

```

<?xml version="1.0" encoding="UTF-8" ?>
- <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="http://www.ciwmb.ca.gov/schemas/swis"
  targetNamespace="http://www.ciwmb.ca.gov/schemas/swis" elementFormDefault="qualified" attributeFormDefault="unqualified" >
- <xs:element name="Inspections">
- <xs:complexType>
- <xs:sequence>
- <xs:element name="Inspection" maxOccurs="unbounded">
- <xs:complexType>
- <xs:sequence>
  <xs:element name="InspectionType" type="xs:string" nillable="false" />
  <xs:element name="InputDate" type="xs:date" minOccurs="0" />
  <xs:element name="SwisNumber" type="SwisNumberType" nillable="false" />
  <xs:element name="VersionNumber" type="xs:int" nillable="false" />
  <xs:element name="LocalInspectionID" type="xs:string" nillable="false" />
  <xs:element name="EnforcementAgencyID" type="xs:int" nillable="false" minOccurs="0" />
  <xs:element name="InspectionDate" type="xs:date" nillable="false" />
  <xs:element name="TimeIn" type="xs:string" minOccurs="0" />
  <xs:element name="TimeOut" type="xs:string" minOccurs="0" />
- <xs:element name="ProgramCode" nillable="false">
- <xs:simpleType>
- <xs:restriction base="xs:string">
  <xs:enumeration value="LEAPeriodic" />
  <xs:enumeration value="LEAFocused" />
  <xs:enumeration value="CIWMBClosedSites" />
  <xs:enumeration value="CIWMBEnforcementAgent" />
  <xs:enumeration value="CIWMBFocused" />
  <xs:enumeration value="CIWMBPeriodic" />
- </xs:restriction>
- </xs:element>
  <xs:element name="FacilityName" type="xs:string" minOccurs="0" />
  <xs:element name="FacilityLocation" type="xs:string" minOccurs="0" />
  <xs:element name="InspectorName" type="xs:string" nillable="false" />
- <xs:element name="InspectorSignature" minOccurs="0">

```

SWIS Digital Inspections Project

Chris Allen, Information Management Branch
California Integrated Waste Management Board

August 22, 2008

SWIS Digital Inspections: Introduction

- ▶ Alternative method for LEAs to submit solid waste facility inspection data in electronic format rather than paper.
- ▶ Two methods initially offered:
 - ▶ Data entry by authorized users using a secured web form. **OR**
 - ▶ Uploading of batch data in specified XML format by authorized users using a secured web site.
- ▶ Batch data must be uploaded using the XML schema (data specification) provided by the CIWMB.
- ▶ Using batch process will require LEAs to seek their own IT assistance—CIWMB cannot provide IT training/consulting.
- ▶ Optional program—LEAs can continue to provide paper forms if they wish.
- ▶ Procedures and schema draft available during October 2008.
- ▶ Production availability anticipated in early 2009.



Project Goals:

- ▶ Response to CCDEH and LEA requests for Board “to set in place XML-based electronic reporting system.”
- ▶ Develop an approach based on standard industry technologies and practices (XML, web services).
- ▶ Find an approach(s) that will be accessible/adoptable by as many LEAs as practical.
- ▶ Approach(s) can be used/implemented by any interested database vendors or other interested parties.
- ▶ Implement the service relatively quickly.
- ▶ Minimize costs to the CIWMB.



How It Will Work:

1) LEA Reviews Program Web Site

Note: The draft process below has not received final internal approval and is still subject to change.

- ▶ Interested parties review the program web site
 - ▶ Program procedures and policies.
 - ▶ Participant data exchange agreement.
 - ▶ XML Schemas and available web services information.
 - ▶ Suggested IT resources on formatting data in XML and use of XML schemas.
 - ▶ Information on accessing and using the self-service test site.



How It Will Work

2) LEA Uses Self-Service Test Site

- ▶ Interested parties access the self-service testing site
 - ▶ Requires acquiring a Cal/EPA WebPass for login (easy to do).
 - ▶ Users can perform unlimited informal testing using the web form and/or batch data entry methods.
 - ▶ Testing site will return detailed error messages.
 - ▶ When LEA is ready, they will use the test web site to perform a “formal” test to demonstrate their ability to use the system.
 - ▶ A successful “formal” test will result in the tester receiving a success code they will included in their data exchange agreement application to the CIWMB.



How it will work:

3) LEA Submits Data Exchange Agreement

- ▶ LEA completes and submits a data exchange agreement to the CIWMB.
 - ▶ Includes the LEA's successful testing code from their "formal" test.
 - ▶ Specifies who the primary program and technical contacts will be for the LEA.
 - ▶ Specifies other users who should have access/rights to enter/upload inspection data.
 - ▶ Specifies other aspects of the data exchange agreement, e.g.,
 - ▶ LEA's responsible for timely submittal in electronic or paper format.
 - ▶ Email notifications to LEA if submittals overdue.
 - ▶ Operator must be provided any updates to inspection data.
 - ▶ All noted violations/areas of concern require comments.



How It Will Work:

4) CIWMB Approves LEA To Use System

- ▶ Assuming LEA has completed a successful “formal” test (web form and/or batch), they will be approved to use the system.
- ▶ Users will be granted access to the system.
- ▶ Users login with their Cal/EPA WebPass and enter data via web form or upload data in the specified XML format.
- ▶ CIWMB will send emails to program and/or technical contacts when any problems or unusual activities occur.



How It Will Work

5) Authorized LEA Users Use System

Web Form

SWIS Online Prototype v1.0.0 Authorized Use Only Home | Reports | Help | Sign Out
DEVELOPMENT SECUREDEV DEVELOPMENT SECUREDEV

Search Digital Submittals
Submit Inspection Batch
Submit Single Inspection
My Submittals
System Admin

Inspection Report: Closed Disposal Site Inspection Report

Save Cancel

Enforcement Agency: County of Alameda
SWIS Number: * 01-AA-0001 [SWIS Number Lookup](#)

Program Code (Select only one code): *
 LEA CIWMB Closed CIWMB Periodic Sites Focused
 LEA CIWMB CIWMB Focused Enforcement Agent Periodic

Received Date: 8/21/2008
Inspection Date: *
Time In:
Time Out:
Inspection Time:

Facility Name: Turk Island Landfill
Received By (Operator): Turk Island Company
Facility Location: 32505 Union City Blvd
Owner:

Inspector: *
Inspector Signature:
Also Present:

V	A	Post Closure	
<input type="checkbox"/>	<input type="checkbox"/>	20750 - Site Maintenance	Edit Comments
<input type="checkbox"/>	<input type="checkbox"/>	21180 - PostClosure Maintenance	Edit Comments
<input type="checkbox"/>	<input type="checkbox"/>	21190 - PostClosure Land Use	Edit Comments
V	A	Gas Monitoring And Control System	
<input type="checkbox"/>	<input type="checkbox"/>	20918 - Exemptions	Edit Comments

Batch Upload

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DEVELOPMENT SECUREDEV DEVELOPMENT SECUREDEV

Search Digital Submittals
Submit Inspection Batch
Submit Single Inspection
My Submittals
System Admin

Digital Inspection: Submit Batch Inspection

File Name: Browse

SWIS Online Prototype <http://secure.ciweb.ca.gov/SwisOnline/>
Contact: [CIWMB webmaster](#)

Entering a single inspection using the web form—Select a facility

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DEVELOPMENT SECUREDEV **DEVELOPMENT SECUREDEV**

Search Digital Submittals

Submit Inspection Batch

Submit Single Inspection

My Submittals

System Admin

Select the Inspected SWIS Facility

SWIS Number:

Site Name:

SWIS NUMBER	SITE NAME	LOCATION	ENFORCEMENT AGENCY	OPERATOR
01-AA-0001	Turk Island Landfill	32505 Union City Blvd	County of Alameda	Turk Island Company
01-AA-0003	Pleasanton Garbage Service SW TS	3110 Busch Road	County of Alameda	Pleasanton Garbage Service, Inc
01-AA-0004	West Beach Sanitary Landfill	Sw Corner Alameda Nas	County of Alameda	
01-AA-0006	Davis Street Sanitary Landfill	W End Of Davis St.	County of Alameda	Waste Management Of Alameda County
01-AA-0007	Davis St Trans Sta/Resource Recov Complx	2615 Davis Street	County of Alameda	Waste Mgt. Of Alameda Co.
01-AA-0008	Tri Cities Recycling & Disposal Fac	7010 Auto Mall Parkway	County of Alameda	Waste Mgt. Of Alameda Co.
Multiple Activities	Altamont Landfill & Resource Recv`ry	10840 Altamont Pass Road	County of Alameda	Waste Management Of Alameda County
01-AA-0010	Vasco Road Sanitary Landfill	4001 North Vasco Road	County of Alameda	Republic Services Of California I, L.L.C
01-AA-0011	Albany Landfill	W End Buchanan St.	County of Alameda	
01-AA-0012	City Of Alameda SW II-2 Disposal Site	N Side Doolittle Dr @ Br To Alameda Isl.	County of Alameda	

Page 1 of 5 1 2 3 4 5 Count: 45

- Search Digital Submittals
- Submit Inspection Batch
- Submit Single Inspection
- My Submittals
- System Admin

Inspection Report: Closed Disposal Site Inspection Report

Save Cancel

Enforcement Agency: County of Alameda

SWIS Number: * 01-AA-0001 [SWIS Number Lookup](#)

Program Code (Select only one code): *

LEA Periodic
 CIWMB Closed Sites Focused
 CIWMB Focused
 LEA Focused
 CIWMB Enforcement Agent
 CIWMB Periodic

Received Date: 8/21/2008

Inspection Date: *

Time In:

Time Out:

Inspection Time:

Facility Name: Turk Island Landfill

Facility Location: 32505 Union City Blvd

Inspector: * **Inspector Signature:**

Received By (Operator): Turk Island Company

Owner:

Also Present:

V	A	Security	
<input type="checkbox"/>	<input type="checkbox"/>	21135 - Security at Closed Sites	Edit Comments
<input type="checkbox"/>	<input type="checkbox"/>	21137 - Structure Removal	Edit Comments
<input type="checkbox"/>	<input type="checkbox"/>	20530 - Site Security	Edit Comments

Comments (Note: for additional or continued comments use the CIWMB 03 or attach additional pages.):

Save Cancel

```
<?xml version="1.0" encoding="UTF-8" ?>
<!-- Sample XML file generated by XMLSpy v2008 sp1 (http://www.altova.com) -->
- <Inspections xsi:schemaLocation="http://www.ciwmb.ca.gov/schemas/swis/SWISInspectionv1.xsd SWISInspectionv1.xsd"
  xmlns:mstns="http://www.ciwmb.ca.gov/schemas/swis/SWISInspectionv1.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <Inspection>
  <InspectionType>52A</InspectionType>
  <InputDate>2008-03-11</InputDate>
  <SwisNumber>42-AA-0017</SwisNumber>
  <VersionNumber>1</VersionNumber>
  <LocalInspectionID>12345</LocalInspectionID>
  <ProgramCode>LEAPeriodic</ProgramCode>
- <InspectionDateTime>
  <Date>2008-01-17</Date>
  <TimeIn>7:15AM</TimeIn>
  <TimeOut>11:15AM</TimeOut>
</InspectionDateTime>
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  <FacilityLocation>South End of Avalon St. Lompoc</FacilityLocation>
- <Inspector>
  <InspectorName>James R. Hamlin</InspectorName>
  <InspectorSignature Image="0xFFD8FFE000104A46494600010101006000600000FFDB00430008060607060...."
    ImageType="jpeg" />
</Inspector>
- <Owner>
  <OwnerSignature Image="0xFFD8FFE000104A46494600010101006000600000FFDB00430008060607060..."
    ImageType="jpeg" />
</Owner>
  <RecievedBy>Joe Smith</RecievedBy>
  <AlsoPresent />
- <Violations>
  <Violation ViolationCode="20690" SeverityLevel="A" />
  <Violation ViolationCode="20820" SeverityLevel="A" />
</Violations>
  <Comment>200820 Noted Deep Cutting Erosion Along Westren Perimeter Noted Some Waster Has Been Exposed From
  The Recent Erosion. Cover All Exposed Waster And Repair Erosion on the Intermediate Cover. 20690 Noted Some Waste
  Exposed In The Green-Waster ADC, Assure All ADC Areas Are Properly Providing Adequate Cover.</Comment>
- <Attachments>
  <Attachment Title="Inspection Document"
    Image="0xFFD8FFE000104A46494600010101006000600000FFDB004300080606070605080707070909080A0C140...."
    AttachmentType="Inspection" Order="0" ImageType="pdf" />
</Attachments>
```

DRAFT XML Upload
DO NOT USE THIS SCHEMA

Upload Batch Data in XML Format

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DEVELOPMENT SECUREDEV DEVELOPMENT SECUREDEV

[Search Digital Submittals](#)

[Submit Inspection Batch](#)

[Submit Single Inspection](#)

[My Submittals](#)

[System Admin](#)

Digital Inspection: Submit Batch Inspection

File Name:

SWIS Online Prototype <https://secure.ciwmb.ca.gov/SWISOnline/>
Contact: [CIWMB Webmaster](#)



Why Should I Enter Data via Web Form

- ▶ May not be relevant if you already collect your data in a data system (in-house or commercial).
- ▶ Improved accuracy and consistency—web form will check/validate your entry. Key fields automatically entered once SWIS facility and inspection type selected.
- ▶ Ability to generate clean/readable/professional-looking printed reports/outputs of an inspection that could be emailed and/or mailed to the operator.
- ▶ Notes will be captured via your data entry—assists you, the operator, and the public in providing transparency.
- ▶ This approach requires minimal IT assistance and costs.



Uploading Data in Batch

- ▶ Uses XML and other industry standard technologies.
- ▶ Useful for those who collect their inspection data in an in-house or commercial database.
- ▶ Detailed error messages will be provided for error batches.
- ▶ Entire batch will not be accepted until it is entirely “correct” (i.e., is validated against the CIWMB’s SWIS DIP XML Schema).
- ▶ Public web services will be available for lookup values used in the XML Schema (e.g., program code, image type, etc.)
- ▶ Attachments can be embedded in the XML submission or later added manually to inspections.
- ▶ Each inspection record must have a globally unique ID provided to the Board.
- ▶ Specifications will be open and available to vendors and other interested parties.



Key Issues and Concerns 1

- ▶ This is a voluntary program.
- ▶ This new process does not mandate any particular business process for collecting data.
- ▶ Digital photos and attachments are supported.
- ▶ All project specifications and policies will be publicly available to all interested parties.
- ▶ This project is **not** about laptops or PDA access, but LEAs could certainly use such devices to collect information prior to submittal to CIWMB.
- ▶ LEAs can use grant funds to pay for [some] costs.



Key Issues and Concerns 2

- ▶ Submitting data as XML batch uploads will require IT expertise.
- ▶ Going “paperless” may require LEAs to change their internal business processes.
- ▶ CIWMB will minimize breaking changes to the XML schema once in production. Any breaking schema changes will be announced well in advance.
- ▶ Eventually schema will probably change when SWIS is redesigned in future years.
- ▶ Who can help LEAs with this: Your IT staff, IT contractors, your software vendor that provides “environmental tracking” software.



Next Steps / Call to Action

- ▶ Review the SWIS DIP project web site

<http://www.ciwmb.ca.gov/SWIS/DIP/>

- ▶ Full demonstration scheduled for the November LEA Conference
- ▶ Interested CCDEH members should participate



Questions and Answers

- ▶ Questions/Concerns:
 - ▶ SWIS DIP Web Site:
<http://www.ciwmb.ca.gov/SWIS/DIP/>
 - ▶ Program contact: Bonnie Cornwall
bcornwall@ciwmb.ca.gov
 - ▶ Technical contact: Chris Allen
callen@ciwmb.ca.gov

