

F-COTW *Populus deltoides* Temporarily Flooded Forest Alliance
Eastern Cottonwood Temporarily Flooded Forest Alliance

Associations and Alliances

Populus deltoides Temporarily Flooded Forest Alliance

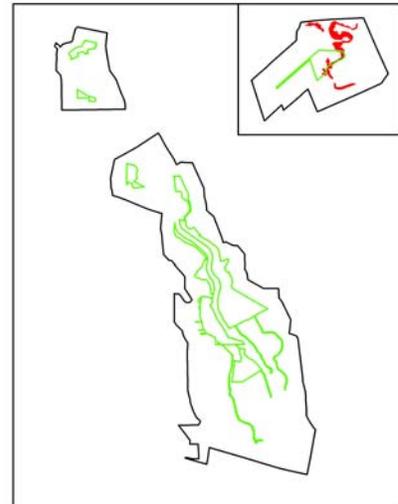
Common Species

- Populus deltoides*
- Acer negundo*
- Carya illinoensis*
- Celtis laevigata*
- Ulmus americana*
- Ulmus crassifolia*
- Rubus riograndis*
- Toxicodendron radicans*
- Smilax bona-nox*
- Ambrosia trifida*
- Chasmanthium latifolium*
- Elymus virginicus*

Description

This type was found exclusively in the Rancho unit of SAAN, although scattered cottonwood trees are likely present around the Missions as well. This type occurred on the primary terraces and levees along the main natural channel of the San Antonio River. Cottonwood establishment in these areas is likely a result of flooding events, which are probably infrequent at SAAN due to the impoundments on the river. Where it occurs, *Populus deltoides* was the dominant over an understory containing a mix of other common deciduous species including *Acer negundo*, *Carya illinoensis*, *Celtis laevigata*, *Ulmus americana*, and *Ulmus crassifolia*. The shrub layer is very sparse but the herbaceous layer is relatively thick consisting of vines (*Rubus riograndis*, *Smilax bona-nox*, and *Toxicodendron radicans*) and shade tolerant grasses (*Chasmanthium latifolium* and *Elymus virginicus*). The overlap in common species between this type and the other deciduous woodland and forest map classes led to some confusion in the mapping. On the 2003 imagery this type appeared gray with pink speckles and had a puffy, mottled texture.

Range and Distribution



Representative Ground Photo



Photo Signature Example

A.290 *Populus deltoides* Temporarily Flooded Forest Alliance

Translated Name: Eastern Cottonwood Temporarily Flooded Forest Alliance

Common Name: Eastern Cottonwood Temporarily Flooded Forest Alliance

ENVIRONMENTAL DESCRIPTION

The environmental factors that influence the composition and structure of this community are: climate, topography, soils, and chance historical events. This community occurs on the primary terraces and natural levees along the main natural channel of the San Antonio River. The community occurs on alluvial sands and sandy loams that are well drained but near the water table. Composition of tree species at any given site is probably largely dependent on chance establishment, especially following damaging floods. Flooding of major proportions does not occur as it once did due to impoundments along the river.

VEGETATION DESCRIPTION

Populus deltoides dominates over a mix of other riparian species in both density and height. Thus, the canopy extends to nearly 30 m high with a cover of 40 to 70 percent cover. The subcanopy cover almost equals or(?) exceeds that of the canopy. The species composing the subdominant mix in the canopy, as well as subcanopy include *Acer negundo*, *Carya illinoensis*, *Celtis laevigata*, *Ulmus americana*, and *Ulmus crassifolia*. The shrub layer is very sparse. However, the ground layer may cover up to 40% of the surface and consists mostly of vines (especially *Rubus riograndis*, *Smilax bona-nox*, and *Toxicodendron radicans*) and shade-tolerant grasses (*Chasmanthium latifolium*, *Elymus virginicus*).

FLORISTIC COMPOSITION

<u>Species Name</u>	<u>Stratum</u>	<u>Lifeform</u>
<i>Populus deltoides</i>	Tree canopy	Broad-leaved deciduous tree
<i>Acer negundo</i>	Tree (canopy & subcanopy)	Broad-leaved deciduous tree
<i>Carya illinoensis</i>	Tree (canopy & subcanopy)	Broad-leaved deciduous tree
<i>Celtis laevigata</i>	Tree (canopy & subcanopy)	Broad-leaved deciduous tree
<i>Ulmus americana</i>	Tree (canopy & subcanopy)	Broad-leaved deciduous tree
<i>Ulmus crassifolia</i>	Tree (canopy & subcanopy)	Broad-leaved deciduous tree
<i>Rubus riograndis</i>	Herb (field)	Other shrub
<i>Toxicodendron radicans</i>	Herb (field)	Other shrub
<i>Smilax bona-nox</i>	Herb (field)	Vine/liana
<i>Ambrosia trifida</i>	Herb (field)	Forb
<i>Chasmanthium latifolium</i>	Herb (field)	Forb
<i>Elymus virginicus</i>	Herb (field)	Forb

OTHER NOTEWORTHY SPECIES

<u>Species Name</u>	<u>GRank</u>	<u>Animal</u>	<u>Note (specify Rare (geog area), Invasive, Animal, or Other)</u>
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CLASSIFICATION & OTHER COMMENTS

Classification Comments:

Other Comments:

ELEMENT DISTRIBUTION

This class occurs only at the Rancho Unit along the banks and primary terraces of the San Antonio River.

ELEMENT SOURCES

Inventory Notes:

Plots: SAAN.32, SAAN.33

Description Author(s): R. Sanders