

SchemaChangeLog.txt

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This file documents a history of modifications to the  
schema and schematron files for the OWWQX pilot project.  
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\*\*CHANGES PRIOR TO 1/5/2005\*\*

1. OWWQX\_SimpleContent\_v1.0.xsd file --> added minlength = 1 to  
OrganizationalFormalName
2. OWWQX\_ElectronicAddress\_v1.0.xsd file --> minOccurs and maxOccurs move to after  
element ref
3. OWWQX\_MonitoringLocationGeospatial\_v1.0.xsd file --> added minOccurs = 0 to  
SourceMapScaleNumber
4. OWWQX\_FieldSamplePreparation\_v1.0.xsd file --> changed minOccurs = 1 for  
FieldSampleSubsampleDescription

\*\*CHANGES MADE FOR 1/11/2005 version\*\*

1. OWWQX\_SimpleContent\_v1.0.xsd --> Removed element and data type for:  
OrganizationalTypeCode  
AccreditationIndicator
2. OWWQX\_OrganizationalDescription\_v1.0.xsd --> removed OrganizationalTypeCode
3. OWWQX\_SimpleContent\_v1.0.xsd --> Added maxlength facet  
ElectronicAddressTypeNameDataType  
TelephoneNumberTypeNameDataType  
TelephoneExtensionNumberTextDataType  
AddressTypeNameDataType  
StateCodeDataType  
AddressPostalCodeDataType(Temp)  
CountryCodeDataType  
CountyCodeDataType  
TribalCodeDataType  
BinaryObjectFileTypeCodeDataType  
MonitoringLocationTypeNameDataType  
HorizontalCollectionMethodCodeDataType  
HorizontalReferenceDatumCodeDataType  
MeasureUnitCodeDataType  
VerticalCollectionMethodCodeDataType  
VerticalReferenceDatumCodeDataType  
ActivityTypeCodeDataType  
ActivityMediaTextDataType  
ActivityMediaSubdivisionTextDataType  
SampleIssueTaxonomicNameDataType  
SampleIssueAnatomyNameDataType  
SampleCollectionEquipmentCodeDataType  
SampleHoldingContainerMaterialCodeDataType  
SampleHoldingContainerColorCodeDataType  
SamplePreservationThermalCodeDataType  
PortableDataLoggerLineNameDataType  
ResultSampleFractionTextDataType  
ResultStatusTextDataType  
ResultStatisticalBaseCodeDataType  
ResultValueTypeNameDataType  
ResultWeightBasisTextDataType  
ResultTimeBasisTextDataType  
ResultTemperatureBasisTextDataType  
ResultParticleSizeBasisTextDataType  
MethodIdentificationCodeListIdentificationData (temp)  
DetectionQuantitationLevelTypeNameDataType
4. OWWQX\_SimpleContent\_v1.0.xsd --> Removed more enumerations for  
ElectronicAddressTypeNameDataType

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Tel ephoneNumberTypeNameDataType  
HorizontalReferenceDatumCodeDataType  
VerticalReferenceDatumCodeDataType  
ResultStatusTextDataType

5. OWWQX\_SimpleContent\_v1.0.xsd --> Added element and data type for ProjectDescriptionText
6. OWWQX\_Project\_v1.0.xsd --> Added ProjectDescriptionText
7. OWWQX\_Project\_v1.0.xsd --> Modified minOccurs = 0 for AttachedBinaryObject
8. OWWQX\_SimpleContent\_v1.0.xsd --> Removed static enumeration HorizontalCollectionMethodCodeDataType
9. OWWQX\_SimpleContent\_v1.0.xsd --> Changes datatype of ActivityConductingOrganizationIdentifier to OrganizationIdentifierDataType
10. OWWQX\_SimpleContent\_v1.0.xsd --> ActivityConductingOrganizationIdentifier moved to OWWQX\_ActivityDescription\_v1.0.xsd file
11. OWWQX\_SimpleContent\_v1.0.xsd --> Modified maxLength of:  
    CommentDataType  
    CharacteristicNameDataType
12. OWWQX\_FieldSamplePreparation\_v1.0.xsd --> made FieldSampleSubsampleDescription optional
13. OWWQX\_ResultDescription\_v1.0.xsd --> changed sequence of elements
14. OWWQX\_ResultInformation\_v1.0.xsd --> Changed name to ref.
15. OWWQX\_ResultInformation\_v1.0.xsd --> Changed reference to ResultLaboratoryCommentCode
16. OWWQX\_Result\_v1.0.xsd --> made ResultAnalyticalMethodElement global
17. Rename MeasurePrecisionText to ResultValueMeasurePrecisionText

\*\*CHANGES MADE FOR 2/8/2005 version\*\*

1. Schematron: added 2 new rules requiring top and bottom depth when vertical profile sampling activity
2. Schematron: added 2 new rules requiring SampleIssueAnatomyName and SampleIssueTaxonomicName for Biological Tissue samples
3. Removed 'Detected and Quantified' from enumeration list for ResultDetectionConditionText
4. Schematron: added rules requiring DetectionQuantitationLevelTypeName if ResultDetectionConditionText is Present Above Quantification Limit, Present Below Quantification Limit, or Not Detected
5. Annotation for OWWQX\_OWWQX\_v1.0.xsd updated
6. OWWQX\_Activity\_v1.0.xsd --> Reordered includes
7. OWWQX\_ActivityDescription\_v1.0.xsd --> reordered global element definitions
8. Schematron: added new rule requiring DetectionQuantitationLevelMeasure if ResultDetectionConditionText is Not Detected
9. OWWQX\_ElectronicAddress\_v1.0.xsd --> maxOccurs = 1 was not needed and was removed.
10. OWWQX\_ActivityLocation\_v1.0.xsd --> minOccurs changed to 0 for all elements in this schema
11. OWWQX\_LabSamplePreparation\_v1.0.xsd --> minOccurs =0 removed for LabSamplePreparationMethod
12. OWWQX\_MonitoringLocation\_v1.0.xsd --> annotation updated
13. OWWQX\_Organization\_v1.0.xsd --> project minOccurs = 0 removed
14. OWWQX\_OrganizationDescription\_v1.0.xsd --> minOccurs =1 removed
15. OWWQX\_ResultDescription\_v1.0.xsd --> minOccurs = 0 added for Characteristic name
16. schematron: rules output messages modified in some cases to provide reported Activity Type

\*\*CHANGES MADE FOR 6/24/2005 version\*\*

1. OWWQX\_ActivityDescription\_v1.0.xsd --> changed ActivityConductingOrganizationIdentifier to ActivityConductingOrganizationText and changed reference to new element.
2. OWWQX\_SimpleContent\_v1.0.xsd --> added new ActivityConductingOrganizationText element
3. OWWQX\_FieldSampleSubsampleDescription\_v1.0.xsd --> Removed

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SubsampleAssignmentProjectIdentifier

4. OWWQX\_ResultDescription\_v1.0.xsd --> Added new element SubsampleIdentifier
5. Move the SubsampleIdentifier element definition from the OWWQX\_FieldSampleSubsampleDescription\_v1.0.xsd file to the OWWQX\_SimpleContent\_v1.0.xsd file (since it is now referenced multiple times)
6. Schematron: rule requiring subsampleprojectidentifier removed
7. Schematron: rule requiring binaryobjectcontent removed to allow for external reporting of attachments

**\*\*CHANGES MADE FOR 8/8/2005 version\*\***

1. Updated the contact name in all files to Joe Wilson

**\*\*CHANGES MADE FOR 8/15/2005 version\*\***

1. Updated the namespace to use url convention instead of urn convention
2. Created root xsd file

**\*\*CHANGES MADE FOR 9/15/2005 version\*\***

1. Renamed OWWQX\_FieldSamplePreparation\_v1.0.xsd to OWWQX\_SamplePreparation\_v1.0.xsd (and data elements within)
2. Simple Content File: Renamed FieldSamplePreparationMethod to SamplePreparationMethod; also tweaked definition accordingly
3. Renamed FieldSampleSubsampleDescription to SampleSubsampleDescription (and data elements within)
4. Moved elements from SampleDescription to SamplePreparation

**\*\*CHANGES MADE FOR 10/03/2005 version\*\***

1. OWWQX\_OWWQX\_v1.0.xsd --> Modified Organization element to have maxoccurs=1 instead of unbounded
2. OWWQX\_SampleDescription\_v1.0.xsd --> Removed minOccurs=0 from SamplePreparation element
3. Simple Content File: added minLength=1 to further restrict following data types:
  - ActivityMediaTextDataType
  - ActivityTypeCode
  - BinaryObjectFileNameDataType
  - BinaryObjectFileTypeCodeDataType
  - CountryCodeDataType
  - HorizontalCollectionMethodCodeDataType
  - HorizontalReferenceDatumCodeDataType
  - MonitoringLocationIdentifierTempDataType
  - MonitoringLocationNameDataType
  - MonitoringLocationTypeNameDataType
  - OrganizationIdentifierDataType
  - ProjectIdentifierDataType
  - ProjectNameDataType
  - SampleCollectionMethodTextDataType
  - SampleHoldingContainerColorCodeDataType
  - SampleHoldingContainerMaterialCodeDataType
  - SamplePreparationMethodTextDataType
  - SamplePreservationChemicalTextDataType
  - SamplePreservationThermalCodeDataType
  - SampleTransportStorageDescriptionDataType
4. Made Latitude, Longitude, HorizontalCollectionMethodCode, and HorizontalReferenceDatumCode required (minOccurs=1) \*if they are reported\* at the activity level.
5. Changed SampleIssueTaxonomicName and SampleIssueAnatomyName to minOccurs=0 (since not always required)

**\*\*CHANGES MADE FOR 10/13/2005 version\*\***

1. OWWQX\_SimpleContent\_v1.0.xsd --> changed ProjectIdentifierDataType maxLength to 35 characters.
2. OWWQX\_MonitoringLocationGeospatial\_v1.0.xsd --> made CountryCode optional
3. OWWQX\_SimpleContent\_v1.0.xsd --> removed minLength=1 for CountryCodeDataType
4. Schematron: removed rules 17-20 that test for State and Country codes.

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5. Schematron: removed rules 36-40 that are redundant with recent schema modifications
6. Schematron: removed rules 45-50 that are redundant with recent schema modifications

\*\*CHANGES MADE FOR 11/30/2005 version\*\*

1. OWWQX\_SimpleContent\_v1.0.xsd --> changed ActivityType maxLength to 70 characters.

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\*\* CHANGES MADE FOR 5/8/2006 version \*\*  
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1. All files --> changed target namespace and owwqx namespace to http://exchangenetwork.net/schema/owwqx/1 to reflect latest Exchange Network Design Rules & Conventions
2. All files --> removed references to SC namespace if they existed
3. OWWQX\_SimpleContent\_v1.0.xsd -->
  - ProjectDescriptionText element definition updated to: "Project description, which may include a description of the project purpose, summary of the objectives, or brief summary of the results of the project."
  - Deleted BinaryObjectContent element and data type
  - Updated element and type SourceMapScaleNumber to SourceMapScaleNumeric
  - Updated element, type, and definition HorizontalCollectioMethodCode to HorizontalCollectioMethodName
  - Updated element, type, and definition HorizontalReferenceDatumCode to HorizontalCoordinateReferenceSystemDatumName
  - Addition of ResultQualifierCode element and type
  - Updated element, type, and definition VerticalCollectioMethodCode to VerticalCollectioMethodName
  - Updated element, type, and definition VerticalReferenceDatumCode to VerticalCoordinateReferenceSystemDatumName
  - Increased ActivityIdentifierDataType from 25 string to 35 string
  - Changed ActivityMediaText to ActivityMediaName
  - Changed ActivityMediaSubdivisionName to ActivityMediaSubdivisionName
  - Deleted SubSampleIdentifier element
  - Added new ActivityGroupTypeCode element and type
  - Updated element, type, and definition of SampleContainerTypeName, SampleContainerColumnName, ChemicalPreservativeUsedName, and ThermalPreservativeUsedName
  - Modified element name of DataLoggerLineName
  - Modified element name and type from ResultStatusText to ResultStatusIdentifier
  - Modified element name and type from ResultStatisticalBaseCode to StatisticalBaseCode
  - Renamed ResultValueMeasurePrecisionText to PrecisionValue
  - Renamed ResultBiasText element to BiasValue
  - Added new elements --> ConfidenceIntervalValue, UpperConfidenceLimitValue, LowerConfidenceLimitValue
  - Updated element name and type from MethodIdentifierCode to MethodIdentifier
  - Updated element name, type and definition from MethodIdentifierCodeListIdentifier to MethodIdentifierContext
  - Split AnalysisDate and Time into Start and End
  - Updated element name to DetectionQuantitationLimitTypeNameDataType
  - Split LabSamplePreparation date and time into Start and End
4. OWWQX\_AttachedBinaryObject\_v1.0.xsd --> removed BinaryObjectContent element
5. OWWQX\_MonitoringLocationGeospatial\_v1.0.xsd -->
  - Updated element SourceMapScaleNumber to SourceMapScaleNumeric
  - Updated element HorizontalCollectioMethodCode to HorizontalCollectioMethodName
  - Updated element HorizontalReferenceDatumCode to HorizontalCoordinateReferenceSystemDatumName
  - Modified so vertical measure uses reusable block
  - Updated element VerticalCollectioMethodCode to VerticalCollectioMethodName
  - Updated element VerticalReferenceDatumCode to VerticalCoordinateReferenceSystemDatumName

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Vertical CoordinateReferenceSystemDatumName

- 6. OWWQX\_ActivityLocation\_v1.0.xsd -->
  - Updated element SourceMapScaleNumeric
  - Updated element HorizontalCollectionMethodCode to

Horizontal CollectionMethodName

- Updated element HorizontalReferenceDatumCode to

Horizontal CoordinateReferenceSystemDatumName

- 7. Created new file: OWWQX\_Measure\_v1.0.xsd

8. OWWQX\_ActivityDescription\_v1.0.xsd -->

- Changed ActivityMediaText to ActivityMediaName
- Changed ActivityMediaSubdivisionText to ActivityMediaSubdivisionName
- Changed all Depth measure fields to reference measure block and use term 'Height' instead of altitude.

9. OWWQX\_Organization\_v1.0.xsd : added Activity

10. OWWQX\_MonitoringLocation\_V1.0.xsd: removed Activity

11. OWWQX\_ActivityDescription\_v1.0.xsd: add MonitoringLocationIdentifier element

12. OWWQX\_SamplePreparation\_V1.0.xsd --> Removed SubSample information

13. OWWQX\_SampleSubSampleDescription\_V1.0.xsd --> removed file

14. OWWQX\_ResultDescription\_V1.0.xsd -->

- Removed SubsampleIdentifier element
- Modified element name of DataLoggerLineName
- Modify to reference Measure block (also remove Unit Code element)
- Modify element name of ResultStatusIdentifier
- Modify element name of StatisticalBaseCode
- Removed reference to elements Precision and Bias and replaced with new

DataQuality block

15. OWWQX\_ActivityGroup\_V1.0.xsd --> new file created

16. OWWQX\_SamplePreparation\_v1.0.xsd --> modified names for SampleContainerTypeName, SampleContainerColumnName, ChemicalPreservativeUsedName, and

ThermalPreservativeUsedName

17. Created new file: OWWQX\_DataQualityIndicator\_v1.0.xsd

18. OWWQX\_ReferenceMethod\_v1.0.xsd --> Updated reference to elements

MethodIdentifier and MethodIdentifierContext

19. OWWQX\_ResultLabelInformation\_v1.0.xsd -->

- split out analysis date and time to start and end
- Update reference to DetectionLimit instead of DetectionLevel

20. OWWQX\_DetectionQuantitationLimit\_v1.0.xsd -->

- Updated file name and all text within to say Limit instead of Level
- Reference Measure block

21. OWWQX\_LabSample\_preparation\_v1.0.xsd -->

- Split sample preparation date and time into start and end
- Updated SamplePreparationMethod to harmonize with ESAR term and definition.

22. OWWQX\_SampleDescription\_V1.0.xsd --> changed SamplePreparation to be optional.

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\*\* CHANGES MADE FOR 5/25/2006 version \*\*

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1. Moved ActivityGroup from Activity to Organization level

2. Made modifications to definition of ActivityGroup complex type

3. OWWQX\_SampleContent\_v1.0.xsd -->

- new elements for ActivityGroupIdentifier and ActivityGroupName
- new elements for MethodQualifierType and MethodDescriptionText
- modified definition for ActivityIdentifier
- Changed SampleCollectionEquipmentCode to SampleCollectionEquipmentName
- Changed max length of ConfidenceIntervalValue from 60 to 15
- Changed max length of UpperConfidenceIntervalValue from 60 to 15
- Changed max length of LowerConfidenceIntervalValue from 60 to 15
- Changed max length of ActivityGroupTypeCode from 70 to 50
- Changed max length of MeasureQualifierCode from 25 to 5

4. OWWQX\_ReferenceMethod\_v1.0.xsd -->

- Made modifications to definition of ReferenceMethod complex type
- Made MethodIdentifier and MethodIdentifierContext required

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5. OWWQX\_SamplePreparation\_v1.0.xsd --> modified to reference method block
6. OWWQX\_SampleDescriptionV1.0.xsd -->
  - modified SampleCollectionMethodText to reference reusable method block
  - changed SamplePreparation to no longer be unbounded
7. OWWQX\_MonitoringLocation\_Deletev1.0.xsd --> removed file (no longer needed)
8. OWWQX\_Organization\_Deletev1.0.xsd --> modified structure based on new schema structure

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\*\* CHANGES MADE FOR 5/31/2006 version \*\*  
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1. Did a complete replace of the text 'OWWQX' with the text 'WQX' (including file names)
2. Changed schema contact

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\*\* CHANGES MADE FOR 8/9/2006 version \*\*  
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1. Added 8 and 12 digit HUC Code
2. Added ActivityRelativeDepthName
3. Created new file WQX\_WQX\_Time.xsd
4. Added TimeZone for all time elements
5. Removed optional Context attribute from Postal Code and MonitoringLocationIdentifier
6. Created new file WQX\_AlternateMonitoringLocation and added AlternateMonitoringLocationIdentity
7. Added new element: SampleCollectionEquipmentCommentText
8. Changed LocationAddressText to AddressText
9. Changed AddressPostal Code to Postal Code
10. Removed element ActivityAssignmentProjectIdentifier and replaced with reference to ProjectIdentifier
11. Move tribal code to Organization Description
12. New elements TribalLandIndicator and TribalLandName
13. Added new elements ResultDepthAltitudeReferencePointText and ResultDepthHeightMeasure to the Result block.

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\*\* CHANGES MADE FOR 8/17/2006 version \*\*  
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1. Changed order for Monitoring Location Identity to have AlternateMonitoringLocationIdentity last
2. Made MeasureValue and MeasureUnitCode required if reported in WQX\_MeasureCompact\_v1.0.xsd
3. Increased TimeZoneCode to maxLength 4

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\*\* CHANGES MADE FOR 8/30/2006 version \*\*  
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1. Changed Result's ValueMeasure to custom type ResultValueMeasure
2. Global change of namespace from http://exchangenetwork.net/schema/wqx/1 to http://www.exchangenetwork.net/schema/wqx/1

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\*\* CHANGES MADE FOR 9/13/2006 version \*\*  
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1. Created new ResultAnalyticalMethod complex type and modified Result block to reference this new type for Analysis Method.
2. Modified index.xsd to reflect repository storage relative paths

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\*\* CHANGES MADE FOR 10/12/2006 version \*\*

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1. Added new ResultCount element to SimpleContent and WQX\_Activity files.
2. New schema files for Transaction History outbound (WQX\_TransactionHistory\_v1.0.xsd and WQX\_OutboundSimpleContent\_v1.0.xsd)
3. New schema file for Domain values (WQX\_DomainValues\_v1.0.xsd)
4. Index.xsd modified to include 2 new root-level schemas

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\*\* CHANGES MADE FOR 10/17/2006 version \*\*

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1. Changed ChemicalPreservativeUsedName and ThermalPreservativeUsedName to optional (minOccurs=0)
2. Removed minLength=1 facet restriction from ChemicalPreservativeUsedName and ThermalPreservativeUsedName

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\*\* CHANGES MADE FOR 1/19/2007 version \*\*

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1. Changed Transaction history end date and end time to optional (minOccurs=0)