataceae	Batis maritima	Frequent in marshes on the seashore from Redondo to San Diego (Davidson and Moxley 1923).
Berberidaceae	**Berberis nevinii**	**[El Monte] Library, [El Monte] RSA651197.**
Betulaceae	Alnus rhombifolia	Common along mountain streams and occasionally extending down into the valleys (Abrams 1904). Near San Gabriel, W.H. Brewer UC5342. Often follows living streams into the edges of the valleys (Abrams 1910).
Blechnaceae	Woodwardia fimbriata	Frequent in all our canyons in wet, shaded places up to 1200 m. (Davidson & Moxley 1923).
Boraginaceae	**Cryptantha intermedia**	**Azusa/Irwindale UCR126251 UCR125559 UCR42565.**
Boraginaceae	Cryptantha micrantha var. micrantha	Frequent in dry washes in the interior valleys (Abrams 1904).
Boraginaceae	**Cryptantha muricata**	**San Gabriel Wash, about 2 mi. south of Monrovia. RSA601941. City of Irwindale, near junction of Foothill Blvd & Irwindale Ave., between gravel pit and the San Gabriel River channel UCR157424.**
Boraginaceae	**Heliotropium curassavicum**	**Common in low saline places (Abrams 1904). Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. 33 451/2 N, 118 61/2 W USGS 71/2' Los Alamitos quad RSA678874. San Gabriel River channel, about 400m, north of San Gabriel River Parkway bridge, city of Pico Rivera RSA654726**
Boraginaceae	Pectocarya linearis	Frequent on the mesas in the coast valleys and in moist places in the interior region (Abrams 1904).
Boraginaceae	**Pectocarya penicillata**	**Rocky alluvial fan with sandy loam; coastal sage scrub of Rhus laurina, Artemisia californica, Lotus scoparius, Salvia mellifera, etc. San Gabriel Wash UCR126246 Irwindale UCR42566**
Brassicaceae	Cardamine californica	Frequent in damp shady places in the mountains and foothills (Abrams 1904). Marshes and sluggish streams (Davidson and Moxley 1923) (gambellii). Brewer, San Gabriel UC10418.
Brassicaceae	**Cardamine oligosperma**	**California State University, Long Beach RSA607508.**

Family	Species	Location description and references
Brassicaceae	**Descurainia pinnata**	**Disturbed riparian woodland in Whittier narrows RSA286432.**
Brassicaceae	**Erysimum capitatum**	**Azusa UC1211011.**
Brassicaceae	Hutchinsia procumbens	In moist saline places throughout our range (Abrams 1904). In subalkaline sands on the coast (Davidson and Moxley 1923).
Brassicaceae	Lepidium dictyotum var. acutidens	In saline places toward the coast (Abrams 1904). Occasoinal in alkaline soils on the coastal plains (Davidson and Moxley 1923).
Brassicaceae	**Lepidium nitidum**	**Azusa/Irwindale UCR126254. Pasadena UC856523.**
Brassicaceae	**Rorippa curvisiliqua**	**Frequent in low ground, about ponds and on river bottoms (Abrams 1904). UCR125637. Occasional on the margins of shallow pools (Davidson and Moxley 1923).**
Brassicaceae	Rorippa gambelii	Frequent in marshes and wet places in the valleys (Abrams 1904)
Brassicaceae	Rorippa nasturtium-aquaticum	Common in streams (Abrams 1904). Very common in streams and marshy places (Davidson and Moxley 1923).
Brassicaceae	**Thysanocarpus curvipes**	**Azusa UC1211053**
Cactaceae	**Opuntia occidentalis**	**Mature zone of San Gabriel Wash (Smith 1980).**
Cactaceae	**Opuntia parryi**	**Mature zone of San Gabriel Wash (Smith 1980).**
Campanulaceae	Lobelia cardinalis var. pseudosplendens	Rare in marshes near Los Angeles, more common in wet places at middle altitudes in the mountains of Los Angeles, San Bernardino and San Diego Cos (Davidson and Moxley 1923).
Campanulaceae	Lobelia dunnii var. serrata	Frequent in moist places in the canyons of the San Gabriel and Santa Ana Mountains (Abrams 1904).
Caprifoliaceae	**Sambucus mexicana**	**Frequent on low hills and in washes in all the valleys (Abrams 1904). POM305142. UCR126247. Baldwin Park RSA650339. RSA477555, RSA477570,**
Caryophyllaceae	Arenaria paludicola	At one time common in the tule marshes of the cienegas at Los Angeles and Sherman, now exterminated by cultivation. Santa Ana River near San Bernardino (Davidson and Moxley 1923).
Caryophyllaceae	Spergularia macrotheca	Common in salt marshes and alkaline flats (Abrams 1904).
Caryophyllaceae	**Spergularia marina**	**Common in salt marshes toward the coast (Abrams 1904). Bryant Ranch, E of Long Beach. T4S R12W SE/4 Sec.27. Alt. 15 ft. RSA12398. Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. 33 451/2 N, 118 61/2 W USGS 71/2' Los Alamitos quad RSA678875.**
Ceratophyllaceae	Ceratophyllum demersum	In ponds and slow streams, frequent throughout our range (Abrams 1904). Frequent in ponds and slow streams (Davidson and Moxley 1923).
Chenopodiaceae	Atriplex lentiformis	In alkaline soils at Mecca, Parish (Davidson and Moxley 1923).
Chenopodiaceae	Atriplex macrocarpa	Rather common in saline palces toward the coast (Abrams 1904).

Family	Species	Location description and references
Chenopodiaceae	Atriplex patula	Frequent in saline places, especially toward the coast (Abrams 1904). Common in alkaline flats and coast marshes (Davidson and Moxley 1923).
Chenopodiaceae	Atriplex serenana	Very common throughout our range in saline places (Abrams 1904). Cienega UC56783. La Verne UC520378.
Chenopodiaceae	**Chenopodium californicum**	**Frequent in the valleys and foothills (Abrams 1904). Azusa UC1211077.**
Chenopodiaceae	Chenopodium rubrum	Occasional in saline flats and marshes along the coast (Abrams 1904).
Chenopodiaceae	Monolepis nuttalliana	In dry alkaline soils on the desert and in the interior valleys; Santa Monica (Davidson and Moxley 1923).
Chenopodiaceae	Nitrophila occidentalis	In alkaline soils along Los Angeles River; Nigger Slough, and south along the coast to lower California. Also low grounds in the interior (Davidson and Moxley 1923).
Chenopodiaceae	**Salicornia virginica**	**Very common in salt marshes along the coast (Abrams 1904). Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. 33 451/2 N, 118 61/2 W USGS 71/2' Los Alamitos quad RSA678871.**
Chenopodiaceae	Suaeda moquinii	Common in saline places (Abrams 1904).
Chenopodiaceae	**Suaeda taxifolia**	**Frequent in saline places along the coast (Abrams 1904). Common on the edges of the coast marshes (Davidson and Moxley 1923). Long Beach UC55968.**
Chenopodiaceae	Sueda calcioliformis	Frequent in low alkiline places toward the coast. Hyde Park; Mesmer (Abrams 1904).
Chenopodiaceae	**Sueda esteroa**	**Rare species, Long Beach POM123170.**
Cistaceae	**Helianthemum scoparium**	**Azusa UC1211012.**
Convolvulaceae	**Calystegia macrostegia ssp. intermedia**	**Garvanza UC449949. End of Canyon Dr., 2 miles off Penn St. and 100 yds. E of Whittier College track. RSA660902.**
Convolvulaceae	Calystegia sepium	In moist meadows in the coast region (Abrams 1904). near Los Angeles UC126774.
Convolvulaceae	**Cressa truxillensis**	**Frequent in saline places throughout our range (Abrams 1904). Gardena UC56828. Long Beach JEPS47820.**
Cornaceae	**Cornus glabrata**	**Whittier Narrows, San Gabriel River bed near Whittier UCR24178.**
Cornaceae	**Cornus sericea**	**Occasional in moist ground, especially in the mountains, but reported from Cienega by Davidson (Abrams 1904). Occasional along stream banks in the San Gabriel and Cuyamaca Mts.; more frequent in the San Bernardino and San Jacinto ranges; the few trees formerly growing in the cienega near Los Angeles have been destroyed (Davidson and Moxley 1923). Whittier (moist sandy soil on deep bottomland) UCR24188**
Crassulaceae	**Crassula connata**	**UCR126231**
Crassulaceae	**Crassula tillaea**	**San Gabriel Wash RSA604602. Azusa: San Gabriel Wash at Foothill Blvd., east side UCR101270.**

Family	Species	Location description and references
Crassulaceae	**Dudleya lanceolata**	**Azusa; alluvial fan east and west of levee. SD143942**
Cucurbitaceae	Cucurbita foetidissima	Frequent in dry sandy soil throughout our range (Abrams 1904).
Cucurbitaceae	**Marah macrocarpus**	**Mature zone of San Gabriel Wash (Smith 1980). UCR164058.**
Cupressaceae	**Juniperius californica**	**On higher terraces with chaparral assemblage in San Gabriel Wash (Smith 1980). POM6815. "About Los Angeles it has been found near Azusa…" (Davidson and Moxley 1923). San Fernando Valley and San Gabriel Wash near the mouth of the canyon (Abrams 1904). "on dry washes on the coastal slope in southern California" (Abrams 1910: 331). San Gabriel Wash at Azusa. ca. 500+ ft alt. POM6815.**
Cuscutaceae	**Cuscuta californica**	**Occasional along the coast and in the interior, growing on various low shrubs (Abrams 1904). Azusa. POM156517. Irwindale. UCR125631.**
Cuscutaceae	**Cuscuta indecora**	**3 miles SE of El Monte. Alt. 250 ft. [=Bassett] POM222505.**
Cuscutaceae	**Cuscuta salina**	**In salt marshes along the coast, growing over Salicornia, etc (Abrams 1904). Alamitos Bay. Alt. 2 m. RSA409749.**
Cuscutaceae	**Cuscuta subinclusa**	**Azusa; alluvial fan east and west of levee. SD143934. Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters RSA409716.**
Cyperaceae	**Carex alma**	**El Monte POM1430. UC212018.**
Cyperaceae	**Carex lanuginosa**	**Ditch along R.R., El Monte. UC212035.**
Cyperaceae	**Carex praegracilis**	**Frequent in marshes in the coast valeys (Abrams 1904). El Monte RSA88757.**
Cyperaceae	**Carex spissa**	**El Monte, Alt. 400 ft. POM1513.**
Cyperaceae	Cladium californicum	Swamp near San Gabriel by Brewer (Watson, Bot. Cal. 2:224). Also in (Davidson and Moxley 1923). Known from alkali flats.
Cyperaceae	**Cyperus eragrostis**	**Lexington Wash near El Monte. Elevation 240 ft. RSA610522**
Cyperaceae	**Cyperus erythrorhizos**	**Long Beach RSA365115.**
Cyperaceae	Cyperus laevigatus	Occasional in moist places about Los Angeles and San Bernardino (Abrams 1904). Not infrequent along Los Angeles river (Davidson and Moxley 1923).
Cyperaceae	**Cyperus niger**	**Occasional in moist sandy places on river bottoms (Abrams 1904). Long Beach UC838211 RSA365096**
Cyperaceae	Eleocharis acicularis	Frequent in moist places along streams and on porders of ponds (Abrams 1904). Moist places in the Los Angeles and Santa Ana Rivers (Davidson and Moxley 1923).
Cyperaceae	**Eleocharis macrostachya**	**Common in wet places along streams throughout our range (Abrams 1904). Common along streams (Davidson and Moxley 1923). Nigger Slough, near El Monte. POM1364.**
Cyperaceae	**Eleocharis montevidensis**	**El Monte, along R.R. UC306107. Long Beach. Alt. 100 [ft] RSA365443**

Family	Species	Location description and references
Cyperaceae	Eleocharis rostellata	Frequent in marshes and on river bottoms about Los Angeles and San Bernardino (Abrams 1904). San Bernardino (Davidson and Moxley 1923). Alkali sink.
Cyperaceae	Isolepis cernua	Occasional on river bottoms about Los Angeles and Santa Barbara (Abrams 104).
Cyperaceae	**Schoenoplectus acutus**	**Common along streams and marshes. "Tule" (Abrams 1904). Very common along streams and in marshes (Davidson and Moxley 1923). El Monte, Alt. 400 ft. POM1384 Southeast of El Monte. RSA92164El Monte; ditch along R.R. UC306166**
Cyperaceae	Schoenoplectus robustus	Common in marshes, especially in somewhat saline places (Abrams 1904).
Cyperaceae	**Scirpus americanus**	**Occasional on river bottoms about Los Angeles (Abrams 1904). Occasional on river bottoms,Orange, Los Angeles and San Diego Cos (Davidson and Moxley 1923). Common among tles throughout the southern counties (olneyi) (Davidson and Moxley 1923). Long Beach. RSA366046 El Monte. Alt 275 ft. RSA1406. South-east of El Monte: San Gabriel River at Slaughter Avenue and Parkway Drive. RSA602205 UC306164**
Cyperaceae	**Scirpus californicus**	**More common (Abrams 1904). Common in brackish marshes, less abundant than [acutus] (Davidson and Moxley 1923). Long Beach, Alamitos Ranch, East and South of El Monte. UC188245 RSA366003 RSA92163**
Cyperaceae	**Scirpus maritimus**	**S. B. and W. F. Parish, 1115, October, 1881. Long Beach RSA366068 UC2154**
Cyperaceae	**Scirpus microcarpus**	**El Monte RSA1413 UC306138**
Elatinaceae	Elatine brachysperma	Occasional along borders of ponds toward the coast (Abrams 1904).
Equisetaceae	**Equisetum arvense**	**Lexington Wash near El Monte. Elevation 240 ft. POM223056**
Equisetaceae	**Equisetum laevigatum**	**UCR132443. Occasional along streams (Davidson and Moxley 1923). Along mountain streams and in cienegas (Davidson and Moxley 1923). El Monte. Rivera. Whittier.**
Equisetaceae	**Equisetum telmateia**	**San Gabriel River, near Bassett, L. Street (E. telmateia (Davidson and Moxley 1923)).**
Euphorbiaceae	**Chamaesyce melanadenia**	**Azuza UC1184975.**
Euphorbiaceae	**Croton californicus**	**UC1211064. UC1211064. UCR125629. UCR100070. RSA647962. UCR125629. RSA479356. RSA479354. UCR125629. RSA479356. UCR100070.**
Fabaceae	Amorpha fruticosa	Los Angeles, Davidson. UC80650.
Fabaceae	Astragalus pycnostachyus	In moist subsaline soil near the sea (Abrams 1904). Ballona slough UC56521. Near Santa Monica UC192246. Cienega UC397224.
Fabaceae	**Astragalus trichopodus var. lonchus**	**Frequent on the plains (Abrams 1904). Grassy hills near Inglewood UC153560. Hermosa Beach; dunes of the sea coast UC397241. La Brea Canyon; Puente Hills JEPS54845. Long Beach POM9012.**
Fabaceae	Astragulus tener	In low ground near the coast (Abrams 1904). Low ground near Hyde Park. UC153559.

Family	Species	Location description and references
Fabaceae	**Lotus heermannii**	**Canyons of the San Gabriel and Santa Ana Mountains, below 4000 ft (Abrams 1904). El Monte, Rivera UC397212 UC80812**
Fabaceae	**Lotus oblongifolia**	**Along streams near Los Angeles and in San Gabriel Canyon (Abrams 1904). El Monte, Rivera UC212489 UC56569**
Fabaceae	**Lotus purshianus**	**UCR125617. Long Beach UC537010. Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters RSA406258. Long Beach POM201889**
Fabaceae	Lotus salsuginosus	In moist places on the plains and in the canyons of the foothills (Abrams 1904).
Fabaceae	**Lotus scoparius**	**Smith 1980 - pioneer and intermediate zones. UCR126340. Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters. RSA406845 Long Beach POM27731**
Fabaceae	**Lotus strigosus**	**UCR126587**
Fabaceae	**Lupinus bicolor**	**Common in all our valleys (Abrams 1904). Azusa, Irwindale, Long Beach UCR126249. UCR126249 RSA652734 RSA652739 RSA4769**
Fabaceae	Lupinus concinnus	Occasional in dry washes in the interior valleys (Abrams 1904).
Fabaceae	Lupinus latifolius	Frequent in the canyons of the San Gabriel and San Bernardino Mountains (Abrams 1904)
Fabaceae	**Lupinus succulentus**	**RSA625862. Long Beach JEPS65486**
Fabaceae	**Lupinus truncatus**	**In alluvial plain, disturbed. Santa Fe Dam RSA625864**
Fabaceae	**Trifolium obtusiflorum**	**[Pico] Rivera UC56623.**
Fabaceae	**Trifolium wormskioldii**	**Frequent in low ground in the valleys (Abrams 1904). [Pico] Rivera UC56625.**
Fagaceae	Quercus agrifolia	The common oak of our valleys and foothills (Abrams 1904).
Fagaceae	Quercus engelmannii	[Q. lobata] does not extend south of the Santa Monica Mountains, but its place south of this range is taken by Quercus engelmannii which, together with Quercus agrifolia, covers considerable area about Pasadena, Santa Anit, and Fall brook. Abrams 1910. Frequent from Altadena to Monrovia; also occurring at Azusa and Glenora, as well as in the foothills of San Diego County (Abrams 1904).
Frankeniaceae	**Frankenia salina**	**Common in saline marshes (Abrams 1904). Long Beach UCR689740. Gardena UC55882. Nigger Slough UC141119. Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. 33 451/2 N, 118 61/2 W USGS 71/2' Los Alamitos quad RSA678915**
Gentianaceae	**Centaurium exaltatum**	**Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters RSA391490. Santa Fe Dam, 15501 E. Arrow Highway, Irwindale; 400 feet northwest of park office. RSA647968. Albino plants, 1 mile west of Azusa, Los Angeles County. POM153274.**
Grossulariaceae	**Ribes aureum var. aureum**	**Eaton's Wash, near Sierra Madre (Abrams 1904). Smith 1980 -- mature zone. Irwindale, San Gabriel Wash UCR42526 UCR100062 UCR70843**

Family	Species	Location description and references
Grossulariaceae	**Ribes divaricatum var. parishii**	**On Los Angeles River near Universal City this shrub forms quite a thicket; elsewhere it occurs in isolated clumps in the foothill canyons of the Santa Monica and San Gabriel Mountains (Davidson and Moxley 1923).. Lexington Wash at El Monte in willow thickets POM360. Whittier Narrow, San Gabriel River, Pico Rivera; elev. 400 ft in willow thicket along flood plains of streams in a Coastal Sage Scrub Community RSA164867. San Gabriel River at whittier Narrows; elev. 200 ft in moist brushy bottomland flats RSA78371. UC1010241. San Gabriel River at El Monte in willow thicket UC212382. San Gabriel River in shade of Salix UC574934. Lexington Wash, El Monte UC741681. San Gabriel River at Whittier narrows Moist brushy bottomland flats with *Cornus californica*, *Populus trichocarpa*, etc. UCR24339. Whittier Narrows. Near bottom Semishade, in moist sandy soil on a deep bottomland. With *Cornus californica*, *Vitis girdiana* and *Populus trichocarpa*. UCR24340. Whittier Narrows, San Gabriel River, Pico Rivera Willow thicket along flood plains of streams in a Coastal Sage Scrub Community. UCR25493. With *Rubus* in *Salix-Populus* Jungle Lexington Wash near El Monte UCR70822**
Grossulariaceae	**Ribes indecorum**	**Duarte, Azusa UC921816. UCR126239. UCR125624.**
Hydrocharitaceae	Najas flexilis	Ponds, Garvanza and Solidier's Home (Davidson and Moxley 1923).
Hydrocharitaceae	**Najas marina**	**In pond in gravel pit, Irwindale RSA603584 UCR101199**
Hydrophyllaceae	**Eriodictyon trichocalyx**	**Smith 1980 -- mature zone. UC1183071. UCR126238. UC1183071. UC1211013. UCR126238. RSA647963. UCR126238. UCR100064. UCR126238. RSA649604.**
Hydrophyllaceae	Nama stenocarpum	Growing about the borders of ponds (Abrams 1904).
Hydrophyllaceae	**Phacelia cicutaria**	**Abandoned gravel pit Asuza, Irwindale UCR125610**
Hydrophyllaceae	**Phacelia distans**	**Very commom in the plains and foothills (Abrams 1904). UCR126339. UCR125777. RSA602197. RSA602196. RSA647972. UCR42538. UCR126339. RSA647972.**
Hydrophyllaceae	**Phacelia stellaris**	**Bryant Ranch, near Long Beach, SE/4 Section 27, T4S, R11W Station #3. Plat. 3. RSA4765**
Iridaceae	**Sisyrinchium bellum**	**El Monte POM1767 UC205501**
Juglandaceae	**Juglans californica**	**Azusa. JEPS46456. UC1184976.**
Juncaceae	**Juncus acutus ssp. leopoldii**	**Salt marshes near the coast (Abrams 1904). Long Beach RSA368107**
Juncaceae	**Juncus ambiguus**	**El Monte UC212778**
Juncaceae	Juncus arcticus spp. littoralis	Frequent along streams and in low ground generally throughout our range (Abrams 1904).
Juncaceae	**Juncus bufonius**	**Common in the valleys and mountains in moist ground (Abrams 1904). Lexington Wash, San Gabriel River. El Monte. Alt 80 m. Bryant Ranch. Whittier Narrows. RSA368150 POM1547 RSA12415 RSA611959**
Juncaceae	Juncus lesueurii	Occasional along streams in our foothill canyons. What seems to be the same collected by the author along New River near Long Beach (Abrams 1904).

Family	Species	Location description and references
Juncaceae	**Juncus mexicanus**	**More common, along streams and in low ground (Abrams 1904). Lexington Wash, El Monte. RSA368237 POM1557 UC212770**
Juncaceae	**Juncus phaeocephalus**	**Frequent along streams and in low brackish places (Abrams 1904). Road east and south of El Monte. RSA70269. [El Monte?] Ditch along Railroad. Alt. 375 ft. POM1608**
Juncaceae	**Juncus textilis**	**South El Monte: San Gabriel River, near Potrero Chico. RSA603787. El Monte. POM1597 UC213636**
Juncaceae	Juncus torreyi	Occasional along streams. Los Angeles River, Davidson (Abrams 1904).
Juncaginaceae	**Triglochin maritima**	**Salt marshes along the coast (Abrams 1904). Common in salt marshes along the coast, and in moist akaline soils in the interior (Davidson and Moxley 1923). San Gabriel River near El Monte RSA368937. Long Beach RSA69593 UC142457**
Lamiaceae	Lycopus americanus	Banks of Rio Hondo, El Monte RSA83442
Lamiaceae	Lycopus asper	Occasional along strream banks in the San Fernando Valley, Parish (Abrams 1904).
Lamiaceae	**Monardella lanceolata**	**San Gabriel Wash UC883591**
Lamiaceae	Salvia carduacea	Occasional in sandy soil in all the valleys and in the foothils (Abrams 1904).
Lamiaceae	**Salvia columbariae**	**Azusa at Foothill Blvd. RSA401449. UC1211060**
Lamiaceae	**Salvia mellifera**	**Mature zone of San Gabriel River (Smith 1980). Azusa POM305154. UCR126235. Irwindale RSA647929.**
Lamiaceae	**Scutellaria bolanderi**	**Moist woods, El Monte, Davidson (Abrams 1904).**
Lamiaceae	Stachys ajugoides	Frequent along streams in the valleys and in the lower altitudes of the mountains below the pine belt (Abrams 1904).
Lamiaceae	**Stachys albens**	**Frequent along marshes and streams in the valleys and extending into the pine belt of all our mountains (Abrams 1904). Lexington Wash near El Monte. Elevation 240 ft. POM223057 RSA582111.**
Lamiaceae	Stachys bullata	Frequent on shaded slopes and in canyons in all the mountains and foothills (Abrams 1904).
Lemnaceae	Lemna gibba	Common in slow-running streams and ponds (Abrams 1904). Common on ponds and streams (Davidson and Moxley 1923).
Lemnaceae	Lemna minor	Less common than Lemna gibba (Abrams 1904). Common throughout our range (Abrams 1904).
Liliaceae	Brodiaea minor	Occasional in heavy soil (Abrams 1904). No recent records in region.
Liliaceae	**Dichelostemma capitatum**	**UC1211090. UCR126337.**
Liliaceae	**Yucca whipplei**	**Mature and pioneer zones of San Gabriel Wash (Smith 1980). UC1272485**

Family	Species	Location description and references
Limnanthaceae	Limnanthes douglasii	Growing in wet places. Reported from Los Angeles and San Bernardino (Abrams 1904). Marshy ground near Gardena (Davidson and Moxley 1923).
Loasaceae	Mentzelia gracilenta	Frequent on the plains and foothils and also on the sand-dunes along the seashore (Abrams 1904).
Loasaceae	Mentzelia laevicaulis	Frequent in dry washes in our interior valleys and canyons (Abrams 1904).
Lythraceae	Lythrum californicum	Common in damp ground along streams, both in the valleys and mountains (Abrams 1904).
Malvaceae	Malacothamnus davidsonii	San Fernando Valley and La Canada in washes (Abrams 1904).
Malvaceae	**Malacothamnus fasciculatus**	**San Gabriel Wash UC303547 Azusa UC18793**
Malvaceae	**Malvella leprosa**	**Common in subsaline places (Abrams 1904). Bryant Ranch, East of Long Beach [Los Alamitos] RSA5871. RSA4834. RSA77179. Near channel of SGR**
Malvaceae	Sidalcea neomexicana	in low subsaline places throughout our range (Abrams 1904).
Nyctaginaceae	**Mirabilis californica**	**San Gabriel River Wash, Irwindale RSA652391**
Oleaceae	Fraxinus latifolia	San Gabriel and Lytle Creek Canyons (Abrams 1904).
Oleaceae	**Fraxinus vetulina**	**Azusa, Irwindale, El Monte UCR126243 UCR150614 UC277059**
Onagraceae	**Camissonia bistorta**	**UC1184979. RSA625859. Glendora UC166702. San Pedro UC107678.**
Onagraceae	Camissonia contorta	Common in sandy soil in the valleys and foothills toward the coast (Abrams 1904).
Onagraceae	**Camissonia intermedia**	**RSA647945**
Onagraceae	**Camissonia strigulosa**	**Bryant Ranch, near Long Beach, SE/4 Section 27, T4S, R11W Station #3. Plat. 3. RSA4785. RSA4784**
Onagraceae	**Clarkia purpurea**	**RSA685140**
Onagraceae	Epilobium canum	Frequent in low ground in all our valleys (Abrams 1904).
Onagraceae	**Epilobium ciliatum ssp. ciliatum**	**In marshes near the coast. Alamitos (Abrams 1904). In marshes near the coast. Cienega; Alamitos, Abrams (Davidson and Moxley 1923). Common in damp land in the valleys and along streams below 4000 feet (Abrams 1904). Lexington Wash, San Gabriel River, El Monte. RSA588473. New River near Long Beach. POM50051. UC306263. Rivera UC56457.**
Onagraceae	Ludwigia peploides ssp. peploides	In stagnant water or muddy bottoms. In marshes toward the coast. Alamitos (Abrams 1904).
Onagraceae	**Oenothera elata ssp. hookeri**	**Frequent in moist ground, usualy along streams, both in the valleys and mountains (Abrams 1904). Dry sandy riverbed, San Gabriel River, El Monte POM355619**
Orchidaceae	**Epipactis gigantea**	**"San Gabriel Canyon" UC1174781. El Monte RSA381705.**
Papaveraceae	**Dicentra chrysantha**	**SBBG70220**

Family	Species	Location description and references
Papaveraceae	Eschscholzia californica	
Papaveraceae	Platystigma linearis	Occasional in shady places in the foothills (Abrams 1904).
Papaveraceae	Romneya coulteri	Occasional in canyons. Puente Hills (Abrams 1904).
Papaveraceae	Stylomecon heterophylla	Frequent in shady places in the foothills and mountains below 4000 feet (Abrams 1904).
Plantaginaceae	Plantago erecta	Very common on dry plains and in the foothills throughout our range (Abrams 1904).
Platanaceae	**Platanus racemosa**	**Occasional of San Gabriel Wash floodplain (Smith 1980). "Mostly confined to the lower altitudes, and occurs on the canyon floors, often following the washes well out into the valleys" (Abrams 1910:317). Common along all the streams, mostly below 3000 feet altitude (Abrams 1904). San Gabriel River channel, about 250 m. north of San Gabriel River Parkway bridge, city of Pico Rivera. RSA649001**
Plumbaginaceae	Limonium californicum	Occasional in salt marshes along the coast (Abrams 1904).
Poaceae	**Agrostis exarata**	**Occasional in low moist places in the coast valleys (Abrams 1904). UC1169778**
Poaceae	**Agrostis viridis**	**UCR125632**
Poaceae	**Bromus carinatus**	**Occasional in the coast valleys. Ballona Creek near Mesmer (Abrams 1904). UCR125627.**
Poaceae	**Distichlis spicata**	**Very common in low subsaline places along the coast and in our interior valleys (Abrams 1904). Common in subalkaline places, especially near the coast (Davidson and Moxley 1923). El Monte UC1795542.**
Poaceae	Elymus trachycaulus ssp. subsecundus	Ballona Creek, near Mesmer (Abrams 1904).
Poaceae	**Eragrostis mexicana ssp. virescens**	**Azusa POM220644. Long Beach RSA613269.**
Poaceae	Eragrostis pilosa	Occasional along irrigating ditches about San Bernardino and Santa Ana (Abrams 1904).
Poaceae	**Hordeum brachyantherum ssp. californicum**	**Long Beach, Bryant Ranch, El Monte RSA12276. POM352437. RSA87063**
Poaceae	**Hordeum depressum**	**Frequent in moist places in all our valleys (Abrams 1904). Bryant Ranch, near Long Beach. Collected for correlation with a soil survey by the Association Laboratory, Anaheim, Calif. North west 1/4 Section 31, T4S, R12W. RSA4805 Bryant Ranch, east of Long Beach along Bixby Ave. 0.5 mile west of Hansen Rd. 100 ft N of fence; T4S R11W NE/4 S34; elev. 25 ft. RSA12283**
Poaceae	**Koeleria macrantha**	**Road east and south of El Monte. RSA87068.**
Poaceae	Leptochloa uninervia	Intersection of Pacific Coast Highway/ Studebaker Rd., near Long Beach Marina. Salt marsh and seasonal fresh-water wetland. 33 451/2 N, 118 61/2 W USGS 71/2' Los Alamitos quad. RSA678918

Family	Species	Location description and references
Poaceae	**Leymus condensatus**	**Frequent in canyons and in somewhat moist places on all the hills… (Abrams 1904). UCR125561.**
Poaceae	**Leymus triticoides**	**Common in low ground, especially in the coast valleys (Abrams 1904). El Monte, south-east of El Monte RSA86688 POM1311.**
Poaceae	Monanthochloe littoralis	Occasional on salt marshes along the coast. San Pedro (Abrams 1904). Occasional on the borders of salt marshes, from Santa Barbara to San Diego (Davidson and Moxley 1923).
Poaceae	**Muhlenbergia microsperma**	**2 mi SW of Azusa RSA612218**
Poaceae	Paspalum distichum	Frequent along streams and irrigating ditches (Abrams 1904). UCR126242.
Poaceae	Phalaris lemmonii	Meadow lands from South Los Angeles to Inglewood (Davidson and Moxley 1923).
Poaceae	**Phalaris minor**	**Very commmon in all our valleys in rather moist or heavy soil (Abrams 1904). Long Beach, El Monte POM356919 UC205651**
Poaceae	Puccinellia nuttalliana	Subalkaline flats at Santa Ana, Alamitos and Hynes (Davidson and Moxley 1923).
Poaceae	Sporobolus airoides	Occasional in low ground. Wilmington, Westminster; San Bernardino; San Deigo (Abrams 1904)
Polemoniaceae	**Allophyllum divaricatum**	**Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters. RSA410058.**
Polemoniaceae	**Eriastrum sapphirinum ssp. dasyan-thum**	**Azusa, Downey, El Monte RSA409380 POM10281 RSA409382**
Polemoniaceae	Gilia achilleifolia	Common on dry plains and foothills throughout our range (Abrams 1904).
Polemoniaceae	**Gilia angelensis**	**UC1211074**
Polemoniaceae	**Gilia capitata ssp. abrotanifolia**	**Cota, near Long Beach. RSA470246**
Polemoniaceae	Leptodactylon californicum	Pasadena UC881520.
Polemoniaceae	**Linanthus aureus**	**Frequent in the interior dry washes (Abrams 1904). El Monte. 2002 North Durbee Road Sunny delivity of silty, gravelly sand.. RSA601132**
Polemoniaceae	**Linanthus dianthiflorus**	**Azusa UC1211170**
Polemoniaceae	Linanthus parviflorus	Common on the plains and foothills throughout our range in sandy soil (Abrams 1904).
Polemoniaceae	Navarretia atractyloides	Frequent in dry washes (Abrams 1904).
Polemoniaceae	**Navarretia hamata**	**Azusa Irwindale, San Gabriel Wash. UC1124087 UCR139268 RSA647976 UC303713 RSA469840**
Polemoniaceae	**Navarretia prostrata**	**Abundant in restricted localities, near Downey; Bixby; Inglewood (Davidson and Moxley 1923). Downey UC23794**
Polygonaceae	**Chorizanthe parryi**	**UC1211062 San Gabriel Wash at 350 ft. RSA392778. Near San Gabriel Wash JEPS57686.**

Family	Species	Location description and references
Polygonaceae	Chorizanthe procumbens	Near Junction of Foothill Blvd and Irwindale Ave. City of Irwindale. Collected in isolated floodplain between gravel pit and the San Gabriel Channel (T1N, R10W, N1/2 sec. 32&33) alt. 550ft. RSA424904.
Polygonaceae	Chorizanthe staticoides	Azuza, Irwindale, on floodplain UC1211062. UCR125630. Etc.
Polygonaceae	**Eriogonum fasciculatum ssp. foliosum**	**San Gabriel Wash (Smith 1980). UCR126342**
Polygonaceae	**Eriogonum gracile**	**Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters. RSA393236 Azusa POM7641**
Polygonaceae	**Eriogonum thurberi**	**Downey, Lexington Wash, Rivera. RSA64768 UC473582 UCR139375**
Polygonaceae	**Mucronea californica**	**E side of San Gabriel Wash, just N of Valley Blvd [El Monte] UCR101299 RSA608227**
Polygonaceae	Polygonum hydropiperoides	Frequent along streams, especially toward the coast (Abrams 1904).
Polygonaceae	**Polygonum lapathifolium**	**Occasional along streams (Abrams 1904). Canyon bottom and adjacent slopes below San Gabriel Reservoir RSA602344. C57 Lexington Wash RSA466345. Peat land on Bryant Ranch east of Long Beach. 700 ft. east of center; 950 ft. So. of No. line of Same. RSA12647**
Polygonaceae	**Polygonum punctatum**	**Whittier narrows UCR108444.**
Polygonaceae	**Pterostegia drymarioides**	**UCR125551**
Polygonaceae	Rumex hymenosepalus	Common on sandy plains in the counties of San Bernardino, Los Angeles, and Orange (Davidson and Moxley 1923).
Polygonaceae	**Rumex salicifolius**	**Frequent in moist places along the coast and in the mountains (Abrams 1904). Common in wet places in the mountains … becoming rare in the valleys from the intrusion of the introduced species (Davidson and Moxley 1923). Lexington Wash, San Gabriel River, El Monte. Alt. 80 m. RSA466116 El Monte POM2349.**
Portulacaceae	**Calandrinia ciliata**	**Azusa UC1211055. Los Angeles [Inglewood], Manchester Ave. near Western Ave UCR688999.**
Portulacaceae	Claytonia perfoliata	Common in moist shady places below 4000 feet altitude (Abrams 1904).
Portulacaceae	Montia perfoliata	Common in shady places in all our mountains.
Potamogetonaceae	Potamogeton nodosus	Occasional in ponds in the valley region (Abrams 1904).
Potamogetonaceae	**Potamogeton pectinatus**	**Common in streams and ponds (Abrams 1904). El Monte: Lake Shangri-La. RSA601917 UCR101740**
Potamogetonaceae	Potamogeton pusillus	Los Angeles River (Davidson and Moxley 1923).
Potamogetonaceae	Ruppia maritima	Brackish streams along the coast (Abrams 1904).
Primulaceae	**Samolus parviflorus**	**Occasional along watercourses. Lytle Creek; San Bernardino Valley (Abrams 1904). In rich damp silt in shade, Lexington Wash, El Monte UC520325 UC526238 UC877769**

Family	Species	Location description and references
Pteridaceae	**Pityrogramma triangularis**	**UCR125622**
Ranunculaceae	Clematis lasiantha	Common in the chaparral belt, clambering over shrubs (Abrams 1904).
Ranunculaceae	Clematis ligusticifolia	Common in canyons in all our mountains and occasionally extending into the valleys along streams (Abrams 1904).
Ranunculaceae	**Delphinium cardinale**	**RSA683816. Frequent in stream washes and canyons (Davidson and Moxley 1923). Irwindale, Azusa, "wash of San Gabriel River"**
Ranunculaceae	Ranunculus aquatilus	In ponds and quiet streams throughout our region; not common (Davidson and Moxley 1923). Occasional in ponds and slow-running streams (Abrams 1904).
Ranunculaceae	Ranunculus cymbalaria	Frequent throughout our range in low moist places (Abrams 1904). Borders of stream and moist grounds (Davidson and Moxley 1923).
Resedaceae	Oligomeris linifolia	In saline soils near the coast and in sandy soils on the deserts (Davidson and Moxley 1923).
Rhamnaceae	**Ceanothus cuneatus**	**West side of Junction of Sierra Madre Ave. and Vernon Ave., Azusa UCR100057. Near Downey UC73351.**
Rhamnaceae	**Rhamnus crocea**	**Mature zone of San Gabriel Wash (Smith 1980). San Gabriel Wash north of Baldwin Park JEPS42044**
Rosaceae	Aphanes occidentalis	Occasional in shady places or along streams in the foothills (Abrams 1904).
Rosaceae	Cercocarpus betuloides	UC12144 "San Gabriel"
Rosaceae	**Horkelia cuneata**	**Azusa, Irwindale UCR42561**
Rosaceae	Potentilla anserina	Rather common in damp ground in the valleys (Abrams 1904).
Rosaceae	Rosa californica	Frequent throughout our range bothin the valleys and mountains (Abrams 1904).
Rosaceae	**Rubus ursinus**	**Frequent in the foothills and valleys, mostly along streams (Abrams 1904). UCR70822**
Rubiaceae	**Galium angustifolium**	**UCR126244**
Rubiaceae	Galium trifidum	Occasional in shady places, mostly in the interior valleys (Abrams 1904).
Salicaceae	**Populus balsamifera ssp. trichocarpa**	**Frequent in the canyons of all our mountains and sometimes extending down into the valleys (Abrams 1904). Whittier UCR24188.**
Salicaceae	**Populus fremontii**	**Rare within our limits (Abrams 1904).**
Salicaceae	**Salix exigua**	**In the interior valleys, mostly beyond our limits (Abrams 1904). El Monte UC846159.**
Salicaceae	**Salix gooddingii**	**long abandoned gravel pit on boundary between Irwindale and Azusa, east of Irwindale Ave. and south of Foothill Blvd, north edge of 210 Fwy east of the San Gabriel River channel UCR126343**

Family	Species	Location description and references
Salicaceae	**Salix laevigata**	**Frequent along all our streems, especially in the canyons (Abrams 1904). Frequent along the valley and foothill streams (Davidson and Moxley 1923). near; Los Angeles R. | Rivera UC150051**
Salicaceae	**Salix lasiolepis**	**The most common willow, covering a considerable area along the Santa Ana and San Gabriel Rivers toward the coast (Abrams 1904). This is the common willow of the valleys (Davidson and Moxley 1923). P367. Rio Hondo in S. El Monte UC447154 RSA608903. San GabrielWash at Foothill Boulevard, Asuza. RSA92643.**
Salicaceae	**Salix lucida ssp. lasiandra**	**Occasional along streams in the valleys (Abrams 1904). Occasional in LA County (Davidson and Moxley 1923). Rio Hondo R. near | Downey | Rio Hondo R. | UC447155.**
Saururaceae	Anemopsis californica	Frquent in wet saline places throughout our range (Abrams 1904).
Scrophulariaceae	Antirrhinum coulterianum	Frequent in the lower portions of the chaparral belt of all our mountains and occurring on the fans at the base of the mountains (Abrams 1904). Covina. Geo. B. Grant. UC444961. San Gabriel Canyon RSA605861.
Scrophulariaceae	**Antirrhinum nuttallianum subsp. nuttallianum**	**Long Beach UCR137148.**
Scrophulariaceae	Castilleja affinis spp. affinis	Occasional in dry washes and fans in the interior valleys (Abrams 1904).
Scrophulariaceae	**Castilleja exserta**	**UC1211072. San Gabriel River, El Monte. UC538073.**
Scrophulariaceae	**Castilleja minor ssp. spiralis**	**El Monte UCR139374. Rivera UC57004.**
Scrophulariaceae	Castilleja tenuis	Frequent in dry washes in the interior valleys (Abrams 1904).
Scrophulariaceae	**Cordylanthus maritimus**	**Occasional in salt marshes near the sea (Abrams 1904). 2 miles south of Artesia RSA82062. 3 miles SE of Artesia POM48012. Bryant Ranch, near Long Beach.RSA4789. Collected for correlation with a soil survey by the Association Laboratory, Anaheim, Calif. North west 1/4 Section 31, T4S, R12W. RSA4789. Long Beach RSA412316.**
Scrophulariaceae	Keckiella cordifolia	
Scrophulariaceae	**Linaria canadensis var. texana**	**San Gabriel Wash at Foothill boulevard, west of Azusa. RSA80421**
Scrophulariaceae	**Mimulus cardinalis**	**Frequent along streams in the foothills and mountains below the pine belt (Abrams 1904). Lexington Wash near El Monte POM223058 RSA420676 POM223058 RSA420676**
Scrophulariaceae	Mimulus floribundus	Frequent along streams, especially in the foothills and mountains (Abrams 1904).
Scrophulariaceae	Mimulus fremontii	Frequent in sandy places in the interior valleys (Abrams 1904).
Scrophulariaceae	**Mimulus guttatus**	**Frequent along streams and variable (Abrams 1904). El Monte (Lexington Wash), Pico Rivera, Whittier RSA434661 RSA649006 RSA286432**
Scrophulariaceae	Mimulus parishii	Occasional along streams (Abrams 1904).

Family	Species	Location description and references
Scrophulariaceae	**Mimulus pilosa**	**Frequent along streams in the valleys and in the mountains (Abrams 1904). San Gabriel Wash RSA434676**
Scrophulariaceae	**Penstemon spectabilis**	**Smith 1980 - pioneer only. UCR100071. UCR126234.**
Solanaceae	**Datura wrightii**	**Frequent in sandy soil throughout our range (Abrams 1904). Santa Fe Dam RSA647954. Azusa, Irwindale, Long Beach**
Solanaceae	**Nicotiana quadrivalvis**	**Occasional in dry washes about Los Angeles (Abrams 1904). Santa Fe Dam RSA647964 RSA426746**
Solanaceae	**Petunia parviflora**	**Occasional on margins of ponds and along streams, especially in subsaline places (Abrams 1904). 1 me e Long Beach JEPS12187**
Solanaceae	**Solanum americanum**	**peat land on Bryant Ranch east of Long Beach. 700 ft. east of center; 950 ft. So. of No. line of Same. RSA12646 Lexington Wash, San Gabriel River. El Monte. Alt 80 m. RSA427317. Asuza, Irwindale, Long Beach. El Monte. UCR125636 RSA682567 RSA427317 RSA12646 RSA9650 UC519959 POM4250 UC303684**
Solanaceae	**Solanum douglasii**	**Lexington Wash, San Gabriel River, El Monte. Dry sandy river bed, Elev. 80 meters RSA422432. Santa Fe Dam RSA647969. Azusa/Duarte UCR126252. San Gabriel River channel, about 500 m. north of San Gabriel River Parkway bridge, city of Pico Rivera. RSA649017.**
Solanaceae	**Solanum xanti**	**San Gabriel River Wash: Azusa; alluvial fan east and west of levee. SD143942. San Gabriel River Wash, Azusa, alluvial fan E and W of levee; between Foothill Blvd. crossing and San Gabriel Valley Gun Club. UCR104163. Santa Fe Dam, Irwindale RSA647973 RSA652025**
Typhaceae	**Sparganium erectum ssp. stoloniferum**	**Occasional along streams, usually growing with Typha. New River near Alamitos (Abrams 1904). Along slow streams andirrigation ditches near Los Angeles (Davidson and Moxley 1923). Rosemead Blvd. and San Gabriel Blvd, just north of intersection (Irwindale) UCR108665.**
Typhaceae	Typha angustifolia	Near Los Angeles, Davidson (Abrams 1904)
Typhaceae	Typha latifolia	Frequent throughout our range along margins of marshes or slow-running streams (Abrams 1904). Frequent along marshes and slow streams (Davidson and Moxley 1923).
Urticaceae	**Parietaria hespera**	**UCR125609**
Urticaceae	**Urtica urens**	**Very common along streams and in low ground in the valeys and the lower altitudes of the mountains (Abrams 1904). Common along streams in low grounds and in the lower mountain valleys (Davidson and Moxley 1923). San Gabriel River channel, about 100 m. north of San Gabriel River Parkway bridge, city of Pico Rivera. RSA649005. RSA649019**
Verbenaceae	Phyla lanceolata	Occasional along slow-running streams in marshy places (Abrams 1904).
Verbenaceae	**Verbena lasiostachys**	**Common in the plains and in the foothills throughout our range (Abrams 1904). N of Azusa, river wash N of Hwy 39, ca 2 road mi N of Foothill Blvd. UCR117675**
Violaceae	Viola pedunculata	In swamp-lands about Los Angeles, Davidson (Abrams 1904).

Family	Species	Location description and references
Viscaceae	Phoradendron macrophyllum	Common on sycamores (Abrams 1904). Common on sycamore, alder, willow and other deciduous trees (Davidson and Moxley 1923).
Viscaceae	Phoradendron villosum	On oaks above Pasadena (Abrams 1904).
Vitaceae	**Vitis girdiana**	**Occasional along streams in the foothills (Abrams 1904). Frequent along streams in the foothills and coastal plain (Davidson and Moxley 1923). Deep bottomland in Whittier narrows with Cornus and Populus UCR24188. San Gabriel River channel, about 400 m, north of San Gabriel River Parkway bridge, city of Pico Rivera. RSA649018. Rio Hondo. Whittier Narrows. RSA597465**
Zannichelliaceae	Zannichellia palustris	Occasional in marshes and ponds (Abrams 1904). Ponds and slow streams, Los Angeles (Davidson and Moxley 1923).
Zosteraceae	Zostera marina	Shoal waters in bays on muddy bottoms. San Pedro (Abrams 1904)

APPENDIX C - TRANSCRIPTS OF ORAL HISTORIES COMPILED BY J.W. REAGAN (1914)

USACE *Los Angeles County Flood Control Research, 1914-1915*. 2 vols. J.W. Reagan, Consulting Engineer. Huntington Library Manuscript Call # HM66796

Flood listings indexed pp.25-28

Contents also listed in Table of Contents but not pursued: Wells and Logs; Soft and Hard Water in Wells; Color of Water in Wells; Fresh Water in the Ocean; Ideas as to Necessary Channel for Flood; Artesian Water Affected or Unaffected by Rapid Change of Surface Water to the Sea; Ideas as to Bank Protection; Drift-wood; [Most of the following are *proposed* diversions] Diversion of Los Angeles River; Diversion of San Gabriel River [this mostly covered in 1867-8 flood]; Diversion of New River; Diversion of Santa Ana River; Diversion of Verdugo Wash; Diversion of Lexington Wash; Pacoima Creek; Mission Creek; Tujunga Wash; Sand Waves; Lick Skillet Wash; as well as an index of localities and lists of interviewees in those localities.

1 FLOOD OF 1825

Mr. J.R. Ramirez: "In 1825, the floods were the greatest in the past 100 years. This flood filled the whole Los Angeles river valley from the bank between North Broadway and San Fernando Sts. to the S.P.R.R. yards on the other side of the river. This flood changed the course of the Los Angeles river eastward from its old bank, along Main St. to somewhere near Alameda St. Its entire course changed to the South Side of the city. The river flowed out through the Ballona Creek before the flood, but after it passed near the foot of the hills at Dominguez, and into San Pedro bay."

"There were other floods but none like that of 1825. There were big floods in 1832-42-49-52-59 and 62. The flood of 1862 was the largest since that of 1825 (142-43)."

Quotes from Warner extensively – look at those notes

Not much info on 1832, other than that José Maria de Abila [probably Avila] remembered it – see Warner. The drainage of ponds and lakes that Warner describes "completed the destruction of the forests that Col. Warner says covered a large portion of the south and west of the city. These forests were in all probability willow thickets and copse, the same as were found, until quite recently, on the low grounds near the mouth, of the Santa Ana and in the swampy lands of the San Gabriel River (475-6)." Similar quote on p.13, but it says that "these forests were in all probability thickets or copse of willow, larch, and cottonwood similar to those found in the low ground near the mouth of the Santa Ana River and in the swampy lands of the San Gabriel River thirty years ago [the mid-1880s]."

2 FLOOD OF 1851-52

A.J King: "Mr. King says the San Gabriel River originally ran on the West side of El Monte, says he would not say how long ago it was that it did so, but the country showed very plainly that it had done so when he first came to country [in 1852]. There was no sign of a wash down through El Monte where there is now a wash from 1000 to 3000 feet wide, but there was a sand ridge and up above El Monte there was a large swale which was full of elder bushes and brush, that lead from up toward the canyon and over toward Savannah or about 1 mile Westerly of El Monte, and below El Monte and down toward Old Mission settlement there was hundreds of acres of swamp ground tullie [sic.] beds and standing water the year around. This wet low ground and a slough near Savannah was where Mission Creek or Rio Hondo got its water from the early times, and at that time it was a small live stream. [**Flood of 1862 here as well:**] The first time in his knowledge that any water from San Gabriel Canyon went down on the West side was in 1862, and in that flood, there was lots of water went down on that side but it did very little cutting that season, but every flood since it has continued to get worse until at the present time it gets the majority of the San Gabriel Canyon flood waters (359)."

"Mr. King says that in 1852 there were large rains and the country got so damp you would mire down anywhere, and the mesa was as bad as in the valleys. Mrs. King says she was in Los Angeles City in 1852 and could not get home to Old Mission Settlement for several weeks (360)."

Mr. John Guess: "In 1852 the country was full of cattle, horses and sheep belonging to Mexican families and were allowed to run wild over the country, and he says there were hundreds of them bogged down and they gathered together on the sand ridges and high ground for weeks. Says you could not tell where the rivers were as the whole lower valley was a river and it seemed to run as swift into one place as another. Says he does not know how far east the valley was flooded for you could not get there for weeks and it was two weeks before they could get to Los Angeles from the Lugo ranch by horseback. The ground was so soft and the water so high. There was only a small piece of country in near the old Lugo homestead that was not under water. All Compton as far as the hills and up the southwest section of Los Angeles was under water […] He says that in the early times of 1852 the San Gabriel and Los Angeles river beds were not very well defined. They were shallow and

liable to run everywhere. The Mexicans drove their cattle across them almost anywhere, especially the San Gabriel below where Foster bridge is at the present time; from Foster bridge up along the mesa where the river was called Rio Hondo the banks were well defined and the river ran in the same place […] There were very few trees in the lower country in the early times but the whole country was covered with mustard about seven feet high and as thick as the hair on a dog's back and there were just trails leading through it (494-5)."

3 FLOOD OF 1859-60

J.M. Guinn: During the SG gold rush - "On December 4, 1859 a terrify southeaster set in and in forty-eight hours twelve inches of rain fell. The waters of the San Gabriel River rose to an unprecedented height and in the cañons swept away the miner's sluices and mining machinery. The rivers overflowed the lowlands and large tracts of the bottom lands were covered with sand and sediment (14)."

4 FLOOD OF 1861-62

"**The Los Angeles Star** of Jan. 25, 1862, speaking of the San Gabriel river says it was out of its banks for the reason that the stream became clogged and choked on the plains and then spread over the country. It forged a new channel from the east side of El Monte to the west side of the same place. Much damage was done to ranches, houses, etc. One ranch lost 30 acres and 5000 grape vines (2-3)."

Mr. J.D. Durffy (El Monte): "Says in 1861-2 there was a big flood, and the water broke over El Monte, and went down what was known as Lexington Wash. At that time Lexington Wash did not have the semblance of a river bed there; was a large swale above El Monte, and thick with willows and brush. The whole section down by El Monte as far as Savannah was under water, and down toward Old Mission; says you could not go from el [sic.] Monte to Los Angeles would swim a horse, and the El Monte people had to go upstream two to three miles and cross where the water was not so deep, and then come back to the road over the high ground; says he had to do that more than once. But the 1861-2 flood did not make any channel or do any washing except down below Old Mission settlement [Montebello?], and between Old Mission and El Monte (272)."

Mr. Keno Parish "He says in 1861-2 there were big rains and the country was badly flooded and the San Gabriel overflowed, and took somewhat the same course as where New River was afterward made in 1867. Says there was water along the road through El Monte as far as Savannah, and in places was belly deep to a horse."

"Says the waters of the San Gabriel used to sink above el [sic.] Monte and came out below in Spring above Old Mission Settlement about one or two miles, and formed the Rio Hondo and ran all the time, but was nothing more than a branch or small creek (320)."

Mr. E.H. Dalton "He says in that flood there was no damage done unless a few head of stock got drowned – there was nothing to damage (377)."

Mr. W.T. Slack "He lived at Old Mission settlement with his father in 1862. His father was running a distillery at the time, and his house and distillery were washed out in the 1862 flood. Says there was a wash or draw through El Monte in 1862, but it was small and grown up with willows and elder bushes, not very deep, and did not carry much water or cut out much until the eighties (393)."

Mr. S.D. Thurman: "In 1861-2 there was 40 days of rain in one stretch, he did not count them himself, but there was an old lady lived with them, his aunt who always made a habit of keeping track of that kind of thing and she claimed it rained forty days, and he never knew her to make a mistake on that kind of stuff. The whole country around El Monte was under water and over as far as Savannah and all south of Monte with exception of a sand ridge that runs from El Monte down towards Old Mission. The place where he lives at the present time [in El Monte] was all under water some 2 to 4 feet deep, and in going from El Monte to Savannah it would swim a horse.
"In the 61-2 flood the water spread through the willow and brush and did no cutting to speak of only when there was a clear piece of ground sometimes there would be a current or swirl formed and dig out a hole, says he remembers about these holes very well (488)."

"In the early times before the 1862 flood there was not much of a channel on either side of the Monte the water came down out of the canyon and split up into several channels above the Monte and ran through the brush and willows and spread all over the country and sank into the ground and stood on the ground. There were hundreds of acres of swamp ground below El Monte where the water stood the year around knee deep. He says he does not think the main channel of the San Gabriel was 200 feet wide way up above El Monte before 1862. He says the water has run everywhere in that section and the whole country below El Monte is made ground, his place is about 2 feet higher now than when he first got it. He dug a well up above El Monte and got pieces of wood down 140 feet and he says he has heard of the other wells over toward Azusa where they got wood more than 100 feet down (489-90)."

Mr. J.M. Guinn: "The flood of 1861-62 was the greatest of all. Nearly fifty inches of rain fell. The rivers spread over the lowlands and the stock took to the hills for safety. In Anaheim there was four feet of water in the streets, and spread in an unbroken sheet to the Coyote Hills three miles beyond. Arroyo Seco brought down immense amounts of drift which furnished fuel to the people for years. The rain began on December 24, 1861 and continued for thirty days with but two slight interruptions."

"The San Gabriel became dammed out on the level grounds and broke from its easterly course from El Monte and started a new channel west of El Monte (14)."

Mr. John Guess: "In 1861-2 there was another flood he thinks about the same size as 1852 and probably much larger. It rained for twenty days in a stretch, without stopping. He was in El Monte in the 1861-2 flood and that the whole country in that section with the exception of a sand ridge in El Monte, which runs through El Monte; the First National Bank and dept are setting on it and it runs on down toward old Mission – says all the early squatters settled on it, and with the exception of this ridge all El Monte was under water to another ridge about a mile easterly of this sand ridge (495)."

"He says the Rio Hondo through El Monte was originally called Lexington Wash and in early times, or up to sometime in the '80s, did not carry much water only when the whole country was flooded. It was a draw in 1862 and was filled with willows and elder bushes so thick you could hardly get through it on horseback, and was very shallow and did not look like a wash (495-6)."

"In the 1862 flood a part of the San Gabriel joined with the water of Walnut wash through Puente Ranch and as far over as Puente Hills the whole country as far over as Huntington Park was flooded and covered with water. In that section all the low ground for miles was under water. The San Gabriel came down on Azusa side and joined Walnut wash [sic.] and came down by Mud Springs. Used to be known by that name. There was a big spring with several acres of tullies [sic.] at that time, but the waters spread and did no washing (496-7)."

"In the 1862 flood there were some large washes made in between the Temple ranch and Old Mission Settlement, but were filled up again (497)."

Mr. C.E. Colton: "They used to talk among themselves when they first came and wonder why the Mexicans were such fools as to build their houses on the hills and pack their water, instead of building close to the water, but they knew after the 1862 flood (521)."

John L. Slaughter: "He considers the flood of 1861-62 the greatest of his recollection. He recollects when old Finias [sic.] Banning used to freight between San Pedro and Los Angeles and between Los Angeles and San Bernardino. It rained so much in 1861-62 that the roads became impassable and how Mr. Banning's teams and wagons bogged up on all roads (81)."

Mr. Joseph Mesmer: "It was Mr. Mesmer's duty to deliver bread about town and one point of delivery was where the old Occidental College buildings now stand. There was a regiment of soldiers stationed there, who took bread from him going up there every day he had occasion to notice the river. The river narrowed up near the Pasadena St. bridge and near this point the water was very deep. Below this the waters began to spread and yet along Aliso St. from Main to the east bank of the river it was all under water and impassable. True, there were places where the water was not so deep, and even points where land came up through the water was at Wilhelm and Aliso Sts."

"The river had no defined channel. It would spread out over the valley and sometimes the wash would be on first one side of the valley and then the other. There was a growth of willow and other swampy vegetation which greatly impeded the flow of the water and prevented erosion. There was nothing to cause washes. The stream was not confined but flowed where it would. There was little to damage and then it only overflowed. "There was probably not over 2,000 acres of land in cultivation in all the country about Los Angeles, and probably not more than 4,000 acres in Los Angeles County at that time which included Anaheim, where a German settlement had been started (107-8)."

Mr. Wm. R. Rowland: "I was born on the Puente Ranch in the valley of the San Gabriel river, and have lived there all my life. "The first great floods of which I took note were those of 1861. A great deal of rain fell that year and caused big freshets in the San Gabriel river. The waters brought down immense quantities of big timber from the mountains. In fact, we did not know what pine was until the flood waters brought it down from the high mountains."

"The was little, if any, farming, going on in those days (139). "Old Henry Dalton and Pio Pico were cultivating small patches of land but from lack of water they could do very little. There was nothing to damage as there was nothing in cultivation, and as there were practically no banks to the rivers, and when beds were filled the waters would spread over the country and go where the land would permit. The river really never carried much water except during the rainy season. Then the flats would be covered with water, and the stream bed was filled with quicksand."

"In the early days when the Mail [sic.] stage crossed the river at El Monte, during the rainy season, it was practically impassable, on account of the quicksand, except when the sand was packed down by first driving a herd of wild horses across the river and sometimes it was necessary to drive them across two or three times to settle the quicksand and make it possible for the stage, to follow their train. The old buildings are still to be seen at a place called Thompson's station [sic.], where the stage line crossed."

"However, during the dry part of the year there was no water in the river. In those days the people only attempted to raise cattle, horses, and sheep and relied upon the land for grazing only. It was very poor grazing land too, for all of the valley was covered with cactus and brush and very little grass (140). "Down near the old Mission [Montebello] the water would come to the surface and this is where the stock got their water. The cattle would graze up the valley and about every other day would go down for water; it was too far for them to go every day. This drainage from the swamps above formed what is called Rio Hondo."

Mr. J.R. Ramirez: "The flood of 1862 was the largest since that of 1825 (143)."

Mr. J. Frank Burns: "The largest flood in Mr. Burns' time was that of 1862. This flood did a great deal of damage to the few

people who were cultivating soil at that time. It carried away nine acres of land from Felipe Lugo's place, nearly ruined Mr. Argullas' and Mr. Wolfskill's orange grove, all of which was in the low lands from Downey Ave. south to about 9th St.
"The river needed to rise only a few inches and it would have gone back to its old channels along the west bank near Main St. The entire valley was a great lake or sea of water from Los Angeles to the sea both towards San Pedro and Ballona. For three or four weeks it was impossible to get to San Pedro except around by Ballona, and then the water would swim a horse across the highest place. Just how any one would go about controlling such floods I do not know. It rained incessantly for about thirty days and even before the last heavy rains began the ground was saturated with water (151-2)."

Mr. J.G. Newell: "The biggest flood he has known was that of 1862. The whole country to the south of the city was a solid sheet of water to the sea. At that time he had taken up a quarter section of land between Adams and Jefferson Sts. westward from Vermont. His home was back just a little ways from where the Catholic Church now stands at the corner of Adams and Vermont Sts. In this flood of 1862 there was about three feet of water on portions of this place, and this water came from the Los Angeles river [sic.]. From the hills they could see water extended to the ocean (153)."

5 FLOOD OF 1867-68

Mr, C.W. Caseboom: "The channel called the New River broke away from the San Gabriel in 1867-68 and emptied into the Los Alamitos Bay. The water spread out over the land over between Clearwater and Anaheim and as far south as Westminster. In 1876 there was a big flood in New River that did the same thing almost (1d)."

Mr. George Kuhrts: "In 1868 the valley was one vast flood; Watts, Compton, Artesia, Downey and all that vicinity was covered by water (24)."

"The floods of 1868 caused the change of the channel from the old San Gabriel river [sic.] into New River."

"The San Gabriel River continued in the New River channel until 1889 when it again broke westward for a time and emptied into both Los Alamitos and San Pedro bays. However, in 1891 it turned back into Los Alamitos bay and continued up until 1912 when it again broke out to the westward again."

"The floods into the Los Alamitos bay have been very beneficial to lands on the east side of Los Cerritos. In many places and especially in the channels, the ground has been filled in 12 to 15 feet. It has been the making of a great deal of alkali lands and has raised swampy lands into fine beet and corn land."

"The low lands below Sherman Heights in the southwest were all considered swampy lands, and were grown up with tulies [sic.]."

"The low lands southeast of Pasadena and east of Knob Hill were once swamps."

"People began to sink wells for irrigation purposes and this began to lower the water plane and then the marshes began to disappear (25)."

Mr. F.A. Coffman (Rivera): "There have been many big floods, but prior to 1867 none of them ever affected anyone. In fact, until 1890 the floods did not call for any attention. The overflow of the rivers never did any special damage, except sometimes a house would be washed away, otherwise the ground was merely overflowed, and we really believed it did good instead of damage."

"In 1867-68 what is called New River was formed by the river splitting above el [sic.] Monte, the new channel going into the east of that place."

"There is some confusion about New River actually is. Some people call Lexington Wash the New River, but there was never any water went over that way until 1890. Lexington Wash broke through at that time and joined the Rio Hondo just above the Old Mission bridge, and from that point down the river came to be called the Rio Hondo, when in fact, it is the old San Gabriel river. This Lexington Wash is understood by some to be the New River (54)."

"The Rio Hondo was a small stream that extended only a mile or so out on the flats toward El Monte. Its water came from springs, etc., and the storm waters from Pasadena. Eaton Wash, Bailey Cañon, Little Santa Anita Cañon, and the Santa Anita Cañon all joined the Rio Hondo near the Old Mission."

"What is commonly called the Rio Hondo is really the old San Gabriel river [sic.]. Its natural outlet is to the sea, and it was formerly through the present Long Beach harbor. When they began developing the harbor they threw up a levee above the harbor, and diverted the water westward. This threw the water on to the Salt Works people, and they said 'we do not want this water here, it will fill our land up,' so they put up a levee to divert the water further westward, and now it is all going into the San Pedro harbor. It is very necessary to protect the San Pedro harbor, and if the water can be put over into Los Alamitos Bay it should be done (55)."

Mr. Andrew Joughin: "the New River channel was said to have been caused by a man plowing a few furrows, and from this the stream got started. Merely an incident at that time. The Rio Hondo at one time carried very little water and amounted to very little at one time. Lexington Wash, however, is what made the difference (79)."

Wm. R. Rowland: "In the flood of 1868 the San Gabriel cut over to the eastward [sic] just below the confluence of the San Jose Creek and the San Gabriel River is. This is what is called 'New River' (141 R)."

"There was only one change in the river as far as I know, that of 1868. In that year the water made quite a change in its course. It formed New River, leaving the old channel to Long Beach dry for several years. In about 1876 the river began to flow to the west of El Monte in a small amount."

"This was caused by several farmers on the west side trying to turn the water over their way for irrigation purposes. There was some trouble about this for several years as it flooded some of the people below, and they in turn tried to turn the water back toward Bassett. It has gone on so long that there is a large amount of water going to the west, perhaps as much as goes down the east branch of the river (141a R)."

Mr. J. Frank Burns: "The next big flood that came was of 1868. That did not affect us so much as the flood of 1889. The 1868 flood caused the San Gabriel river [sic.] to change its course. The San Gabriel once flowed where the town of Azusa now stands, that was in 1862. In 1868 the river changed more over to the eastward and broke out into what is called New River." "Lexington Wash was caused by an irrigation ditch, until now the people think that it is the old river (152)."

Tom Sanchez (Los Nietos): "He says the 1867-8 flood was when the New River was formed he was still a small boy but remembers that they had to take out several people down near Pico over to the bluff on the Monte Belle [sic. -probably Montebello] side. After New River broke out practically all the water went that way up to about 1891-2. Then the water of the San Gabriel canyon [sic.] commenced running over on the other side or down the Rio Hondo through El Monte, came over up near Duarte, and has continued to get more and more of the San Gabriel canyon [sic.] water until at the present time it gets the most of it (246)."

Mr. W.R. Dodson (El Monte): "He says that a man by the name of Henry Roberts, now dead, told him that in the '67 flood that he had lived down below the narrows, and the water very nearly stopped running, and it had been raining hard, and he took his gun and went up to the hills by the narrows to see what had stopped the water, and the water was blocked by logs and drift, and he says some 25 to 50 feet high, and backed up three or four miles, and he says when it went out made a noise loud enough to be heard two or three miles, and broke logs four or five foot thick, and he claims that was what caused the New River to go off from the San Gabriel channel.
"Mr. Dodson says that after the 1867 flood he hauled wood from one place below the Narrows for about two years. There was a patch of ground about two acres in size and from 6 to 20 feet deep with logs and that had come from the jam at the Narrows, and that there were lots of logs as large as five feet in diameter that had been broken as if they were matches. He found a dead grizzly bear out in the center of the pile of logs after he had been hauling logs from the pile quite awhile. The skeleton of the bear and hide was all there, and he said it looked as if it had been caught in the flood, and tried to save himself by riding the drift wood. Anyway he was there, and it showed he came down in the 1867 flood."

Mr. J.D. Durffy: "He thinks the biggest flood of his time was the one of 1867-8, when the water broke out of the San Gabriel channel and formed New River. It broke out a little above old Temple place and continued south instead of making the turn

over toward the point of hills just below Old Mission settlement, and all the water of San Gabriel went into New River; all the water of San Gabriel canyon [sic.] has since flowed into the Rio Hondo, with the exception of a small amount of overflow in one or two of the big floods, has come by way of Lexington Wash, or up above El Monte near Duarte (273)."

"In the 1867 flood there was quite a lot of ground cut out on the Rio Hondo below Old Mission, and up against the bluff on the Old Mission side; says the road used to be in the flat and there was quite a lot of good ground, some in vineyard between the bluff and the river, and most of it was washed out and they had to cut a new road along the side of the hill. "

"In the 1867 flood there were thousands of cords of wood brought down from the canyon and scattered over the country. There were hundreds of teams hauling wood to Los Angeles and other small towns for weeks. There was a small slough, or branch now filled up just below his house, that was filled chuck full of cedar and hemlock logs, some as large as three feet in diameter, and he had wood for years (274)."

A.B.P. Patten (Downey): "He says the flood of 1867 made New River, but it did not cut much of a channel. The channel it cut in 1867 did not carry one-tenth of the water that went down to Alamitos Bay, that it spread all over the country and made lots of sloughs and swampy ground down near where Belleflower [sic.], Clearwater and Hynes now is. Says that he has caught fish in the sloughs and the people used to shoot ducks over in that section. The 1884 flood cut the channel much larger and deeper, and changed it in some places he thinks, generally to the east (303)."

"When New River formed it followed down about the old irrigating ditches in 1867 (304)."

"He says that after the New River broke out in 1867, the Rio Hondo went down in a short time to a small flow. They could drive across it on the old telegraph road a short while afterwards, and there was quite a lot of quicksand in it too. "

"He says after the 1867 flood the San Gabriel continued to fill up and get smaller, that the New River carried most of the water until three or four years back. The bed of the San Gabriel had filled up to such an extent that just before they put in the protection work the bed would not average more than twenty-five to fifty feet wide and six to eight feet deep from a short distance above the S.P. to Santa Ana down by and below the County farm, and there were thick willows on either side of the banks (307-8)."

Mrs. Charles Forman: "Her folks owned an interest in the Puente ranch and their place was not very far from Puente Creek and she remembers that water very nearly got into their house. Does not know the exact year but it was sometime in the '60s. She remembers when New river [sic.] was formed and says the majority of the water went that way after New river [sic.] was formed until a few years ago. The country below El Monte was swampy and low and covered with willow, lots of springs and lakes of water and there was where Mission Creek got its water

from, and was a live, clear stream of water, not very wide but fairly deep. They used to cross the streams wherever they came to them and quicksand would allow. There were not much banks to them. The country was a stock country and the flood in the early times did no particular damage and no cutting to speak of. It was simply an inconvenience about getting anywhere. Would have to wait until the waters went down (351-2)."

Mr. A.J. King: "In 1867 there was another large flood and a quick rush of water and the San Gabriel broke and formed New River and New River carried nearly all the water of San Gabriel for several years. Mr. King says that the cause of the New River breaking out from San Gabriel was that he river had choked up with willows and brush and kept filling until there was no channel left and instead of it making the turn down by the Temple ranch [sic.], it just continued on straight where there was a low place or swale through the country. He says there is no doubt in his mind but what the river had run on the New River side of the Valley before 1867. Says the sand ridges and formation of country shows that very plainly (360)."

Mr. W.T. Slack (San Gabriel): "He says the cause of the New River forming in 1867 and going down to Los Alamitos by old Pico place was that the willows had grown up so thick and large down by the Temple ranch [sic.] and the Old Mission settlement, that when the water came with a rush it just simply knocked the trees down and covered them up with sand and formed a bank or barrier, and turned the waters off down by the Pico ranch. Some of the trees are buried there yet and some of them were uncovered in other floods."

"Before the '67 flood the Rio Hondo at Old Mission was a small live stream, fed from springs and marshy ground between El Monte and Old Mission (393)."

Mr. Tom Hutchinson (Glendale): "Says the San Gabriel broke out below El Monte and went down the country to Los Alamitos Bay in the 1867 flood, and formed New River. He says at that time it was one complete sheet of water from Los Angeles to Santa Ana with the exception of a few high spots. Says there were very few trees in the country at that time and all of them were on high ground, and no bridges, fences, or railroads and the water had a clear sweep (395)."

Mrs. John Gaines (Compton): "She says she was not in the 1867 flood but she had a sister (now dead) that was, and she told her they could not get out of their place for six weeks. They lived on Olive St. between Temple and Gibson Sts., right near where the river cut out in the 1914 flood. She said men had to wear boards tied to their feet to keep from mireing [sic.] down (421)."

Geo. Foster: "He remembers the 1867 flood very well and that was the year the New River broke out from the San Gabriel river, and he says after the New river [sic.] broke it was only a short while until there was hardly any water running in the Rio Hondo, in other words it took nearly all the water after it was formed and continued to do so up to three or four years ago, with the exception of when there was a very heavy flood and then the Rio Hondo would get quite a lot of water."

"Says the Rio Hondo used to be much deeper than at present; when the Foster bridge [sic.] was first built they could drive a four horse team under the bridge and sit on the seat of a wagon and it has since been raised some three to four feet and you can just about walk under it at present. From Foster bridge [sic.] up the banks were well defined and it had quite a bit of depth but from the Foster bridge [sic.] down there were no well defined banks and it always overflowed very badly. The country south and west of Foster bridge [sic.] overflowed badly in flood seasons over as far as Watts and all through the Tweedy ranch and Compton country, but hardly ever on the easterly side. He says in early days the Watts country and vicinity was swampy and tullies [sic.] grew all through there (445-6)."

Mr. Jotham Bixby (Long Beach): "The eastern boundary of my ranch was the San Jose Creek, and the western boundary was the Rio Hondo, and also the boundary between my place and the Santa Gertudes Ranch."

"Up to 1867-8 the San Gabriel River was not known to have flowed into Los Alamitos Bay, but in that year great floods came, the greatest in my memory, and cut what is known as 'New River.' The flood of 1889 again cut through to the old San Gabriel River, and I went up just below Rivera and attempted to turn the San Gabriel back into the New River channel, but my efforts were of no value at this point, in fact, were all washed away. However, higher up, the river again went back eastward into the New River channel, and we did nothing more about it. The San Gabriel continued to flow into this channel until 1912, when it broke out again into the old river bed. The river is now changing rapidly to the westward, and indications are that it will be flowing through Compton when the next big flood comes (456-7)."

"In 1867 the delta of the San Gabriel spread out into several branches and were up the valley about between the old adobe house on the north end of Los Cerritos and Dominguez. Below this point it was all a mass of willows and marsh, and used for grazing purposes. After this flood willows sprang up all over the valley, up around Compton, Watts, Huntington Park, etc. Before this time the cattle had grazed on willows and kept them down. There were two or three very dry years between 1862-66 and thousands of cattle starved to death for lack of grazing. They had cleaned up this valley of its marsh growth for there were so many stock, but when the floods came in 1868 the willows came back again."

"Terminal Island was known as Rattlesnake Island because of the great number of rattlesnakes that infested the island. Rattlesnake Island was entirely surrounded by water, which was only navigable to light draft vessels (457)."

"Only a few years ago I sold the low lands just west of Long Beach for only eight dollars per acre, as I believed it to be of no value whatever. It was used, in the summer time to make salt by letting the tides fill in the flats with sea water and then diking it off to evaporate (457-8)."

"The low lands east of Los Cerritos [location?] were after nothing short of an inland sea."

"The flood of 1868 was the greatest I have known. There was no way into Wilmington, except by water for a month."

"Since the sugar factories were built east of Los Cerritos they have been surrounded three times by floods. The Santa Ana River has overflowed into Los Alamitos Bay covering all the surrounding country."

"In 1868 a great deal of trees, timber and debris came down the river. I piled up wood enough to do me for several years. "If it was not for San Pedro Harbor I would say let the river go wherever it likes."

"Before the New River was cut by the floods of 1868 the only water that flowed into Alamitos Bay from Whittier Narrows was the San Juan Creek (458)."

Mr. George H. Bixby (Long Beach): "I was a small boy during the floods of 1868, but remember well the accounts given by my father and others of those days. It was this year that the San Gabriel broke over into what is now known as New River. Prior to this time the San Gabriel river had never been known to flow into Alamitos Bay. The only waters that flowed into Alamitos from that section of country were the La Puente and San Jose Creek [this conflicts with the above quote – we need to sort this out] (462-3)."

"However, in 1868 the San Gabriel broke through eastward and formed the channel between Rivera and Whittier, somewhere near it present location, which it has held ever since. In 1889, or just afterward, an attempt was made to turn the river back into its former channel, and I spent many thousands of dollars building a levee or dike, to turn the San Gabriel back to its old location , but in the storm of 1891 this work was all washed out and lost. No further attempt was made to turn the river back into its old channel."

"In early days the Rio Hondo did not carry a great amount of water. It had a well defined stream bed, and at certain places there were many deep holes where the 'Vaqueros' swam their horses to give them a bath and wash off. The word 'hondo' means deep in Spanish, hence those deep holes."

"The San Gabriel River had not flowed into the San Pedro harbor until 1912, when it again broke through to the westward (463)."

Mr. George A. Peck: "In 1868 our troubles began with the river. We lost about 150 acres that year, and each succeeding flood took its quota of spoils until there was barely 150 acres left of the original 480 acres which my father bought."

"Lexington Wash was commonly known as Lick Skillet wash. In those days and even now the river bed was higher than the land on each side. When the floods came down it was no difficulty to direct the water to either side of the river bed. The water would flow readily either way and if left alone it would usually split and go in each direction. However it was not left alone (468-9)."

"In our case, the water began washing away our land and we wanted to protect our place and get rid of the water. Many times I have gone up the river, taking a few Indians with me to move a few boulders about and get the water going the way we wanted it to. By placing a double row of boulders across the stream it would raise the water level enough to throw the water over the other way."

"There is no doubt that the water once flowed over the Azusa way may in fact right down through the town, or where the town now stands, for big boulders are to be found there now, and there is no question where they came from. Gradually that side of the valley has filled up forcing the river westward and this accounts for Lexington Wash."

"However, Lexington Wash would never have been if a little care had been taken to turn the water back when it was inclined to overflow into the westward. There was no one in charge of and every one did what seemed best for himself. Lexington Slough was a low place and nearly always swampy. The water seemed to rise to the surface there, and then the 'New River, so called in that district, would empty into it also (469)."

"This 'New River' joined the Rio Hondo and previous to that time Rio Hondo carried very little water. Even today it would not be difficult to turn all the water down the east branch of the San Gabriel River. We used to call the Lexington Wash or that branch of the San Gabriel 'North River' (469-470)."

"From the fact that the Reed ditch was located down at Four Corners or Covina, as it is now called, shows that the water would easily flow in that direction. "

"There seems to be a material that cements the gravel and boulders together making a good river bed which does not wash readily, and this probably accounts for there being so little channel as there is for the San Gabriel River."

"During the floods one could hear the boulders rolling and grinding in the bed of the stream. These would pile up down in the river (470)."

"Of the two rivers, the San Gabriel carries more water than the Los Angeles. Naturally too, the San Gabriel caused the greatest amount of damage in the lower valleys (472)."

Mr. S.D. Thurman (El Monte): "In 1867 there was another big flood and the Monte country was all flooded again, but there was no cutting to speak of only what the people helped it to cut to save their property. There was some bad cutting done down toward Old Mission and around the point below Old Mission, but nothing to speak of up at Monte. He says he went from El Monte to San Fernando during this flood and from about where Burbank is now to San Fernando was in water nearly all the way from knee deep to where it would swim a horse."

"This was the flood that New River went off from the San Gabriel down near the old Temple ranch, and went on south instead of making the turn around toward the hill down by Old

Mission, and it followed the low part of the country and went down to Los Alamitos Bay (490)."

"He says there were cords and cords of wood came down from the canyon on the 1867 flood. There were trees 60 feet long and 5 feet in diameter brought down and in some places it scattered it all over the country and in others it stacked it up several feet high."

"He says in 1862-1867-1884 the whole lower country was more or less under water. And he says there has been water all over that country that is not mesa ground [;] that was the way it was made. He says there was some work done above the Peck place to keep the water from coming over on the westerly or El Monte channel of the San Gabriel River, but does not think it ever amounted to very much, he says he does not know whether there was anybody helped the water to tear the dam down or not, but he does know there were people down Downey way and others that were interested in keeping the water over in the westerly branch of the San Gabriel. There was quite a lot of fussing and turning of water up by the Santa Fe Railroad sometime about 1890. He says he helped to start the westerly branch of the San Gabriel where it is at the present time just west of El Monte, in trying to protect their property in 1862 (491)."

Mr. J.J. Morton (Compton): "He says the 1867-8 flood formed a lake covering several hundred acres of land at least a mile and a half square, above and between Gardena and Los Angeles on the old Amstoy Place, and was known as Amstoy Lake, and he thought he would always be there, but disappeared, he does not know just when, but was there several years. "

"He says he has never seen the water run over to Ballona country, but is positive it has done so, as it was very near high enough in 1867-8 to do so, and every indication points that it has done so."

"In the early days of his time, all of Watts and Willows were swamps, sloughs, and tullies [sic.], and where the black soil in Watts is was a tullie [sic.] and peat bed. He says some people used to cut and dry that soil and burn it. It afterwards dried out and they burned it off and cultivated it (506)."

"He says that when the big water came in December 24, 1867 it came in a rush and looked like a wall two or three feet high; the country was covered with mustard patches which a man could hardly walk through – higher than a man's head, and the waters gathered that and brush, and he claims thousands of snakes, squirrels, and rabbits, and the next day the bed of he stream was practically level with the rest of country, and the brush, mustard, and sand went on down to Rattlesnake Island, and filled up thousands of acres of sloughs, and connected the island with the main land."

"He says they went above Compton and tried to turn the water back into the old channel, but could not do so."

"He says in 1867, when he first cam to Compton you could see only two trees in the whole valley, one of them is still standing

(the landmark) on the north line of the Rancho San Pedro, both trees were sycamores. In the spring of 1868 he says the willows came up nearly as thick as the mustard was before. He says the flood brought driftwood down the San Gabriel to the mouth of the canyon, and spread out over thousands of acres, known as the old Dalton place, and that there were thousands of cords of wood, some trees 60 feet long and four feet in diameter. He got all of his wood from there for two years and most of the wood for Los Angeles was gotten from there. He says orange orchards cover the same ground now (507)."

"According to Mr. Morton, the San Gabriel River used to divide and sink and spread out about where El Monte is now, and then below there start off again. Says there was no well defined channel above El Monte before 1868, that he could see, on either the east or west side of El Monte. Was cut up into several channels and the water sank and stood on the ground down below the Monte. Was a regular swamp below El Monte. The 1868 flood cut out a channel on either side of El Monte (508)."

Mr. Jesse Hunter (Rivera): "He was living in Los Angeles in 1867-8, and running a livery stable and wood yard where the Angeles Hotel stands at the present time. In that flood the Los Angeles river [sic.] went down Alameda Street in the city of Los Angeles. The southwest section of the city was a lake as far over as the Cienega country. Says he was delivering wood, and sometimes he would get into water belly deep to his horse. New River was formed in that flood, and the whole section of country below Old Mission settlement was a lake with the exception of a few high ridges. The Los Angeles River got very near high enough to go out through the Cienega country in that flood (514)."

"He says in the 60s the bed of the San Gabriel river [sic.] was not much of a bed below the foster bridge, just wandered over the country, but the Foster bridge [sic.] the river bed was deeper than at the present time. He says old man Lugo brought 78,000 head of cattle from his San Bernardino ranch some time in the 50s and turned them loose in the valley, and they kept all the willows and brush and grass out of bed of the stream. Mr. Hunter says that after the New River was formed it carried most of the water up to four or five years ago. The country over between El Monte and Old Mission was a swamp and standing water, there were hundreds of acres of it, and there was where Mission Creek started, and the stream was a live stream, about 20 to 30 feet wide, and not very deep at the Old Mission settlement (514-515)."

J.S. Brookshire (Downey): "Came to Downey in December 1867, from San Bernardino with some other people with an ox team of lumber and a mule team of lumber. Says he was about fifteen or sixteen years old at the time. Says it has been raining some and on December 24th it began raining hard and the ground was very soft and the stock was about given out, and they were in a hurry to get over near some ranch where there was going to be a wedding. So they unhitched the wagons and left them just a little below where Pico bridge [sic.] is at present, or just a little below the old Governor Downey house. He says after the flood went down they went back to look for the wagons and right where they had left the wagons was

where the main part of New River was, and it has been in that particular section ever since. He says it did not wash much of a channel, but spread all over the country, and the 1884 flood deepened and made much more of a channel. He says the lumber on the ox wagon was still on the wagon because it was chained on, but it was washed quite a ways down the stream and completely buried and turned upside down with just the hind wheels sticking out. The rest of the wagon was completely buried in the sand, and the lumber on the mule wagon was not fastened on and all they found of it was the front wheels and tongue; found that by the tongue sticking up."

"He says the New River is very nearly in the same position from opposite Downey north to where it left the bed of old San Gabriel now as in 1867. Says it left the bed of San Gabriel about one and one-half miles north of Pico bridge [sic.] (517)."

"He says the channel of the San Gabriel was practically the same from 1867 to 1914 when the Foster bridge got blocked and turned it west about one-half mile (518)."

"He says the majority of the water of the San Gabriel Valley has run into New River since 1867 up to about four years ago when the San Gabriel has been getting more and more (518-9)."

"He says there were no willows in the rivers to speak of until after 1867 (519)."

Mr. Victor Manzanares (El Monte): "The flood of 1867-68 was very great, and changed the course of the San Gabriel River below to what is called New River, which empties into Los Alamitos Bay. The whole valley was practically covered with water that year. No damage was done to amount to anything as the water spread out and did not run so fast as last winter. The reason for that was in those days there was lots of brush and trees everywhere. There were also many swamps and some lakes which all helped to keep the water from running off so fast."

"But to show that there has been great floods here just above my place along the banks of the old Rio Hondo, we have found 'Alamos' four feet in diameter, and other kinds of trees as well which were very large. There used to be willow trees in the marshy land here in the valley 3 feet or more in diameter. These, of course, have now all disappeared."

"The San Gabriel River never flowed over on this side of this valley until 1867-68. It broke over some in those days, but the most was done by men who wanted to protect their land which was being washed by high water on the east branch of the river (534)."

"There used to be some trouble between the Americans who were trying to turn the river either to the east or west. Sometimes some men would go up above El Monte, where the river divided, and put a dike or bank across the river to turn all of the river to the east or back into its original bed. Other men would find it out and go up there and tear their work down and turn the water down the west side, which would come down and join the Rio Hondo. There was some bad feeling

about turning this water from one branch of the river to the other and sometimes it was necessary to guard the work with a gun to get it to stay there. I know three men who were sent up there at night to break one of those levees (534-5)."

"But we have always called the channel of the east of El Monte near Bassett, the original and only San Gabriel river [sic.]. This other branch was never called the San Gabriel river by our people. The Rio Hondo we always thought of as an arroyo, nothing more. It was only a drain from the swampy lands between here and El Monte, and was only a couple of miles long (535)."

Mr. Sylvester Rogers (southeast of Compton): "About Christmas 1867 the big rains began, and flooded a great deal of the country. During the 1867 flood the water broke through and ran across the Laguna and then down through Mr. Lugos and where Judge Thomas lived, after it cam to Tweedy's and connected with the San Gabriel, and they both ran together. It caused a great deposit of debris on about an average of two feet deep."

"The neighborhood of Compton was frequently overflowed by the waters of the Los Angeles River. I consider that the deposits left by the overflows increase the value of the land. The overflows raised my land about two feet, and the effects have been about the same upon the adjoining land. Every farm there has been benefited from the floods (543)."

"Compton is nearly south from the break. Previous to 1889 the Los Angeles River flowed all over the country from San Gabriel river [sic.] clear to Compton Creek. When I first moved to my place the Los Angeles river [sic.] ran right through my farm. I moved there about twenty-five years ago. It filled up that year above my place and has never flowed in there since. After that it ran mostly east of my place – about half a mile – or ran there every flood until the flood two years ago. As near as I can recollect, the bank of the river where the break now is, was as much as six feet high-----At the time of the flood of 1867 in coming to Los Angeles we had to go clear around the Laguna on the east side. We went right up through what is called the San Antonio settlement by Lugo's and kept near the San Gabriel river [sic.] until we got past the Laguna. We had to travel away east of where the Southern California Railway now runs across the Laguna Ranch. In 1867 the water went through by the lake, where the break is now. I do not think there was any break in 1867. I think the water just overflowed the banks. It did not make a break – just overflowed the banks and ran across the level country there, until it came to the lake, and then it turned and ran right down by the Lugo Ranch. I don't think the water flowed, but the water stayed on the Laguna Ranch at that time about a week, then most of it sank back into the old channel when the water commenced going down. The water on the Laguna Ranch at that time did not have any defined channel. It spread out in a thin sheet (543-4)."

J.G. Newell: "I also recollect the floods of 1867 or 1868. I think perhaps it was both years, and I know that at that time the water ran in the same place it did before-----the water at that time came from the Los Angeles river [sic.]. I never saw any difference in the sand or debris in from 1862 and after 1868. I was

down there picking up driftwood and never saw any difference (545)."

"Sometime "in the early 1870s" "a ditch heading below Duarte broke out and the ditch became what is now known as Lexington Wash" (*from the LA Times 1916*)."

Mr. Walter P. Temple (El Monte): " We have always understood the old and original San Gabriel River to be the one down the east side of El Monte or Bassett Way. The break or branch down the west side of El Monte was a new wash which first broke out in 1871. There were efforts by various parties to turn the river back to its old channel but there were other parties who wished it to continue to the westward and who would help undo or help to undo the work of the first parties. It became serious for time and force was used in the way of shot guns to maintain the levee built. But none of this water belongs on the west side, and really should be kept to the eastward. It would not be right to have the people pay for two channels when one is really all that is necessary (532)."

"Lexington Wash got its name from Lexington, which was once the name of El Monte. There were a lot of Kentuckians in there and they gave it the name."

"Rio Hondo never carried very much water. There was never enough water to cause any washing although the water from all the canyons from Pasadena to the San Gabriel canyon [sic.] flowed into it. In early days all the lands above our place here up to El Monte were low and swampy. There was a very heavy growth of willows, tullies [sic.], and balckberry [sic.] vines over all. It was almost impossible for water to have washed anything or to have had much velocity. When the big rains came the water drained off slowly and did practically no damage (533)."

6 FLOOD OF 1875-6

S.M. Bise (Compton): "He says in 1875-6 there were heavy rains and the country just east of Compton and near Lugo was badly flooded. He thinks the majority of the water ran about where Temple St. is at that time (501)."

J.J.Morton (Compton): "In 1876 there was a bad flood. The water was so deep between his place and Compton or near Long Beach Blvd. That he had to put his feet up on the neck of the horse to keep them of the water. That flood was particularly bad in the section of country near Lugo and a part of what is now Linwood, and a portion of the Tweedy ranch (509)."

7 FLOOD OF 1884

C.W. Caseboom (Los Cerritos, Long Beach): "But in 1884 we had a big one. I woke up in the night and thought something unusual was going on and upon looking out found that we were surrounded by water. I woke up my folks, and also the Martin boys who were with us at the time. I got them out and had them hitch up the team, for at that time I was crippled and was using crutches to get about."

"My wife and baby and one of the boys and myself piled into

the wagon and drove down toward Long Beach. The other boy rode a saddle horse, which we had, and went on down to my father-in-law's to wake him up so he could get out. When we reached about where the gas works are the water was just getting down there and we barely got out ahead of it. But my father-in-law did not have time to get out before the water caught him. He had to swim his horses and wagon out, the water came down so fast (1)."

"We had a camp up on the Mesa where the Polytechnic High School now is, so that we were at home again (1-1a)."

"But it rained a great deal that winter, and we did not get back to our place for a month or six weeks, there was so much water in the valley."

"Kincaid had a beautiful place fixed up and to see it you would think he was going to stay there for all time. It was nicely laid out and he had a good house and barn, well and so on, but this flood swept him clean. It carried away his house, barn, and fences. It even lifted out his well casing which was twenty-eight feet deep and carried it away. All that was left of his house was the floor and it was sunk eighteen feet below the surface. The water got started to cutting underneath it and simply whipped the silt from under it and let it down. It just about ruined Kincaid."

"However, he went back to work and moved back onto higher ground and built again (1a)."

Mr. A.N. Hamilton: "In 1884 Mr. Hamilton had his corrals and house at about Washington and Figueroa Sts. The rains began on the 7th of February, 1884, and there was little let up for about thirty days. The river began to overflow and Mr. Hamilton began to get uneasy about his cattle, which were in the corrals. The cattle were lowing and began to get uneasy. To make matters worse, with Mr. Hamilton, however, he was sick in bed. But something must be done, so he got up and went out into his corrals, got the cattle out and onto higher ground. The water was as deep as three feet in places and he could not tell how much deeper it would get (28-9)."

"This water came, mostly from the Los Angeles River, breaking out from the river channel in Alameda St. about 14th St. Then it flowed out through the southwest by Exposition Park through the Cienega and into Ballona Bay (29)."

Mr. Geo E. Place: "In his estimation, the flood of 1884 has been the largest in his experience. It took away every bridge except the old covered bridge at Aliso St. The river channel was always shallow and when the floods came the water overflowed the lowlands of the river and went wherever the ground was lowest. The water used to go down Central Ave., sometimes going east and many times west of Central Ave. He has seen the water three feet deep on Manchester and Central Aves. (32-3)."

"In 1884 the floods covered all the lower country and at Compton he has seen rowboats going about from place to place to buy supplies (33)."

Mr. Randall H. Hewitt: "The first big flood was in 1884. There were two sections of it. The first came down in the latter part of February, but did little damage. A great quantity of water fell and the country was very well soaked. Every one thought the storm was over. The City Council had been forced to take notice of the great danger the city was placed in should another flood come of equal magnitude or even greater (34-5)."

"To this end, Capt. Thom. who was then mayor, appointed a committee of three, Mr. Wm. M. Humphries who had had considerable experience in fortifying rivers against floods. Mr. Mullhassen who had done notable work on the Changres river [sic.], and Mr. Hewitt. Mr. Hewitt says he did not have the experience that Capt. Thom thought he had although he had witnessed and experienced the actions of rivers in the east."

"At this meeting, when it was decided to take some action to protect the city against overflow by the river, Don Antonio Coronel told them that there was a map in existence among some of the old early citizens which showed the river flowing along the bank which is now 6th St. from the southwesterly into Nigger Slough and into Playa del Rey and Ballona. Don Antonio said the map was practically only a sketch map but clearly showed the relative location of hills and rivers; that succeeding floods had gradually forced the river eastward in its channel to where it now is (35)."

"Before this committee had gone out to inspect the river, a second flood came down within six or eight days after the first one and this one did the great damage to property (35-6)."

"Where the Santa Fe Station now is was a fine vineyard; about First St. there was a fin orange orchard, and the land was, in fact, cultivated along down the river as far as Ninth St. Mr. Wm. Workman had a fine place over towards Boyle Heights side of the river. However, the greater damage was done on the west side of the river."

"The water broke through the levees and over the lowlands and where the Santa Fe Station now is the water was about three feet deep. All of this water flowed westwardly into Alameda St. Some 41 houses were washed away in the lowlands near First St. and below. In those days the streets ended at the river. The people built their houses on the sand and when the floods came lost them."

"At the intersection of First St. and the river a test was made for solid rock or good foundation. A 'divining' rod 70 ft. long was sunk its full length and no bottom was found. There was nothing but sand and gravel all the way down."

"All of this country has been filled in and for thousands of years material has been washing down from the mountains as is attested by the mammals being found six or seven miles west of here (36)."

"The old winery of down about 9th St. was completely washed away. The firm recovered some of their goods but a great deal was lost and much taken up by people who found the bottles and casks of liquors scattered about the country. Six or eight years after the flood a man was ploughing [sic.] his field when

his plow struck something solid. It had a peculiar 'feel' to it and he investigated and found a ten gallon keg of brandy buried there (36-7)."

"The S.P. [Southern Pacific RR] had an office at the east end of the Aliso St. bridge [sic.]. The flood carried off the office and everything else. There was an iron safe in the office but it was washed into the flood and never found. It sank into the quicksand and was lost. A man had a laundry on First St. near the river. He had a small engine and boiler to operate his machinery and to pump water. The floods came a partly washed everything away. He found his boiler out on the edge of the river, got some rope and thought he had secured it from being further washed away. The next flood, however, carried it away and was never recovered (37)."

"After the flood of 1884 a company was formed to build a railroad from Los Angeles to San Gabriel. It became known to a few people that there was a great transcontinental railroad behind the project. The city gave them a great deal of land for yard and building purposes, and helped secure right of way over private properties. After all this was completed the Santa Fe came in and acquired the San Gabriel railroad project (37-8)."

"The incident of the 1884 flood was when both approaches to the one of the bridges went out leaving two cows and a horse on the middle of the bridge. It was several days before they could be taken off and hay and water was taken out to them."

"It was by heroic deed of Martin Aguirre in the flood in bringing people out of the river that he was elected sheriff (39)."

Mr. Geo. A. Wright: "The flood of 1884 was probably the greatest in his time. The whole country was flooded. In Los Angeles the water came down almost up to Main St. and he has seen the water three to four feet deep in Alameda St. These flood waters would cross over Main St. and flow to the Southwest into Ballona Bay. This was also the case in 1889. This was no doubt the natural channel of the Los Angeles river [sic.] in earlier times."

Mr. Geo. A. Nadeau (Long Beach): "The flood of 1884 carried away the Nadeau vineyard, some of the houses and most part of stock of liquors. It was just after the death of his father and the winery was leased to a man named Cola. An instance of the force of the waters, there was a double-ended cask which held 2000 gallons rolled along by the waters for several hundred feet. It was expected that it would go to pieces, but it did not (43-4)."

"No one could tell where the waters would go, especially on the ground east of this place. A piece of land east of here between the rivers was for sale, and a man named Frank Cox, who lives just north of it, was the prospective purchaser. Mrs. Nadeau went over to close the deal. While he was there it began to rain, although there did not seem to be any prospects before he started out. The business finally closed; he started for home about dark. He had a top buggy but in spite of this protection he never was wetter. The next day the water came down and literally floated the Cox house away (44)."

Mr. S.B. Reeve: "The first flood that amounted to much, and in Mr. Reeve's estimation, the largest he has ever seen, was that of 1884. In those days the Los Angeles river [sic.] practically had no banks below Seventh St. and very low ones above that point. That flood did not do so much damage in some ways as the flood of last winter [1914], for the water spread out and, because there were trees and brush and other obstruction on almost all the land, the velocity was slow."

"The people did not realize how much the water would rise and, therefore, built their houses all over the flats, then when the high water did come it did great damage and caused much suffering. A few lives were lost."

"The water broke out of the river banks and flowed towards Alameda Street which is lower than the bed of the river. The water came up halfway between Los Angeles and Main Streets on First, and also flooded the lower portion of the city. At Maple and 24th St. the water was between three and four feet deep (48)."

"The floods poured westward along the then, Washington Road and Jefferson Street, towards the southwest into Ballona Creek and into the Ballona Bay. All through the southwest, clear to the sea, was a solid sheet of water. All of the country called Cienega was a great lake. Nigger Slough was swelled to great proportions, and all of the country back of Venice was a sea of water. Last winter a great deal of water came from Los Angeles and flowed into Venice as everyone knows (48-9)."

Geo. E. Bouton: "The flood of 1884 was very bad, washing out all of the bridges, except one, the old Downey Avenue bridge [sic.]. A good many houses were washed away, and some people drowned."

"One instance of the danger of the flood was that where a house had washed away and lodged against a bridge pier. Gen. Bouton was tying timbers together to make a raft to push out in the stream and then let it down to them with ropes, when Martin Aguirre came along and without hesitation rode his horse into the torrent, reached those people, and in two or three trip had rescued them. It was a plucky thing to do and I have always admired Martin for doing it (60)."

Mr. L.W. Head (Long Beach): "He came to Los Angeles in 1878 and the flood of 1884 was the first, and by far the greatest, in Mr. Head's experience."

"Before the rains began to fall there was very little moisture in he ground, not enough to bring up the seed, and the ground was to dry and hard to work. About the 20th of February (approximately) the rains began, and continued without interruption for about 30 days, and it was believed the sun was not seen during that time."

"The ground became saturated, and then the water began to gather and collect, forming great lakes, and spreading out all over the country. There was water everywhere."

"The Los Angeles River carried away the Nadeau Vineyard, the sheds, warehouse and everything else moveable. The wine cask was carried out to sea and lost."

"The S.P. Railroad was washed out for miles around Los Angeles, and on the Santa Ana Branch it was probably 30 days before there was any traffic on the road (88)."

"In Los Angeles, Mr. Head saw the water at Alameda and Commercial Streets more than waist deep to a man. This is particularly remembered for Mr. Head got a man to carry him across the stream at this point, and particularly remembers the depth."

"Water stood all over the lower country for sometime and was practically impassable. From the west portion of Long Beach to Wilmington the water could swim a horse clear across. In 1884 the tides came in as far as Anaheim Road in many places, but that land is now all filled in five or six feet (89)."

The Los Angeles Express Notes taken from the paper, February and March 1884 (pp.92-8)

- *February 1st*: Fifteen inches of rain has fallen to date for the season.
- *February 2nd*: the Pacoima, Big and Little Tujunga are discharging immense amounts of water over the San Fernando Valley.
- *February 4th*: On last Friday a man attempted to cross the Arroyo Seco with a fine horse and buggy. The buggy has not been seen, and the horse lies against a clump of willows just north of East Los Angeles.
- *February 5th*: The Santa Ana river [sic.] is on a boom, running clear through to the ocean, and cannot be forded. Another horse has been drowned in Arroyo Seco and people now drive around by five mile house, preferring the adobe road to a ducking in the Arroyo Seco. The San Gabriel is still dangerous to cross owing to the speed of the river and the change of the channel, and also the Arroyo Seco.
- *February 6th*: The New River is flooding Downey City and vicinity. In Las Bolsas many tracts of alfalfa and grain are already under water. It is impossible to understand anything about the symptoms of a local Southern California rain. The present one which commenced on Sunday a week ago at one o'clock A.M. has been one of our best downpours.
- *February 7th*: Thursday. Up to yesterday the rain for the storm by the Signal Service was 9.13 inches. As the rain is still in continuance the absolute total will be mentioned at the close of the present storm, if it ever stops.
- *February 8th*: there has been a fall of 21 inches at Pasadena for the season. There has been no railway communication with Anaheim and Santa Ana for very many days past, with the exception of one day. The Santa Ana trains run as far as Downey City and back on their usual time, about one-third of their distance to Santa Ana.

- *February 12th*: The Santa Ana River is in some places ¾ of a mile wide resembling a foaming lake. There is a larger volume of water now flowing from this river into the sea than for 17 years past.
- *February 15th*: Alameda Street is a veritable river. The greater portion of Sonoratown is practically flooded, especially hat portion embraced by Buena Vista, Virgin, College, and Castelar Streets. Travel on foot is hazardous and in every way disagreeable.
- *February 16th*: Arroyo Seco is utterly impassable for teams at all crossings. The San Gabriel River is running to the sea, the first time since the spring of 1875. The Santa Ana trains are running only to Downey since the present rain.
- *February 18th*: Bridges and culverts are being washed away in every part of the country, and roads are impassable. A south wind Saturday night and yesterday morning blowing toward the mountains, upon which there was a heavy fall of snow and all the way from 20 to 24 inches deep, melted it almost instantaneously, and the Pacoima, the Big and Little Tujunga and Arroyo Seco, all joined at the Los Angeles river at their several junctions, and swelled its proportions to a flood, as stated by old residents, to exceed any flood since 1862-3. 21 years ago when the river deluged Alameda Street at the Arroyo Seco crossing, making the street lower than the bed of the river, as it is at some places at present. The same thing occurred yesterday although the water only washed in on the street between Macey and First Streets. In what is known as Frenchtown, east of Vignes to the river, all house were flooded from two to six feet deep. At 1 o'clock P.M. the river at East Los Angeles bridge was 900 feet wide, 6 to 12 feet deep, and running at a rate of fifteen miles an hour. Shortly after the driftwood from the mountains began to drift down and weakened the bridge so that cars stopped at either end of the bridge, and the passengers crossed the bridge on foot. About an hour or fifty minutes afterwards the Aliso bridge [sic.] was under mined and its supports washed out, the bridge rapidly going to pieces was floating down stream, near to the First Street bridge, where that portion that held together lodged, causing the waters to back and flow westward into the city as described. The East Los Angeles bridge next weakened, and 100 feet of the east end was carried away, both street car and foot bridge. During the evening the bridge across First Street was also broken and more than half carried away and cannot be used. The railway trestle across Los Angeles river [sic.] at the San Felis Rancho, and the one across the river on the Arizona route, are gone. The houses commenced to float off in the flooded regions about one o'clock. The damage will reach over $1,000,000.
- *February 19th*: The Cerritos country and the New River country are all under water. **The New River has changed its channel which it cut in 1867, and is running through two channels at present**. [Where?] The Los Angeles River has made a new channel below

the covered bridge, through the Meinzer place, and down through the willows for over half a mile. Mr. R Nadeau suffered a heavy wash through his 2000 acre vineyard near Florence, and lost many thousands of vines. **There is a grand stream 15 miles in length, composed of Old and New San Gabriel Rivers, and the Los Angeles River after they unite which made a terrible and grand old river to the sea.**

- *Thursday, February 21st*: Since Friday of last week no trains have arrived here except one from Santa Ana, three from Santa Monica and three from San Pedro. The City Council in a body went down to the river to view the damage and see what could be done.
- *March 4th*: at no time since the recent flood have the street cars of Boyle Heights and East Los Angeles line been able to cross the river, the transfer from each side having been made over he bridges. The piles for the rebuilding of these structures were being sunk steadily, but the present rain will probably so weaken them that they will have to be replaced by others. The bridges across New River and Santa Ana river [sic.] on the route to Santa Ana by rail are washed away again to a certain extent, and are so far utterly impassable. the railway between here and San Fernando, which has been dangerous ever since the recent washout, is again utterly impassable, while the Soledad Canon is again gone up. There is no knowing when we will again have communication from the north by rail.
- *March 5th*: The Signal Service reports the present storm to be to date 4.8 inches, and a total of 26.35 inches for the season.
- *March 6th*: the river has accomplished little damage during the recent rain, partly because that much damage has heretofore been accomplished, and because evergreen boughs and other protection had placed in the more exposed and dangerous localities - - - The Hollenbeck tract was unprotected, and badly flooded, a house worth $500 being washed away - - The river is falling slowly and will probably not do any more damage.
- *March 7th*: The present season has dropped more rain than any other time since 1867-8. The railway trestle across the Los Angeles River, both on the northern and southern routes have been dangerous ever since the first flood, especially the latter one. This morning 70 feet of the west end o it was washed out by the flooding river, assisted by driftwood, rendering through travel in any direction impossible for a long time to come. Information reached us today that in addition to the swinging condition of the railroad bridge over the San Gabriel river [sic.], the piles have al departed, and the Santa Ana trestle is in the same condition east of Colton. The rainy season to date is as follows: the first storm of any consequence during the present season was on October 27th dropping 1.37 inches of rain. The second was on December 3rd dropping 1.56 inches of rain. On Jan. 29-31 of the present year, the fourth rain dropped 4.66 inches of

rain, followed by 4.64 inches of rain in the six days following. The fifth rain occurred on February 15-16 and dropped 2.75 inches. The sixth and present rain has dropped 9.74 inches. The rain in February which caused the flood, dropped 9.89 inches of rain, while the present rain dropped 9.74 inches.

- *March 10th*: the river is utterly incontrollable, and there is no telling where it may go without a levee. Formerly it occupied a space between the eastern bluff and the mesa of Sonoratown in 1862-3, and in 1867-8 the soil is nearly all of a quicksand character, and the river may get onto Alameda St., flood the city and reach the sea near Ballona.
- *March 12th*: The Los Angeles river [sic.], the Arroyo Seco and the Santa Ana and the San Gabriel rivers were still impassable yesterday. An estimate of the damage by the recent flood has been placed at $400,000. Notwithstanding the cessation of rain, the damage to the railway appears to be worse than ever, and there is no idea when we will have communication again. The Soledad canon is washed out for the third time and the south end of the San Fernando tunnel is washed out for a second time.
- *March 14th*: The change of the San Gabriel river [sic.] from its old bed to its new channel of 1867-8 this year has washed away a 350 acres of valuable corn land worth $150. per acre, or a total value of $21,000. Luckily its course did not take in or touch the Ranchito corn country.
- From Downey – *March 12, 1884*: We have been greatly discomfited the great part of the time for the last month and a half as all means of travel has [sic.] been cut off from the outside world, with Old river on one side and New river on the east and barbed wire fences of Mr. Thomas Bixby stretching from one river to the other.
- *March 18*: The San Gabriel river [sic.] on this side of Fulton Wells [location?] is now fordable, but is still dangerous on account of quicksand.
- *March 20*: During the forty hours preceding eight o'clock this morning two passenger and three freight trains from the east hauled up to the depot, which, with the wonderful increase of business on the local roads, has made things exceedingly lively where all has been dormant for three weeks.

Mr. Lafayette Saunders (Long Beach): "Back in those days it usually took 24 hours for the flood to travel from Los Angeles to Los Cerritos. In 1884 on one Saturday they received word that a flood was on its way from Los Angeles. Every one made preparations against it (99)."

"Uncle Billy" Clark (Long Beach): "Long Beach or Los Cerritos was a complete island, water being from San Pedro to Compton, Clearwater and eastward to Westminster and southward to the ocean. Up to that time quite a good deal of shipping was carried on Anaheim Landing. There was a settlement there at that time. Vessels came into the harbor and discharged and

took on their cargoes. However, since that time little has been done in the way of shipping. The harbor filled up and has never been opened up again."

"The Santa Ana river [sic.] broke over into Coyote Creek and the flood waters came into Alamitos Bay. In fact, the waters of the Los Angeles, Rio Hondo, San Gabriel, Coyote Creek and Santa Ana rivers were all joined in one vast sheet of water. The country was impassable for several weeks (105)."

"Los Cerritos and surrounding country was a great stock and sheep range. It was necessary to get the sheep out of the low lands for they would lie down and drown. Mr. Clark, with Fred Bixby, Deafy, a vaquero and some others went into the flats east of Long Beach to get these sheep out. Reaching the San Gabriel it was necessary to swim across the stream to the slightly higher ground beyond the water was very swift and dangerous. They went over alone, that is, without horses, but came back on horses, and had just as difficult a time getting back as going over. A potion of lands around Alamitos Bay is part sand and very fine for raising celery. There is a large portion, however, which is alkaline and will not grow very much. This land east of Los Cerritos is known as the Artesian Belt and once had many springs scattered over the land. Now they had disappeared for the wells along the foothills have lowered the water plane until now the water does not flow any more (105-6)."

Mr. Joseph Mesmer: "The floods of 1884 were very great a destructive. This flood swept away every bridge across the river except one, the old covered bridge at Aliso St. A great deal of damage was done to settlers and business in the low lands along the river as all o this was overflowed. Many lives were lost and many houses washed away (109-110)."

"Mr. Mesmer aided many people out of the flooded district, and at Alameda St. he remembers the water was half way up on his thighs, for he was wearing hip rubber boots and was concerned that he did not get in over the tops of them."

"The Los Angeles river [sic.] changed its course this year and washed away several hundred acres of vineyards, orchards, and fields. The valley between Main St. and Boyle Heights was a solid sheet of water. This flood was very destructive but not so much as that of last winter. Conditions make a great deal of difference (110)."

Mr. Eli Graves: "On the 17th of February, 1884, our troubles began. The water came up and was everywhere. My place was completely inundated. Chickens, cows, horses, hogs, and everything loose was on the move. We did not know when the water would get higher to and wash away our fences and buildings. Hay stacks and all crops in the fields were carried out to sea. It was impossible to have gotten away, for we were surrounded by deeper water than was on our place. At one time we thought of going to neighbor's place, which seemed higher than ours, but we soon learned that we as well, or better off then they were."

"The water had immense force, and it did great damage by washing. In the stream great cottonwood trees up to two feet in diameter were twisted and broken as they were caught against the bank by the current."

"The water would get started in a whirl against some obstruction, and scoop out a bug hole, perhaps 100 feet wide and six to eight feet deep in a short time. The water would get started in a whirl against the roots of a tree and it would soon be uprooted. It seemed that some obstruction of that kind was play for the water to uproot (126)."

"Judge Venable had a place just north of mine, which was low and swampy. His land was about a half a mile square. Seemingly of little value at the time, it was set out to willows, cottonwoods, and gum trees. It was not intended exactly as a breakwater, although it was expected that it would help fill up the low places to some extent. However, when the floods did come, it proved to be very much of an obstruction. The floods were turned eastward and in turn completely washed out a man about a mile east of Mr. Graves' place (127)."

"The light soil melts away so easily and rapidly, that the only conceivable channel to me is one of heavy concrete sides and bottom (128)."

Mr. Walter P. Temple (El Monte): "The flood of 1883-4 was the largest of any in his time. In that year the San Gabriel river [sic.] changed its course somewhat in that it cut across the Rio Hondo just below the Whittier narrows."

"The Rio Hondo is only a little drain which empties into the San Gabriel river just above the old part of the Mission bridge, and is only two miles long. It is fed by the seepage of the lowlands between the two San Gabriel rivers [sic.] (212)."

T.W. Watson (Glendale): "He says h came to Glendale in about 1883 with his folks was a small boy about seven years old in the 1883-4 flood, but can remember about the big water and they were living about a mile from the Verdugo canyon [sic.] and he says they could hear the water roar at their place. The Verdugo wash [sic.]was running very nearly down the center of the canyon at that time or about where Canada Boulevard is a at the present time. He says the Verdugo wash [sic.] has filled up considerably at the mouth of the canyon in the past twenty years, filled some five or six feet in the bed of the stream near the Ross packing house in the 1914 flood. In the 1884 flood there was much more water and it spread much worse down toward San Fernando road than in 1914 (240)."

C.C. Mason (Santa Fe Springs): "Says he lived in this section for 38 years and the 1884 food was the largest in his time, and the water got the highest and did more damage than any time in the last 38 years. He says most of the damage was done in the river bed very nearly as far down as Artesia. By river bed he means from the Ten Mile house to New River. Down near Artesia and below that the section of the country was a lake. They had to do considerable work in 1884 about a mile above Los Nietos to keep the New River from going down the Canada Verde, which he thinks was originally the old river bed. Would not undertake to say how long since it was the river bed, but

he signs go to show it was originally a large water course and if you dig in it, you will find river sand (243)."

Ed Ayers (Tropico): "He says he went to Tropico in February, 1884 and has lived there ever since. When they were taking the furniture out of the wagon, it commenced to rain and rained so hard for three days and nights that they could hardly get out of the house. It rained 40 inches by June, and the ground was so well soaked that he planted a crop of corn in the middle of June and it matured without irrigation. On February 20, 1884 it took 20 houses down the Los Angeles river in Los Angeles in one night. It also took out the ditch for the Los Angeles water supply west of the Los Angeles river opposite Tropico, and caused the S.P.R.R. tunnel above San Fernando to cave and washed about two or three miles of track out between Roscoe and San Fernando, ad there were no trains from the north until sometime in March. It took all the bridges in the county out with the exception of one or two (247)."

He says "the Arroyo Seco was running very nearly bank full until June. Says 1884 was the greatest growing year ever knew of. Says he saw crops of barley planted and harvested and then the ground broke and crop of pumpkins planted and a big crop raised without any irrigation. He had apricot trees that made eleven foot growth that season (247-8)."

"The whole lower section of Los Angeles was a lake in 1884. There was no particular damage done in the Glendale or Tropico district in 1884. There was just lots of water but did not do much cutting. The Los Angeles river got much higher in 1884 than in 1914 (248)."

Mr. J.W. Fulton (Pomona): "Says he lived near Pico from about 1880 until 1884 and then came to Pomona. In the 1884 flood he wanted to go to Texas about the first of January and could not get away until the 25th of February on account of the railroads being washed out. The whole country was flooded at that time much worse than the 1914 flood. All the bridges and railroads were washed out; the country was probably not cut as bad as in 1914 but there was more ground flooded and the country was much wetter. You could hardly travel for quite a while. He says the majority of the waters of the San Gabriel canyon went to New river [sic.] up until about five or six years ago and have been gradually going over into Rio Hondo until the Rio Hondo at the present time carries the most of the San Gabriel canyon [sic.] water (262)."

C.G. Bremond (Norwalk): "In 1884 the country was so full of water that the roads got so you could hardly drive on them and if you got off the roads you would mire down. His wife says she got mired crossing the roads in front of their house. And all the bridges were washed out. Says up to 1884 the New river channel was right through Belleflower [sic.] where the school house stands and in 1914 it changed about a mile easterly of and took down Shady Lane or Lover's Lane as the road was called and there is about the official channel of the New channel or the New river [sic.] is now. Says when he first commenced cultivating his place he used to find pieces of pine bark and chunks of wood a foot under the surface of the ground (285)."

W.C. Sproul (Norwalk): "Before 1884 the New River was running through Belleflower [sic.], where the schoolhouse stands,

but in the 1884 flood it changed to the east a short distance and in 1891 it came further east and down what was known as Lover's Lane, and afterwards came a little farther east but dropped back to Lover's Lane Channel and that was about where they established the official channel (348-9)."

Levi Carse (Artesia): "He says he has lived in Artesia for 39 years and has seen a much bigger flood in 1884, but the water never crossed the sand ridge a half mile west of Artesia in 1884 and did in 1914 but on account of the P.E. bridge across the New river [sic.], backed up the water and it ran down the north side of the P.E. tracks and some of the water went to Coyote Creek. In 1884 Jeff Gaines went from First St., a mile and half west of Main St. in Artesia to Compton in a boat. The channel of New river before 1884 was through Belleflower [sic.] right where the schoolhouse sets. Says if the water had gotten much higher at Studebaker the New river [sic.] would have gone right down through Norwalk. He says there are lots of sand ridges all through the valley and there is not one of them that has not had water down it – that is what made it (387)."

Tom Hutchinson (Glendale): "In 1884 the rains came early and gentle and completely soaked the ground and the ground got so soft that a horse would mire down out in the fields, and then it came on hard rains and there was so much water that the whole country was a lake. He was in Downey and his mother sick in Santa Ana, and the last message they got from her before the telegraph line washed out was she was not expected to live, and he said he was going over there and they tried to talk him out of it; said he could not swim; but he said he was going anyway. He started about ten o'clock at night, moonlight, and followed the S.P. track to where it crosses New River; a part of the piling of the bridge of the S.P. was gone but the tiles and rails were still holding when he got there and he crossed them. Says the water was about up to his knees on the bridge in places where the track had sagged, but he got across all right, but the New River had made another channel a little east of the bridge and the water was very swift and looked deep but not very wide. He made a run and jump and caught willows on the other side of the bank and pulled himself up but lost his hat (396)."

"His mother got better and he could get no word back to the folks at Downey and knew they would be worrying about him, so two days later he made the trip back to Downey. The return tip was nearly as bad as coming but he made it through. Says he saw wagons, buggies, and horses stuck all the way along and it was practically a lake for the greater part of the distance (397)."

Henry Wilson (Compton): "He says that before 1884 the San Gabriel river [sic.] where the steel bridges are and what they call the river was not much more than an ordinary creek, or twenty feet wide (423)."

W.H. Hughes (Norwalk): "His place backs up on New River, and was not damaged much in the 1914 flood, but the water was two and one-half feet deep on the place just south of his place. He says there was a great deal more water in New River in 1884 than 1914. He says in the 1884 flood the New River came

near going off down through Santa Fe Springs, and on down through Norwalk, it came near breaking out about three miles above the S.P. bridge across the New River near Studebaker. Says there was some water went off down there in 1884, an in his opinion if nothing is done that is where New River will go some of these times. No water went down that way in 1914."

"He says the bed of the New River is about the place North [sic.] of here ever since he knew the river, will run to one side one time and the other side another time. But below here he says it has moved some to the east. He does not think any of the water from New River went to Hynes in 1884, thinks that water was from the San Gabriel. He says the 1884 flood was the largest since he has been here, but the 1889 flood was larger than the 1914 flood (438)."

T.R. Tierce (Downey): "Says the majority of the water of the 1884 flood went out New River and has done so ever since his recollection, until the last three or four years it has been getting heavier and heavier in San Gabriel (493)."

S.M. Bise (Compton): "He says the channel of the New River was washed out and made much larger in 1884 than it was before that time (502)."

8 FLOOD OF 1886

George Pillsbury: "Mr. Pillsbury came to Los Angeles in 1885. The first flood that he witnessed was one of 1886. Practically all of the bridges were washed out that year. He, with some of the men, went down South Main St. to do some rush work. The streets were boggy and it was with difficulty that they reached there, and even when they did, they could do nothing, as it rained all day. This was on the 13th of January. They returned home and at that time Mr. Pillsbury lived on East Downey."

"Next morning he heard all of the whistles blowing and knew that the river was up. So he hurriedly got a little breakfast and started out for town. There was a horse car system of street railways, and which usually stopped on signal but in this case it did not. It kept going and he was wondering why, when all of a sudden car and all went out of sight. Hurrying down to the bridge he found the street car conductor and his two passengers sitting on top of the car and all floating down stream. The horse was cut loose and was swimming ashore."

"Some man with a team was crossing one of the wagon bridges. He reaches about half way over when the approach on the end in front of him washed out. Before he could turn around or back out, the approach behind him went out also. His predicament was not so dangerous, however, for the central part of the bridge stood (161)."

J.M. Guinn: "The flood of 1884 and 1886 caused considerable damage to the lower portion of the city. The flood of 1884 swept away about fifty houses, and carried away portions of several orange orchards and vineyards. One life was lost, that of a milkman who attempted to cross the Arroyo Seco. The flood of 1886 was very similar to that of 1884; the same portion of the city was flooded – that between Alameda street [sic.]

and the river several houses were washed away, and two lives lost during the flood of 1884 the Santa Ana river [sic.] cut a new channel to the sea. Beginning at a point where the Santiago Creek enters the Santa Ana, the new river passes through the fertile lands east at the old river, leaving a strip between the two rivers, varying in width from one to three miles, and discharging its waters (where it has any to discharge) into the ocean about three miles southeast of the old river. Within a period of seventy years we find that the three principal rivers of our country, have all created new channels for themselves, and have materially changed their courses; the Los Angeles, from westerly to southeasterly; the San Gabriel, cutting a new channel from three to six miles southeast of its old one; and the Santa Ana, drifting in the same direction twice since 1822 (479)."

9 FLOOD OF 1889

Jesus Cruz: "In early days the valley was covered with willows, larch, sycamore, etc. Later only willows in patches, until they were finally cleaned out almost entirely by the settlers (7)."

C.H. Eilers: "Says the S.P.R.R. from the hill near Elftman and Watson was completely washed out in 1889 (8)."

Ed Carson: "The railroad fill from what is now Elftman and Watson, was washed out and the floods poured into Nigger Slough. This was 1889. About 1894 the Slough began drying up rapidly, and fish began to die by the tons. The stench became so bad it became necessary to bury and burn the dead fish. This greatly fertilized the land. By 1896 the Slough was dry and remained so up until the winter of 1913-14 when it again filled (9-10)."

John Mullhern: "He was here during the flood of 1889, and says that the Los Angeles River cut through into the Alamitos Bay side (16)."

From the ***Evening Express***:
"Much damage has been done in about the city. Streets cut up, conduits filled with sand, bridges carried away, railroad tracks covered with dirt, and much other damage done."

"The approaches to the Kuhrts street [sic.] bridge [sic.] over the Los Angeles River were washed away. About half the Santa Fe bridge [sic.] over the Los Angeles River swept away, and dashed them against the Buena Vista street [sic.] bridge[sic.], weakening the piers and badly damaging it. The S.P. pile bridge below Kuhrts street [sic.] bridge [sic.] almost entirely carried away. The 7th & 9th St. bridges so badly damaged as to render them unserviceable."

"The storm was general all over the southern section of the State. No trains on the Santa Fe or S.P. have either arrived or departed except one to Santa Monica."

"Levees in numerous places have washed away."

"The country between this city and the sea is in many places covered by water and many ranchers will lose heavily. The ex-

tensive vegetable gardeners south of the city will lose heavily."

"At Compton the water is very high. The citizens resorted to boats and made their way about town in that way. The country in that vicinity is flooded and it will be weeks before the surface will be dry. On Dec. 24th the S.P. train failed to return. The train reached Compton by noon and returned."

"**Hon. H.T. Gage** says that the new San Gabriel, the old San Gabriel and the Los Angeles rivers [sic.] have formed on body near Downy and are sweeping toward the ocean carrying everything with them. On the Laguna Ranch a lake five miles in width has formed and the water nearly to the top of the hay stacks. The Los Angeles River, two miles below the city, has swerved from its channel and is running down Downey road (18-19)."

Mr. C.H. Thornburg (Newhall): "The flood of 1889 shows what the water deposits on the land. It is foolish to say that it hurts the land to have it overflowed, for that is what made it. In the earlier years, part of the land lying east of Los Alamitos ranch [sic.] was white in spots, when the alkali lay in cakes on the ground. After the flood these places were covered from a few inches to four feet deep with silt. The land would then grow anything (62-62a)."

"This same flood of 1889 flooded the entire country. The Santa Ana river [sic.] came across and united with the San Gabriel. The floods did not move rapidly, that is, there was not much current; still in about 24 hours, the greater portion of the flood had moved away (62a)."

D. Henderson (Compton): "In 1889 when he was living on New River to the east of where he now lives, the floods played a peculiar trick. The land was not particularly much different from any other near there. There were a few low places, little draws left there by some former flood. Early during the night the flood began to come down, but he thought nothing of it. Next morning there was no water in sight but there was a deposit of sand and silt spread all over his place nice and level to a depth of about eighteen inches. The river had moved further west and left the deposit (65-6)."

D.M. Cate: "In 1889 the Los Angeles river [sic.] broke through into Laguna ranch, and its waters were commingled with those of the Rio Hondo and San Gabriel (74)."

Mr. William Crane: "Again in 1889 there heavy floods. The S.P. tracks were washed out very badly. Between Los Angeles and San Pedro the road was out of business for about a week owing to the track being washed out between Dominguez Hill and Wilmington. More damage was done by each succeeding flood for the reason that more improvements have been made after each decade (119)."

Mr. J. Frank Burns: "The flood of 1889 cam on Christmas day when the greatest damage was done. Mr. Burns remembers this for he went down to help out and did not get away for the three days and nights. This flood carried out bridges and washed away the railroads and immense damage to the whole country. The Los Angeles river [sic.] changed to the eastward below the city limits, broke into Laguna ranch and joined with

the San Gabriel river [sic.]. The whole country was covered with water (152)."

Mr. George Pillsbury: "In 1889 there was another big flood. It did great damage to the bridges and railroads, to vineyards and farms in the valley. The Los Angeles river [sic.] changed its course further eastward through the Laguna ranch owned by Mrs. de Baker. She sued the Santa Fe [Railway] for damages, claiming that their bridge caused the river to change and wrought damage to her property. She lost the suit, however (161-2)."

"This flood covered considerable territory, but the water did not get as deep as some of the older floods did. Down around Compton there was considerable water and men were paddling about in boats but not everywhere they cared to go (162)."

Mr. Thomas Gregory (Long Beach): "The flood of 1889 was a great deal larger than that of last winter [1914], and yet the damage was not so widespread as the last flood. The water spread over the country more evenly and did not cut the land as it now is. There was water from Clearwater to Compton. In Compton the people were paddling around the country in boats, while in Belleflower [sic.] and Summerset there was a vast amount of water. The main channel of the river passed right through Belleflower [sic.], but there is nothing to indicate it today, except the sand streak (170)."

"These rivers, the Los Angeles, and the San Gabriel have been all over the valley. It is a new river with them every time a big flood comes. The San Gabriel river [sic.] shifts from one side of the valley to the other. Wherever the flood waters go they carry sand and silt, and as the grade of the river changes, the waters drop their deposits as the current loses its velocity. The velocity, just the same, is no small matter, as around Belleflower [sic.] the floods brought down logs, trees, etc. and it would have kept anyone moving pretty lively to have kept up with them (170-1)."

"Wherever the land was clear, and there was little or no obstruction, the water traveled along smoothly; but wherever there was alfalfa, a stubble field, or anything of that nature it would catch a great deal of silt. Even plowed land would catch more silt than smooth land. A stump would give the water a foothold, and the water would begin to whirl and dig, and the first thing that anyone knew there was a great hole there, and from this the water would cut back and make a channel. Wherever there seemed to be resistance to the water, the water would concentrate all of its energies (171)."

T.W. Watson (Glendale): "In 1889 there was another large flood and the people had to build a dam or bulkhead at he intersection of Glendale Ave. and Verdugo road [sic.] to keep the water from going down Glendale Ave. Some of the water did go down Glendale Ave (240)."

J.T. Wilson (San Fernando): "In 1889 was the next most severe flood [as compared to the 1884], but in the San Fernando Valley it did not do as much damage as the 1884 flood, but in

other sections it did more damage. In Soledad Canyon it swept it clear and took the railroad out. It flooded the lower section of San Fernando Valley, but there was not the same amount of damage in 1884 (300)."

James Hay (Norwalk): "In the 1899 flood New River very nearly took down [the] slough that heads about where the P.E. [Pacific Electric Railway] to Whittier crosses New River: the chinamen gardeners by working, kept it from going out to speak of, but some did go out. If it had broke out there it would have gone down to Coyote Creek. He has seen the Coyote Creek a mile wide, and the waters of Coyote Creek and Santa Ana River together (324)."

H.C. Hubbard (San Fernando): "In 1889 he was a supervisor and had been in town and he started to San Fernando on the S.P.R.R. and they got as far as Roscoe, and then the water was a solid sheet from Roscoe to Little Tujunga bridge and the tracks of the S.P. were washed out from Roscoe to very near Pacoima – a stretch of two or three miles. They could not across and had to go back to town. He says there was higher water for a short time and it rained about as hard as he ever saw it rain in 1889, but the 1884 flood lasted much longer and there was probably more country covered with water. The Van Nuys section was all under water and up about where Marion is was a sheet of water and the section of country over the other side of the S.P. coast line was more or less under water in 1884 and 1889. The 1884 and 1889 floods were both much larger in the lower part of the country than the 1914 flood. Did not do as much damage as there was not as much to damage as at present. One acre at the present time is worth what five acres were at that time (354)."

"The S.P. built a dam or dyke from little Tujunga to point of hills when they built their road [this line opened in 1871, so most likely sometime in 1869-70], to throw the the little and big Tujunga together so as to use on bridge and protect their right [of] way. The Little Tujunga or where the dyke was built from was about where the bride across the Tujunga Wash nearest to San Fernando is at the present time. He thinks the opening they left was about 300 ft. wide. The dyke they built cost about $150,000, and was all about washed out in 1884. Parts of it there yet (354-5)."

F. Snodgrass (Compton): "He was out to the [maybe "his"?] ranch right after the flood of 1889, and says he remembers that one very well – says the water was from the Los Angeles River and spread out all over the country from the S.P. tracks over west as far as Green Meadow country, and on over to slough west of Compton, all over Compton and down San Gabriel River, and does not know how far east of San Gabriel, but has been told by others that down below Clearwater there was a sheet of water between New River and San Gabriel. Their place was all flooded in 1889, and claims filled from one to two feet with sediment. He says they had alfalfa in a good portion of the ranch and it was all covered and his father just went ahead and sowed on top, after it dried up a little, and he said they have the finest stand they have ever had. The 1889 flood did no washing and cutting like the 1914 flood, and did not seem to carry the same amount of coarse sand (364)."

J.A. Montgomery (Rivera): "Says he has been in this section for forty-six years and thinks there was more water in San Gabriel river [sic.] in 1889-90 than in 1914 and in 1891-2 there were some sections of New River flooded that were not flooded in 1914."

"New River was made the year before he came to the country, and the whole country had been overflowed. Showed it from driftwood and slime on the ground. Says it showed very plainly that water had been there (383)."

"He says the country below El Monte down near to Old Mission settlement was formerly a swamp. Some three miles square, maybe more in earlier times, but anyway that much after he came to the country, and he says that was what used to make Rivera such a good country. The water would come down gradually underground and they would not have to irrigate after September. And he says in later years since the drainage of that section it has made conditions much different. And if they go to work and confine the rivers and straighten them and run the water off with a rush it will it will continue to make matters worse, and probably benefit a few and do an immense amount of damage to the water supply of the country and lower the water level, which would be a serious detriment to the walnut orchards of the country. Says if it should lower the water level two feet it would be a serious matter for the walnut growers. In his opinion of they throw all the rivers into one channel and confine it from the mouth of the San Gabriel Canyon to the sea they will do the country millions of dollars of damage by lowering the surface water level (384)."

M.J. McGaugh (Norwalk): "Says the New River changed its course in 1889,commenced about two miles north of Belle-flower [sic.] and went east from one-half to one mile. Says the water caught them in 1889 and they had to get out of the house and go to a neighbor's house which was on a sand ridge and not under water, and it was two weeks before they could get out to Norwalk. The water was from two to four feet deep all over his property (434)."

Sylvester Rogers: "The neighborhood of Compton was frequently overflowed by waters of the Los Angeles River. I consider the deposits left by the overflows increase the value of the land. The overflows raised my land about two feet, and the effects have been about the same upon the adjoining land. Every farm there has benefited by the floods."

"Compton is nearly south from the break. Previous to 1889 the Los Angeles River flowed all over the country from San Gabriel river [sic.] to Compton Creek. When I first moved to my place the Los Angeles river [sic.] ran right through my farm. I moved there about twenty-five years ago. It filled up that year above my place and has never flowed in there since. After that it mostly ran mostly east of my place – about half a mile – or ran there every flood until the flood of two years ago (543)."

10 FLOOD OF 1891-1892

H.J Stevenson: "The flood of 1891was the most destructive in the Arroyo Seco. Before that time there was only a small wash, in fact, he had not noticed any big washes anywhere before

that time. Then the floods carried away great bodies of valuable land (85)."

Mr. S.V.Landt: "In all his experience the flood of 1891 was the worst. There was an old man living on his place in Arroyo Seco, down on the lower branch just above the Buena Vista St. bridge [sic.]. It had been raining for about ten days steady, and the Arroyo was up and things looked very bad, and for this reason he had been looking around, then started home. He told the old man that he though it would be a good idea for him to move his stuff all up on the mesa. The old fellow did not think so. However, it was getting dark and the old man offered to accompany Mr. Landt to the bridge with his lantern. And too, the old fellow had placed a stick at the edge of the water and said he could tell if the river was rising. In trying to see the stick, the old man almost stepped off the bank into the river (85-6)."

"The water had risen and carried away his stake as marker and also he came very near stepping into the stream – it had risen so much. So Mr. Landt told the old gentleman that he would go up on the hill and get some young men to help him move his things to higher ground. This he did and they then proceeded to the bridge. When they reached it the water was almost up to the bottom of the girders. So he told the old man he had best go back and get his goods all out. Mr. Landt crossed the bridge and about this time a big tree came down and was dragged beneath the bridge and it made the bridge tremble. In about ten minutes the bridge was carried away. Large trees, houses, and all kinds of wreckage began to come down. The water washed out one approach and made the opening much wider than before. The bridge was about 75 foot span. The storm did great damage to each side of the Arroyo Seco. A part of his land was completely washed away; part of a fine sycamore grove and some valuable land (86)."

Tom Hutchinson (Glendale): "He says there was more water in Downey in 1891 for a short time than any time he ever saw, but that was on account of breaking out of Rio Hondo near where Rio Hondo is on the P.E. line to Whittier or at Bangle place. But it did not last but a short while and they turned it back and fixed it, but while it lasted was about three feet deep at the S.P station (397)."

Mr. T.R. Tierce (Downey): "In 1891 the water broke out of Rio Hondo a little below Rio Hondo Station on the P.E. line to Whittier, at Bangle place, and came down through Downey, and over by the S.P. Depot the water was about three feet deep, and went on down by Downey Cemetery and on down by what used to be known as Newton's Crossing, where they forded the New River."

"The New River has been working to the east ever since he could remember, and he thinks since his time it has gone abut one and one-half mile east. Says he caught a carp a foot long in the wagon road about two miles south of Downey. When he first remembers New River it was running about where Belleflower [sic.] is now. Says they don't say anything about it but the water came very near coming though Downey in the 1914 flood, in about the same place it came from in 1891; says he was told it broke through just a little, but the people got it stopped and said nothing about it (493)."

11 FLOOD OF 1914

Mr. P.M. Bangle (Long Beach): "In the 1914 flood he says he was at the station at Bangle at the time of the highest water and the water was running about six inches over the top of the rails; could not see the rails at all by looking up toward Dominguez pump station (372)."

Mr. Joseph Smith (Downey): "Says he has seen waves in the Rio Hondo 7 feet high anyway and they would act a good deal as the ocean waves do, they would break and you could see the sand dropping through them, especially if it were between you and the sun. And if there was a stick or piece of brush or any kind of obstacle lodged there would be a bar formed in a very few minutes. Says there were hundreds of acres of good ground covered with this sand the river was carrying in the 1914 flood (487)."

California State University
Northridge

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