

STOPR+2 COMMENTS 7/14/16

COLOR CODING: BLACK = STOPR+2 TEXT NOT APPEARING IN DEP TABLE;

RED TEXT = STOPR+2 TEXT APPEARING IN DEP TABLE; GREEN TEXT= COI

1 "Harmful to the water resources" means:

2 1) adverse water quality impacts to a water source resulting from a withdrawal  
3 or diversion;

4 (a) "Adverse water quality impacts" to a water source means a withdrawal  
5 that causes significant degradation of surface or groundwater quality through  
6 the induced movement of pollutants into a water source that is not polluted.

7 (b) "Significant degradation of surface or groundwater quality" means: (a)  
8 the induced movement of pollutants into a water source that is not polluted,  
9 which causes a violation of water quality standards in areas that would have  
10 previously been unaffected; or (b) the alteration of the rate or direction of the  
11 movement of pollutants, as evidenced by the predicted influence the water  
12 withdrawals would have on inducing movement of the pollutants or as  
13 indicated by a sustained increase in background levels in pollutant  
14 concentrations.

15  
16 2) adverse water quality impacts from a dewatering discharge to receiving  
17 waters;

18 (a) "Adverse water quality impact from a dewatering discharge to  
19 receiving waters" means a withdrawal that causes harmful water quality  
20 impacts. Applicants who have obtained and are in compliance with a  
21 National Pollution Discharge Elimination System (NPDES) Permit or  
22 Environmental Resource Permit authorizing a dewatering discharge shall be  
23 considered not to cause an adverse water quality impact from a dewatering  
24 discharge to receiving waters.

25  
26 3) adverse impacts from saline water intrusion or upconing;

27 (a) For purposes of this definition "saline water" means water that  
28 generally is considered unsuitable for human consumption, industrial use or  
29 for irrigation because of the high content of dissolved solids, commonly  
30 expressed in milligrams per liter (mg/L) of total dissolved solids with  
31 moderately saline as 3,000-10,000 mg/L; very saline as 10,000-35,000 mg/L  
32 and brine as more than 35,000 mg/L.

33  
34 (b) For purposes of this definition "fresh water" means water that contains  
35 less than 3,000 mg/L of total dissolved solids and is generally considered  
36 suitable for human consumption, industrial use or for irrigation. Water  
37 having a total dissolved solids concentration between 1,000 mg/L and 3,000  
38 mg/L can be termed slightly saline fresh water; and generally, water having a  
39 TDS concentration greater than 500 mg/L total dissolved solids is considered  
40 unsuitable for human consumption and many industrial uses.

Commented [EPD1]: This definition is necessary to provide context as to what "adverse water quality impacts to a water source" means. The definition is different among the three WMDs. This definition is based on SWFWMD AH 3.5. SJRWMD and SWFWMD use similar language but use the term "harmful" rather than "adverse."

Commented [EPD2]: This concept comes from SJRWMD AH 3.7(b). The other WMDs do not have a corresponding rule provision.

Commented [EPD3]: Saline water needs to be defined in order to determine what constitutes adverse impacts from saline water intrusion or upconing. None of the 3 WMDs have a common definition of saline water. In order to develop a uniform rule, a common definition is required. This suggested definition is based on SWFWMD AH 1.1 (kk), which is more applicable in the CFWI than the definition of saline water contained in SFWMD AH 1.1. SJRWMD does not have a definition of saline water in its rules.

Commented [EPD4]: Freshwater also needs to be identified in order to determine what is considered saline water intrusion. This definition is based on SWFWMD AH 1.1(p), which is more applicable to areas in the CFWI than the definition of freshwater contained in SFWMD AH 1.1, which is more applicable to coastal areas because it only refers to chloride concentrations as opposed to total dissolved solids, which is used in the SWFWMD definition. SJRWMD does not have a definition of freshwater.

42 (c) For purposes of this definition “upconing” means the process by which  
43 saline water underlying a fresh water zone in the same or different aquifers,  
44 rises into the fresh water zone as a result of pressure variations caused by  
45 withdrawals.

46  
47 d) For purposes of this definition “saline water interface” means any  
48 plane or surface within the transition zone between fresh water and saline  
49 water that is defined by a specific concentration of total dissolved solids.

50  
51 (e) For purposes of this definition “saline water intrusion” means the  
52 movement of more saline water laterally inland into a fresh water aquifer  
53 from coastal areas; the movement of more saline water vertically upward into  
54 a fresh water aquifer; any other movement of saline surface water into a  
55 fresh water aquifer; or any movement of saline surface water or ground water  
56 into a fresh water surface water body.

57  
58 (f) “Adverse impact from saline water intrusion” means an impact caused  
59 by withdrawals of fresh water that results in the further movement of a  
60 saline water interface to a greater distance inland toward a freshwater  
61 source except as a consequence of: seasonal fluctuations, climatic conditions,  
62 such as a drought; or operation of the Central and Southern Flood Control  
63 Project, secondary canals or stormwater systems that adversely affects or is  
64 predicted to adversely affect other existing legal uses of water, the applicant  
65 or the public health, safety and general welfare.

66  
67 (g) “Adverse impact from saline water upconing” means an impact caused  
68 by withdrawals of fresh water that result in the sustained upward movement  
69 of saline water that adversely affects or is predicted to adversely affect other  
70 existing legal uses of water, the applicant or the public health, safety and  
71 general welfare. Sustained upward movement of saline water is one that  
72 persists when the withdrawals have ceased.

73  
74 (h) The withdrawal and use of non-seawater, saline water for consumptive  
75 use shall not be defined as an adverse impact from saline water  
76 intrusion or upconing, provided the applicant demonstrates the  
77 following:

78 a). The quality of the proposed source will be adequate for the  
79 intended use for the duration of the permit;

80 b). The proposed use will not cause harm to a presently existing  
81 legal use of water; and

82 c). The proposed use will not cause harm to fresh water sources  
83 that come into contact with saline water as a result of the  
84 proposed use. Under the following conditions, fresh water

**Commented [EPD5]:** This word, omitted from the DEP Table is found in SFWMD AH 3.4.A and is intended to protect the water resource from saline water intrusion from the withdrawal of fresh water, but not discourage the withdrawal of brackish water as an alternative water supply

**Commented [EPD6]:** This phrase, revised in the DEP Table, is based on SFWMD AH 3.4.A and is intended to recognize that the saline water interface may move as a result of drought, operation of the Central and Southern Flood Control Project, secondary canals and stormwater systems without implicating adverse saline water intrusion caused by the withdrawal of freshwater from the aquifer.

**Commented [EPD7]:** This phrase, omitted in the DEP Table, is based on SFWMD AH 3.4.A and is intended to recognize that saline water intrusion in and of itself is not considered an adverse impact unless it adversely affects existing legal uses of water, the applicant' use of water or public health, safety and general welfare.

**Commented [EPD8]:** See prior comment.

85 sources that come into contact with saline water as a result of  
86 the proposed use will not be considered harmful to the receiving  
87 fresh water body:

88 i. The affected receiving water body is non-productive or  
89 low-yielding in nature (hydraulic conductivity of less than  
90 10 feet per day);

91 ii. The saline source water will discharge to tide after use;

92 iii. The saline source water will be diluted to fresh water  
93 concentration prior to use; or

94 iv. The impacts of saline water are compatible with  
95 surrounding land use.

96 Nothing herein shall be intended to grant the District jurisdiction to regulate  
97 disposal of concentrate resulting from desalination of saline water.

98  
99 4) hydrologic alteration that results in adverse impacts to the natural system,  
100 including wetlands or other surface waters.

101  
102 [Subdefinitions for g)4. will be proposed in the next round, according to DEP's  
103 schedule.]

**Commented [EPD9]:** This is patterned on SFWMD AH 3.4.1, which is intended to address the unique circumstances involved with the withdrawal of saline water as an alternative water supply. Such use will likely cause a movement of the saline water interface or upconing, but such impacts should not be considered adverse. The other WMDs do not have a specific rule governing the deliberate withdrawal of saline water for consumptive use purposes.