Big Valley Rancheria

Linda Rosas
Data Management /GIS Specialist
STORET/WQX

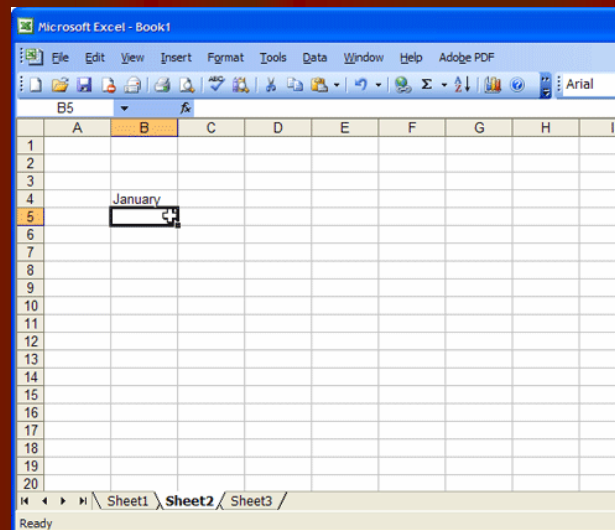# What Sort of Data does Big Valley Collect?

- **Water quality parameters from Clear Lake** – this is measured by a portable unit and staff write the measurements in a data sheet

- **Pesticide monitoring data** – sampling tules, water and soil for pesticide residue – staff submits samples to a lab that sends lab reports back to the Tribe

What Sort of Data does Big Valley Collect, continued?

- **Data from monitoring wells** – sent off to lab plus some in house analysis

- **Safe Drinking Water Act monitoring of our 2 drinking water wells** – sent off to lab

- **Lead** – Testing Tribal member for lead exposure

Previous Storage Habits

- File Cabinets
- Excel Spread Sheets
- Notebooks
- Field sheets

Issues with Previous Storage

- How to analyze data
- How to track information
- Not stored in useable format
- Spread out everywhere

How it was resolved?

- Network Exchange grant allowed us to reformat our data into the STORET template

- Eric Wilson

- Team Effort

- Training, Training, Training

Submitting Data

PROJECTS

Project ID	Name	Start Date	Duration	Purpose
CLM	Clear Lake Monitoring		On Going	Monitoring Clear Lake
SW	Storm Water Drain	12/4/2007	On Going	Storm Drain Monitoring

STATIONS

Station ID	Station Name	Primary Type	Latitude	Longitude	Geopositioning Method	Geopositioning Datum	State	County	Station Description
BV CL1	LAKE1	Lake			028	NAD83		Lake	
BV CL2	LAKE 2	Lake	39.01 28584	122.53 05309	028	NAD83	CA	Lake	75ft off end of lands end, next to shore line
BV CL3	LAKE 3	Lake	39.01 36955	122.53 05852	028	NAD83	CA	Lake	Slightly South of Lands end Site

RESULTS

Project ID	Station ID	Activity ID	Medium	Activity Type	Activity Category	Activity Start Date	Activity Start Time	Activity Start Time Zone
CLM	BVCL2		Water	Field Msr/Obs	Routine Msr/Obs	11/28/2007	9:39 AM	PST
CLM	BVCL2		Water	Field Msr/Obs	Routine Msr/Obs	11/28/2007	9:39 AM	PST
CLM	BVCL2		Water	Field Msr/Obs	Routine Msr/Obs	11/28/2007	9:39 AM	PST

WQX

WQX XML Generation

Organization ID	
Org. Formal Name	Big Valley Rancheria Band of Pomo Indians
Org. Desc.	
Contact Person	Sarah Ryan
Contact Phone	707-263-3924
Contact Email	sryan@big-valley.net
Organization Street	2726 Mission Rancheria Road
Organization City	Lakeport
Organization State	CA
Organization ZIP	95453
Organization Country	US
Organization County	

XML

```xml
<MonitoringLocation>
  <MonitoringLocationIdentity>
    <MonitoringLocationIdentifier>SW</MonitoringLocationIdentifier>
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    <MonitoringLocationTypeName>Well</MonitoringLocationTypeName>
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  </MonitoringLocationIdentity>
  <MonitoringLocationGeospatial>
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    <LongitudeMeasure>-122.533825</LongitudeMeasure>
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    <VerticalCoordinateReferenceSystemDatumName />
    <CountryCode>US</CountryCode>
    <StateCode>CA</StateCode>
    <CountyCode>033</CountyCode>
  </MonitoringLocationGeospatial>
</MonitoringLocation>
<!--
   + + + + + + + + + + + + + + + + + + +
   //  ACTIVITY
   + + + + + + + + + + + + + + + + + + +
-->
<Activity>
  <ActivityDescription>
    <ActivityIdentifier>642</ActivityIdentifier>
    <ActivityTypeCode>Sample-Routine</ActivityTypeCode>
    <ActivityMediaName>Water</ActivityMediaName>
    <ActivityStartDate>2007-06-27</ActivityStartDate>
    <ActivityStartTime>
      <Time>09:20:00</Time>
      <TimeZoneCode>PDT</TimeZoneCode>
    </ActivityStartTime>
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    <MonitoringLocationIdentifier>SW</MonitoringLocationIdentifier>
  </ActivityDescription>
  <ActivityLocation>
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    <LongitudeMeasure>-122.533825</LongitudeMeasure>
    <HorizontalCollectionMethodName>GPS-Unspecified</HorizontalCollectionMethodName>
    <HorizontalCoordinateReferenceSystemDatumName>NAD83</HorizontalCoordinateReferenceSystemDatumName>
  </ActivityLocation>
  <SampleDescription>
    <!-- Sample Collection Method is required when Activity Type Code contains the word "Sample" -->
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      <MethodIdentifier>SCM 1</MethodIdentifier>
      <MethodIdentifierContext>Big Valley Rancheria Drinking Water Quality Assurance Program Plan (QAPP)
```

Some benefits of our new data management:

- We've had to review all our sampling sites and some have been eliminated or renamed. All have been given lats and longs

- We are using a version of the template (Excel based) to keep track of all our maps, important documents, books, assessments and other studies

Big Valley's Network Information Grants

- Received a One Stop grant in 2004
  - Objective: Develop a node to submit our environmental data
    - <u>Tasks</u> – Review data collection of Tribe. Determine other local Tribes' involvement. Produce Data Management QAPP. Develop node. Have a successful data submission.
    - <u>Obstacles</u> – Complicated technology that was not easily understood by staff. Lots of delays including going through 2 Consultants to get the work done. Confusion about SDWIS data and Ambient Water Quality data – difficulties getting anything to "fit" into the WQX format; characteristics and procedure codes didn't match.

Big Valley's Network Information Grants

- Received a Network Exchange Grant in 2007
  - Objective: Regular data submissions, including from local Tribes
    - <u>Tasks</u> – Complete metadata for all BVR sampling projects and stations. Develop flow configuration documents for each type of data submission. Data migration from STORET to XML for WQX. Mentor other local Tribes to submit data through node.
    - <u>Larger goals</u> - Be able to submit data without a consultant. Have translation software that can handle our sampling parameters yet still be acceptable to WQX (so it won't be thrown back as an error). Mentor local Tribes to use WQX template with 'acceptable sampling information' so that they are responsible for their own data and it can be successful submitted through BVR's node. Develop website that has realtime data and showcases environmental data collection.

Tips

- Find your data
- Organize your data
- Set up your template
- Find a friend.

??Questions??

Linda Rosas
Environmental
Data Management
/ GIS Specialist
Big Valley
Rancheria Band of
Pomo Indians
(707) 263-3924
Ext. 104