

Do you have color in your water?

Tannin Removal

Tannins are a byproduct of decayed vegetation. The decayed vegetation produces humic acid in shallow, swampy water. Iron can complex with organic compounds in humic acid to form tannin. The iron in the complex gives tannin water its characteristic yellowish to tea-colored color. Cedar swamps, Cyprus swamps, and cattail swamps all harbor tannins. Tannin water stains laundry and may cause undesirable odor.

Because the organic surrounds the iron particle in the tannin complex, tannins cannot be removed with cation exchange media. The organics maintain a negative charge, requiring removal with anion exchange media. The ion exchange chemistry for tannin removal is not nearly as predictable as that for removing hardness and iron with cation resin.

Maximum Contaminant Level: Not covered under primary drinking water standards. “Color” from all sources is mentioned in the secondary standards; over “15 color units” is considered undesirable. Any visible tannin would warrant treatment.