

Water Quality Goals Table Structure and Data Dictionary

A. Fields in the wq_goals table:

| <u>Field Name</u> | <u>Function</u> |
|-------------------|---|
| Name1 | Primary chemical (parameter) name |
| Name2 | First synonym for chemical (parameter) |
| Name3 | Second synonym for chemical (parameter) |
| Name4 | Third synonym for chemical (parameter) |
| Sort_Name | Primary chemical (parameter) name with spaces, commas and dashes removed and numbers and prefixes moved to the end of the name |
| CAS_Number | Chemical Abstracts Service Registry Number for parameter |
| Organic_Inorganic | Whether the chemical (parameter) is an organic chemical or an inorganic chemical |
| Name_Search | Calculation field that combines the fields Name1, Name2, Name3, Name4 and Sort_Name for use in searching the FileMaker Pro table by chemical (parameter) name (not exported to SQL Server) |
| Limit_Search | Calculation field that combines all of the fields <i>Limit_Name</i> and <i>Lim_i_Name_2</i> (see below) for use in searching the FileMaker Pro table by water quality limits (not exported to SQL Server) |
| Unit_Note_Search | Calculation field that combines all of the fields <i>Limit_Name_unit</i> and <i>Limit_Name_note</i> (see below) for use in searching the FileMaker Pro table by water quality limit (not exported to SQL Server) |
| Footnote_Search | Calculation field that combines all of the fields <i>Limit_Name_fn1</i> and <i>Limit_Name_fn2</i> (see below) for use in searching the FileMaker Pro table by footnote number (not exported to SQL Server) |
| Footnotes | Calculation field that combines all of the fields <i>Limit_Name_fn1</i> and <i>Limit_Name_fn2</i> (see below), each in parentheses, for use in FileMaker Pro (not exported to SQL Server) |
| Update | Last date that information on this parameter was updated (originally set to 8/5/2004) |

For each type of limit (see list of Limit Names below), the following fields are used:

| <u>Field Name</u> | <u>Function</u> |
|------------------------|--|
| <i>Limit_Name</i> | Water quality limit |
| <i>Lim_i_Name_2</i> | Draft or alternate water quality limit (multiple entries separated by semicolons “;”) |
| <i>Limit_Name_unit</i> | Units (default = ug/L; if blank, assume ug/L) |
| <i>Limit_Name_note</i> | Links to Excel spreadsheets of variable limits |
| <i>Limit_Name_fn1</i> | First footnote number |
| <i>Limit_Name_fn2</i> | Second footnote number (multiple entries separated by semicolons “;” – <i>does not work with current intranet interface</i>) |
| <i>Limit_Name_all</i> | Calculation field that concatenates the above fields and is used for export to Excel (not exported to SQL Server) |
| <i>Limit_Name_date</i> | Adoption date for limit in <i>Limit_Name</i> field |
| <i>Limit_Name_Obj</i> | Narrative water quality objective for which the limit would be an appropriate translator |
| <i>Limit_Name_WB</i> | Type of water body for which the limit would be an appropriate translator of the narrative water quality objective listed in the <i>Limit_Name_Obj</i> field |
| <i>Limit_Name_calc</i> | Limit interpretation for comparison with measured values (default = max) (not exported to SQL Server) |

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| <u>Limit Name</u> | <u>Type of Limit</u> |
|--------------------------|---|
| CA_Prim_MCL | California Primary Maximum Contaminant Level |
| CA_Sec_MCL | California Secondary Maximum Contaminant Level |
| USEPA_Prim_MCL | USEPA Primary Maximum Contaminant Level |
| USEPA_Sec_MCL | USEPA Secondary Maximum Contaminant Level |
| USEPA_MCL_Goal | USEPA Maximum Contaminant Level Goal |
| CA_PHG | California Public Health Goal |
| CA_Action_Level | California State Notification (Action) Level |
| USEPA_IRIS_RfD | USEPA Integrated Risk Information System, Reference Dose |
| USEPA_HA_NonCancer | USEPA Health Advisory, effects other than cancer |
| NAS_HA_NonCancer | National Academy of Sciences Health Advisory, effects other than cancer |
| CalEPA_Cancer_Potency | CalEPA Toxicity Criteria Database, Cancer Potency Factor |
| USEPA_IRIS_Cancer | USEPA Integrated Risk Information System, Cancer Risk Level |
| USEPA_HA_Cancer | USEPA Health Advisory, Cancer Risk Level |
| NAS_Cancer | National Academy of Sciences Health Advisory, Cancer Risk Level |
| Prop65_Cancer | Proposition 65 Regulatory Level, based on cancer risk |
| Prop65_Repro | Proposition 65 Regulatory Level, based on reproductive toxicity |
| TO_Threshold | Taste or Odor Threshold, other than National Recommended Ambient Water Quality Criteria |
| Ag_Goals | Agricultural Use Protective Limit |
| CA_Inland_Health_DW | California (or National) Toxics Rule Criterion to protect human health for waters designated sources of drinking water |
| CA_Inland_Health_Other | California (or National) Toxics Rule Criterion to protect human health for waters not designated sources of drinking water |
| CA_Inland_4Day | California (or National) Toxics Rule Criterion to protect freshwater aquatic life, Criteria Continuous Concentration, 4-day average |
| CA_Inland_24Hr | California (or National) Toxics Rule Criterion to protect freshwater aquatic life, 24-hour average |
| CA_Inland_1Hr | California (or National) Toxics Rule Criterion to protect freshwater aquatic life, Criteria Maximum Concentration , 1-hour average |
| CA_Inland_Max | California (or National) Toxics Rule Criterion to protect freshwater aquatic life, instantaneous maximum |
| CA_BayEst_Health | California (or National) Toxics Rule Criterion to protect human health for waters not designated sources of drinking water |
| CA_BayEst_4Day | California (or National) Toxics Rule Criterion to protect saltwater aquatic life, Criteria Continuous Concentration, 4-day average |
| CA_BayEst_24Hr | California (or National) Toxics Rule Criterion to protect saltwater aquatic life, 24-hour average |
| CA_BayEst_1Hr | California (or National) Toxics Rule Criterion to protect saltwater aquatic life, Criteria Maximum Concentration, 1-hour average |
| CA_BayEst_Max | California (or National) Toxics Rule Criterion to protect saltwater aquatic life, instantaneous maximum |
| CA_Ocean_Health | California Ocean Plan water quality objective to protect human health |
| CA_Ocean_6Mo | California Ocean Plan water quality objective to protect marine aquatic life, 6-month median |
| CA_Ocean_30Day | California Ocean Plan water quality objective to protect marine aquatic life, 30-day average |

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| | |
|-------------------------|--|
| CA_Ocean_7Day | California Ocean Plan water quality objective to protect marine aquatic life, 7-day average |
| CA_Ocean_DailyMax | California Ocean Plan water quality objective to protect marine aquatic life, daily maximum |
| CA_Ocean_InstMax | California Ocean Plan water quality objective to protect marine aquatic life, instantaneous maximum |
| NAWQC_Health_WF | National Recommended Ambient Water Quality Criteria to protect human health from consumption of water and aquatic organisms, effects other than cancer |
| NAWQC_Health_F | National Recommended Ambient Water Quality Criteria to protect human health from consumption of aquatic organisms only, effects other than cancer |
| NAWQC_Cancer_WF | National Recommended Ambient Water Quality Criteria to protect human health from consumption of water and aquatic organisms, cancer risk level |
| NAWQC_Cancer_F | National Recommended Ambient Water Quality Criteria to protect human health from consumption of aquatic organisms only, cancer risk level |
| NAWQC_TO | National Recommended Ambient Water Quality Criteria for organoleptic effects |
| NAWQC_Fresh_4Day | National Recommended Ambient Water Quality Criteria to protect freshwater aquatic life, Criteria Continuous Concentration, 4-day average |
| NAWQC_Fresh_24Hr | National Recommended Ambient Water Quality Criteria to protect freshwater aquatic life, 24-hour average |
| NAWQC_Fresh_1Hr | National Recommended Ambient Water Quality Criteria to protect freshwater aquatic life, Criteria Maximum Concentration, 1-hour average |
| NAWQC_Fresh_Max | National Recommended Ambient Water Quality Criteria to protect freshwater aquatic life, instantaneous maximum |
| NAWQC_Fresh_AcuteInfo | National Recommended Ambient Water Quality Criteria, freshwater aquatic life acute toxicity information |
| NAWQC_Fresh_ChronicInfo | National Recommended Ambient Water Quality Criteria, freshwater aquatic life chronic toxicity information |
| NAWQC_Fresh_OtherInfo | National Recommended Ambient Water Quality Criteria, freshwater aquatic life other toxicity information |
| NAWQC_Salt_4Day | National Recommended Ambient Water Quality Criteria to protect saltwater aquatic life, Criteria Continuous Concentration, 4-day average |
| NAWQC_Salt_24Hr | National Recommended Ambient Water Quality Criteria to protect saltwater aquatic life, 24-hour average |
| NAWQC_Salt_1Hr | National Recommended Ambient Water Quality Criteria to protect saltwater aquatic life, Criteria Maximum Concentration, 1-hour average |
| NAWQC_Salt_Max | National Recommended Ambient Water Quality Criteria to protect saltwater aquatic life, instantaneous maximum |
| NAWQC_Salt_AcuteInfo | National Recommended Ambient Water Quality Criteria, saltwater aquatic life acute toxicity information |
| NAWQC_Salt_ChronicInfo | National Recommended Ambient Water Quality Criteria, saltwater aquatic life chronic toxicity information |
| NAWQC_Salt_OtherInfo | National Recommended Ambient Water Quality Criteria, saltwater aquatic life other toxicity information |

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| | |
|------------|--|
| Fish_OEHHA | California OEHHA Screening Values for Fish Contaminants |
| Fish_EPA | USEPA Screening Values or Criteria for Fish Consumption |
| Fish_FDA | US Food & Drug Administration Action Levels for Freshwater & Marine Fish Consumption |
| Fish_NAS | National Academy of Sciences Recommended Guidelines for Freshwater Fish Consumption |

B. Values of the *Limit_Name_note* fields in the *wq_goals* table:

see page X Identifies an Excel spreadsheet (with the name "X.xls") of limits that vary with other parameter(s), such as pH, temperature, or hardness.

C. Values of the *Limit_Name_Obj* fields in the *wq_goals* table:

| | |
|----|---|
| CA | First limit or range is recommended to implement promulgated Criteria to protect Aquatic life. |
| CH | First limit or range is recommended to implement promulgated Criteria to protect Human health. |
| CC | First limit or range is recommended to implement the Chemical Constituents objective. |
| CT | First limit or range is recommended to implement the Chemical Constituents and the Tastes & Odors objectives. |
| TA | First limit or range is recommended to implement the Toxicity objective to protect Aquatic life. |
| TH | First limit or range is recommended to implement the Toxicity objective to protect Human health. |
| TO | First limit or range is recommended to implement the Tastes and Odors objectives. |

D. Values of the *Limit_Name_WB* fields in the *wq_goals* table:

| | |
|-------|--|
| G | Limiting water quality limit applies to Groundwater. |
| IS | Limiting water quality limit applies to Inland Surface waters. |
| E | Limiting water quality limit applies to Enclosed Bay or Estuarine waters. |
| O | Limiting water quality limit applies to Ocean waters. |
| G; IS | Limiting water quality limit applies to both Groundwater and Inland Surface water. |
| E;O | Limiting water quality limit applies to Enclosed Bay, Estuarine or Ocean waters. |

E. Values of the *Limit_Name_calc* fields in the *wq_goals* table:

- act *Limit_Name* and *Limit_Name_2* trigger different actions; use *Limit_Name* for health effects.
- ag *Limit_Name* and *Limit_Name_2* are from different agencies, offices, or sources.
- biad *Limit_Name* based on exposure from birth; *Limit_Name_2* based on adult exposure only.
- chad *Limit_Name* is for a child; *Limit_Name_2* is for an adult.
- comp *Limit_Name* and *Limit_Name_2* are for different compounds, isomers, aroclors, or salts.
- hard Actual limit is a function of water hardness as shown in pageX.xls, which is specified in *Limit_Name_notes* field.
- hudo *Limit_Name* is for humans; *Limit_Name_2* is for dogs.
- lelo *Limit_Name* is for lentic (standing water); *Limit_Name_2* is for lotic (flowing water).
- max *Limit_Name* and *Limit_Name_2* are maximum values (default; assume “max” if left blank).
- min *Limit_Name* and *Limit_Name_2* are minimum values.
- modl Actual limit is a function of other water quality parameters, and is calculated using a model.
- range Actual limit is a range from *Limit_Name* to *Limit_Name_2*.
- pH Actual limit is a function of water pH as shown in pageX.xls, which is specified in *Limit_Name_notes* field.
- pHt Actual limit is a function of water pH and temperature as shown in pageX.xls, which is specified in *Limit_Name_notes* field.
- pHts Actual limit is a function of water pH, temperature, and salinity as shown in pageX.xls, which is specified in *Limit_Name_notes* field.
- prop If both fields have values, *Limit_Name* is the current value; *Limit_Name_2* is a proposed or draft value. If *Limit_Name_2* is blank, *Limit_Name* is a proposed or draft value.
- stud *Limit_Name* and *Limit_Name_2* are based on different studies.
- suac *Limit_Name* is for subchronic exposure; *Limit_Name_2* is for acute exposure.
- units *Limit_Name* and *Limit_Name_2* are expressed in units other than ug/L. Calculations may be necessary to derive a concentration limit in water.
- upce *Limit_Name* is an upper bound estimate; *Limit_Name_2* is a central tendency estimate.

F. Fields in the “footnotes” table:

| <u>Field Name</u> | <u>Function</u> |
|---------------------------|---|
| Footnote_Number | The number of the footnote, also used in the fields <i>Limit_Name_fn1</i> and <i>Limit_Name_fn2</i> in the “wq_goals” table |
| Footnote_Text | Text of the footnote, without any cited reference or page number (not exported to SQL Server) |
| Reference_Number | Number of the reference cited in the footnote (not exported to SQL Server) |
| Page_Number | Page number cited in the footnote (not exported to SQL Server) |
| Text_Reference_Page | Calculation field that combines entries in the fields Footnote_Text, Reference_Number, and Page_Number to create the full text of the footnote |
| Chemicals_citing_Footnote | Calculation field that lists the Name1 fields of all entries in the “wq_goals” table where <i>Limit_Name_fn1</i> or <i>Limit_Name_fn2</i> matches Footnote Number in the footnotes table (not exported to SQL Server) |
| Equals_Footnote_Number | Calculation field that combines the “=” symbol with the Footnote_Number field (not exported to SQL Server) |
| Footnote_Sort | A number field used to place the footnote entries in the proper order for export to Excel (not exported to SQL Server) |

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G. Fields in the “references” table:

Note: There is no corresponding SQL Server table to this FileMaker Pro table. Information in this table is used to manage the reference information found on the “references_wq.htm” page.

| <u>Field Name</u> | <u>Function</u> |
|--------------------------|--|
| Reference_Number | The number of the reference, also used in the Reference_Number field in the “footnotes” table (not exported to SQL Server) |
| Reference_Text | Text of the reference (not exported to SQL Server) |
| Category1 | First category of water quality limit for which this is a possible reference (not exported to SQL Server) |
| Category2 | Second category of water quality limit for which this is a possible reference (not exported to SQL Server) |
| Category3 | Third category of water quality limit for which this is a possible reference (not exported to SQL Server) |
| Category4 | Fourth category of water quality limit for which this is a possible reference (not exported to SQL Server) |
| Category_Sort_Field | Used to sort the table by category of water quality limits (not exported to SQL Server) |
| Categories | Calculation field that combines the fields Category1, Category2, Category3, and Category4 for use in searching the table by category of water quality limit (not exported to SQL Server) |
| Equals_Reference_Number | Calculation field that combines the “=” symbol with the Reference_Number field (not exported to SQL Server) |

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