

Rouge River National Wet Weather Demonstration Project

Illicit Discharge Elimination Program Training

THE ROUGE RIVER PROJECT
A WORLD CLASS EFFORT



BRINGING OUR RIVER BACK TO LIFE

January 2000

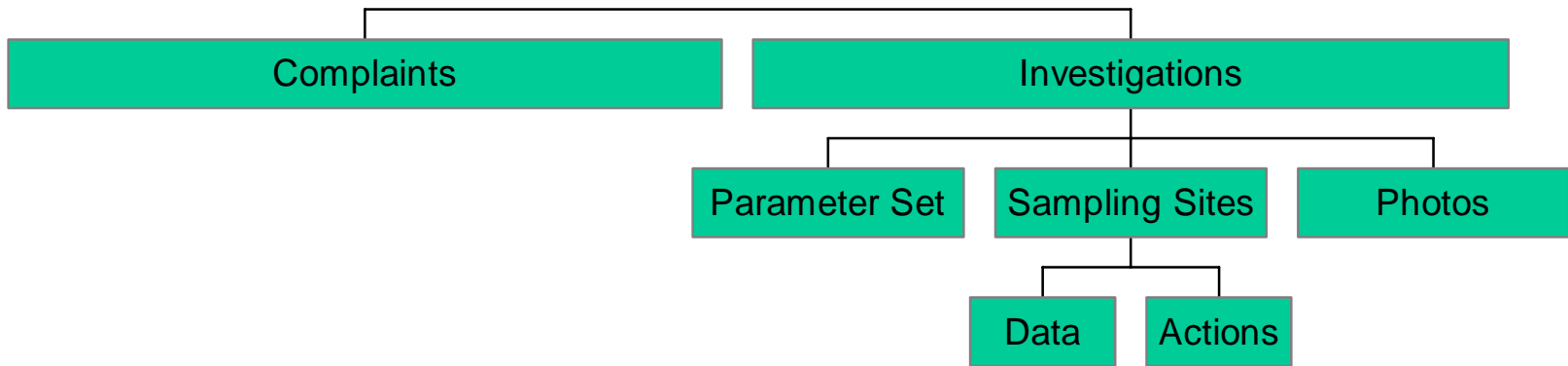


Illicit Discharge Elimination Program

Illicit Discharge Elimination Program (IDEP)

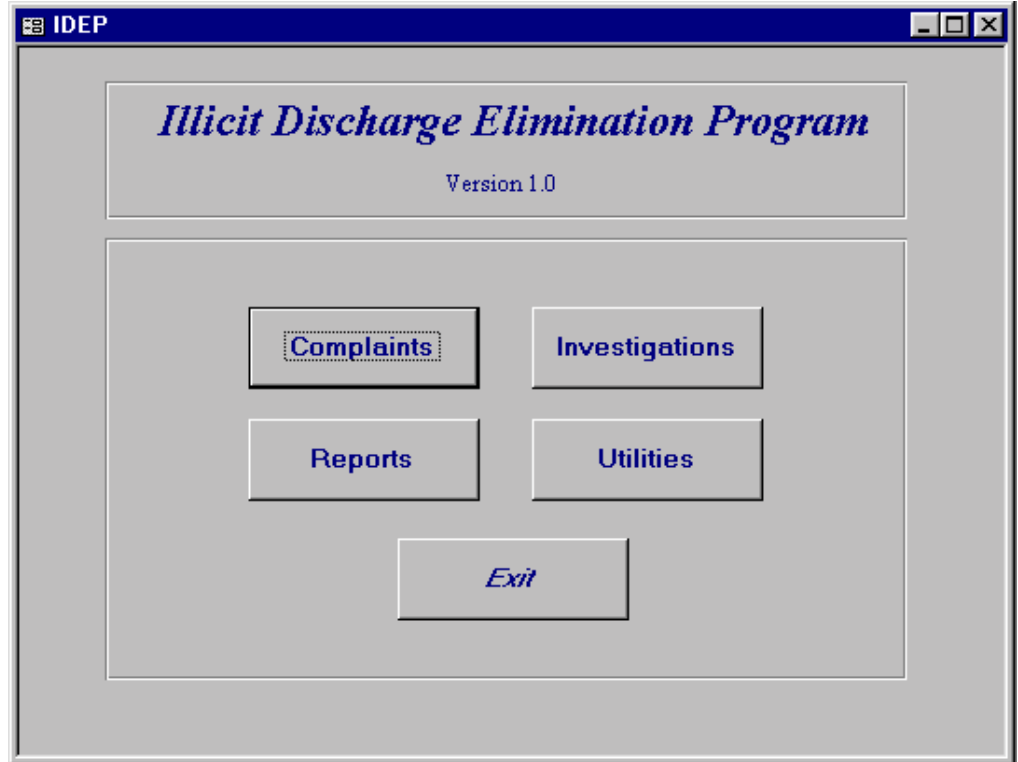
- Program tool using Access and ArcView developed as part of the Rouge River National Wet Weather Demonstration Project to allow communities to record complaints and investigations about Illicit Discharge Activities
- Users can use the reports and mapping tools to aid in their record keeping and investigations

IDEP Structural Diagram



Main Form

- Four Modules
 - Complaints
 - Investigations
 - Reports
 - Utilities



Complaint Module

- View
- Allows authorized user to:
 - Add
 - Delete
 - Edit

The screenshot shows a Microsoft Access window titled "Complaint" with a menu bar (File, Edit, View, Insert, Format, Records, Tools, Window, Help) and a toolbar. The form contains the following fields and controls:

- Complaint ID:** Text box with "LR1" entered. Buttons: "Map", "Add to Map".
- Complainant:**
 - Name:** Text box
 - Phone:** Text box
 - Address:** Text box
 - City:** Text box
 - State:** Text box
 - Zip Code:** Text box
- Complaint Information:**
 - Type:** Dropdown menu (selected: "legal Dumping")
 - Source:** Dropdown menu (selected: "MDEQ")
 - Date:** Text box
 - Time:** Text box
 - Hotline No.:** Text box
 - Community:** Text box
 - County:** Text box
 - Location:** Text box
 - Complaint:** Text box
 - Comments:** Text box
 - Referred To:** Dropdown menu

On the right side of the form, there are buttons: "Add", "Delete", "Edit", "Search", and "« Back". At the bottom, there is a record navigation bar showing "Record: 1 of 6". The status bar at the very bottom displays "Complainant name" and "NUM".

Action Buttons

- **Add** - allows authorized user to create new records
- **Delete** - allows authorized user to delete records
- **Edit** - allows authorized user to edit existing records
- **Search** - allows user to search for items in a field
- **Back** - returns user to previous menu



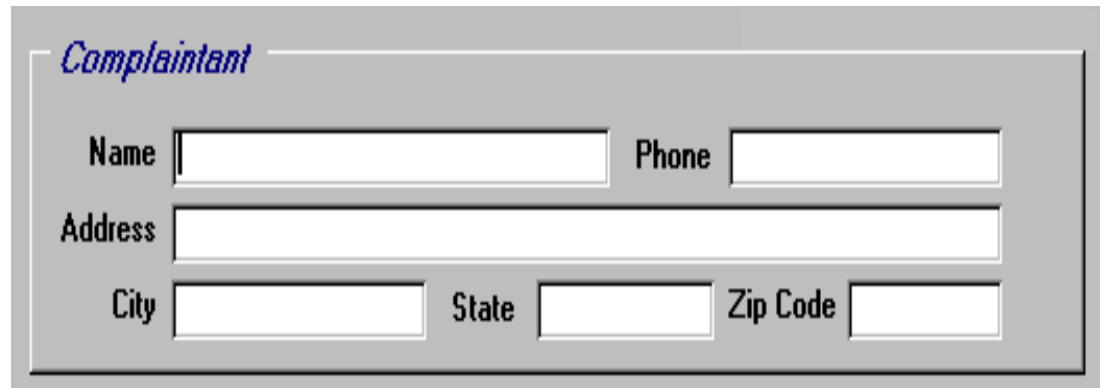
Complaint ID

- Complaints are stored using the Complaint ID found at top of Complaint form
- First 2 digits used to identify reporting unit ID

Complaint ID

Complainant Section

- Allows user to enter information about the party making the complaint



Complainant

Name Phone

Address

City State Zip Code

The image shows a form titled "Complainant" with a light gray background. It contains several input fields: "Name" and "Phone" are on the same line with separate boxes; "Address" is a single wide box; "City", "State", and "Zip Code" are on the same line with separate boxes.

Complaint Information Section

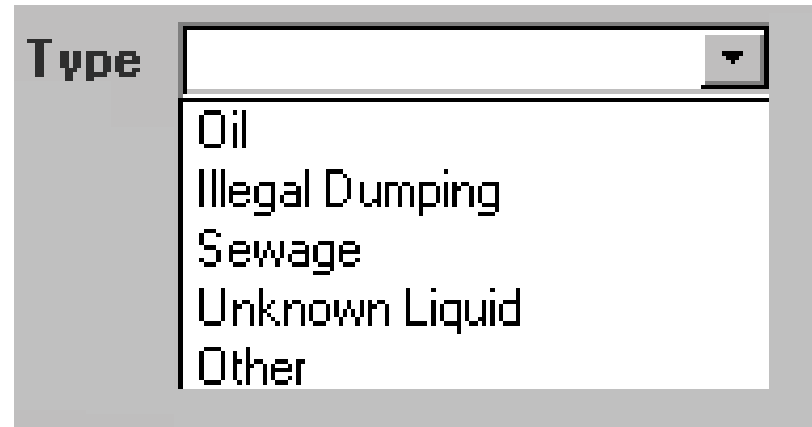
- Allows user to enter information about the complaint

Complaint Information

Type	<input type="text"/>	Source	<input type="text"/>		
Date	<input type="text"/>	Time	<input type="text"/>	Hotline No.	<input type="text"/>
Community	<input type="text"/>	County	<input type="text"/>		
Location	<input type="text"/>				
Complaint	<input type="text"/>				
Comments	<input type="text"/>				
Referred To	<input type="text"/>				

Complaint Type

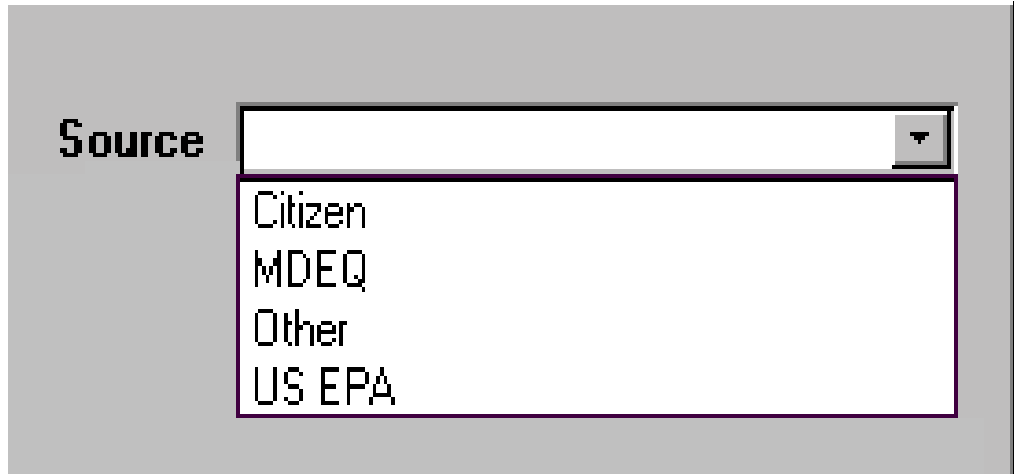
- Complaint Type Drop Down Menu choices
 - Oil
 - Illegal dumping
 - Sewage
 - Unknown Liquid
 - Other
- May Modify menu choices in Utilities module



The image shows a screenshot of a software interface. On the left, the word "Type" is written in a bold, black font. To its right is a dropdown menu. The menu is currently open, showing a list of five options: "Oil", "Illegal Dumping", "Sewage", "Unknown Liquid", and "Other". The menu has a white background and a thin black border. A small downward-pointing arrow is visible in the top right corner of the menu's header area.

Complaint Source

- Complaint Source Drop Down Menu Choices
- May Modify menu choices in Utilities module



A screenshot of a software interface showing a dropdown menu. The label 'Source' is positioned to the left of the menu. The menu is open, displaying four options: 'Citizen', 'MDEQ', 'Other', and 'US EPA'. The menu has a small downward-pointing arrow icon on the right side of its header.

Add New Record

- Select “Add” to create new record
- White indicates available fields
- Select “Save” when complete

Complaint ID

Complainant

Name Phone

Address

City State Zip Code

Complaint Information

Type Source

Date Time Hotline No.

Community County

Location

Complaint

Comments

Referred To

Save Record

- After selecting “Save” screen is gray indicating the record has been saved

Complaint ID

Complainant

Name Phone

Address

City State Zip Code

Complaint Information

Type Source

Date Time Hotline No.

Community County

Location

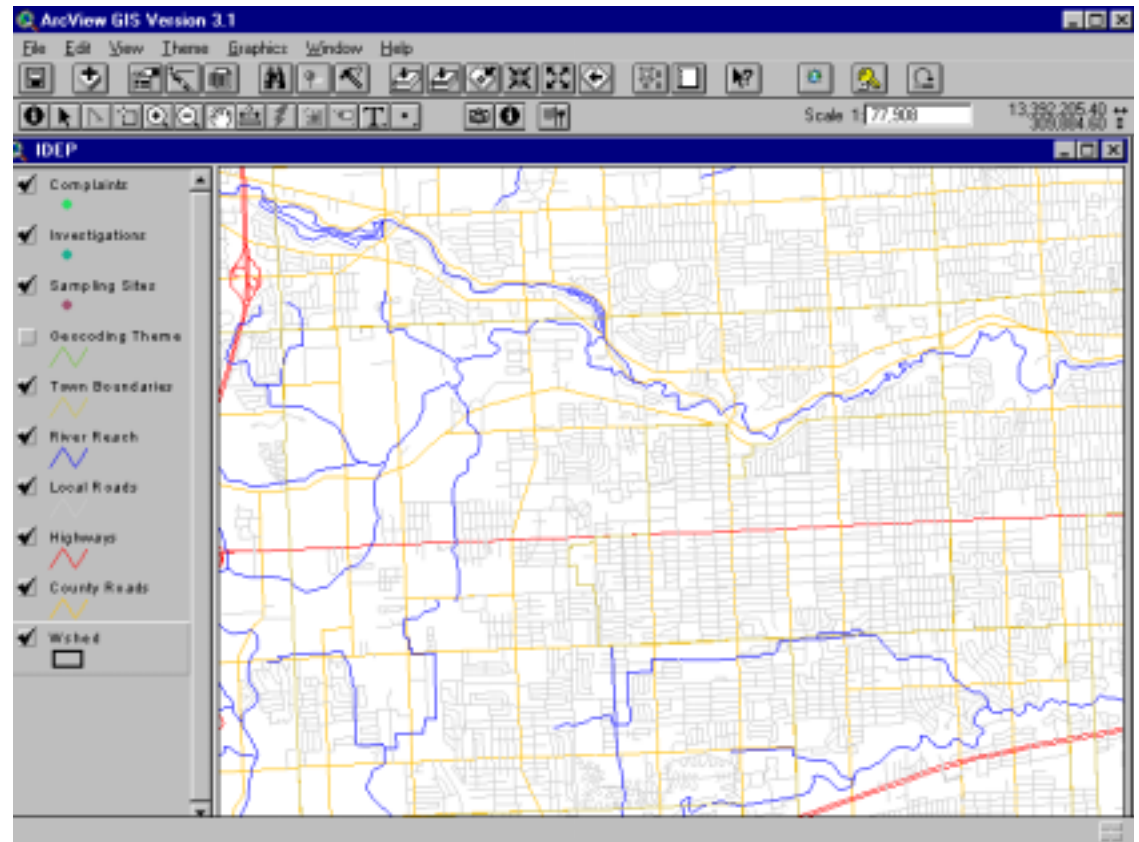
Complaint

Comments

Referred To

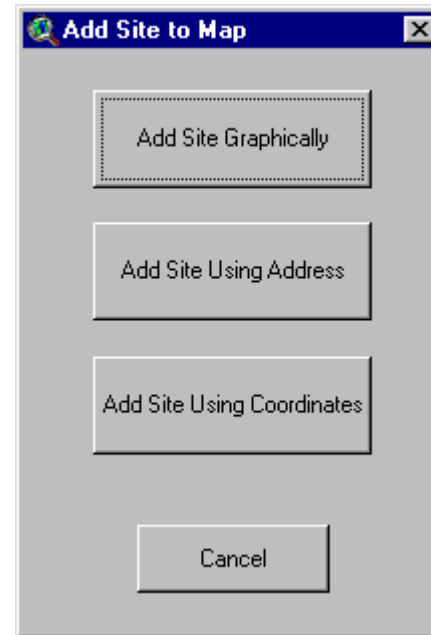
Map

- The Map button opens the corresponding ArcView project



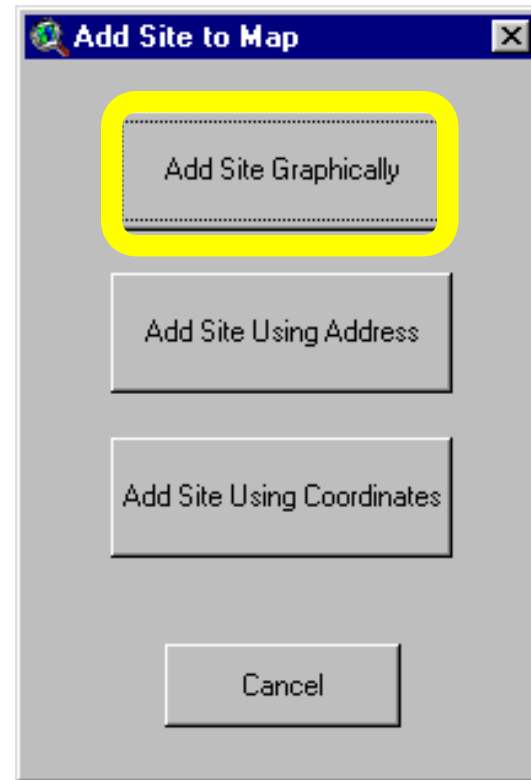
Add to Map

- “Add to Map” button allows the user to add the site to the ArcView project
- Site may be added
 - Graphically
 - Using Address
 - Using Coordinates



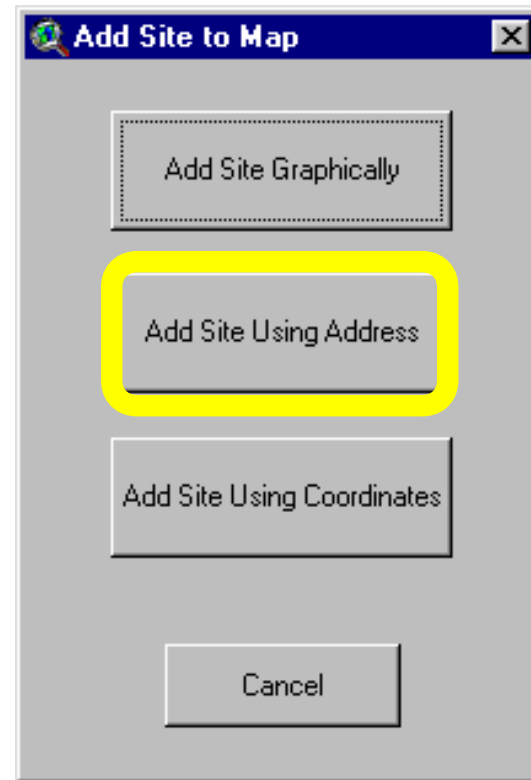
Add to Map - Graphically

- The “Add Site Graphically” button allows the user to accurately enter the location of the complaint without having coordinates or an address



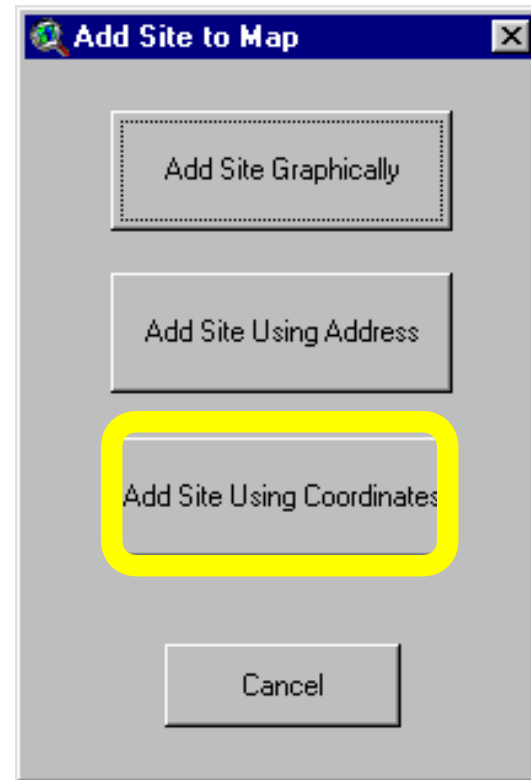
Add to Map - Address

- The “Add Site Using Address” button assigns the location of the complaint based on the street address provided by the user (if geocoding is present)



Add to Map - Coordinates

- The “Add Site Using Coordinates” button assigns the location of the complaint based on the coordinates provided by the user



Investigations Module

- Allows user to store information about investigation
- May link to Complaint
- Gateway to photos, sites and sampling data

Investigation ID 1		Photos	Complaint	Map	Add to Map	Sampling Sites	Sampling Parameters
<i>Investigation</i>							
Description	Livonia - oil in ditch			Complaint No	WS7		
Field Crew	John Smith			Investigation Date	9/10/99		
Community	Livonia	County	Wayne	Receiving Water	Middle Rouge		
Location	Ditch located at intersection of Elm and Oak						
Facility		Facility ID		Facility Type			
Facility Address	1234 Oak			Zip Code	48150		
Field Observations	Oil residue present in ditch.						
Actions Recommended	Clean up spill						
Actions Taken	Called Acme Oil Removers						
Expected Completion	9/10/99	Percent Complete	75	Referred To	MDEQ US EPA Wayne County DO		
Map Coordinates							
<input type="radio"/> Latitude / Longitude	X-Coordinate	Y-Coordinate	Units				
<input checked="" type="radio"/> State Plane	13185000	300000	Feet				
							Add
							Delete
							Edit
							Search
							<< Back

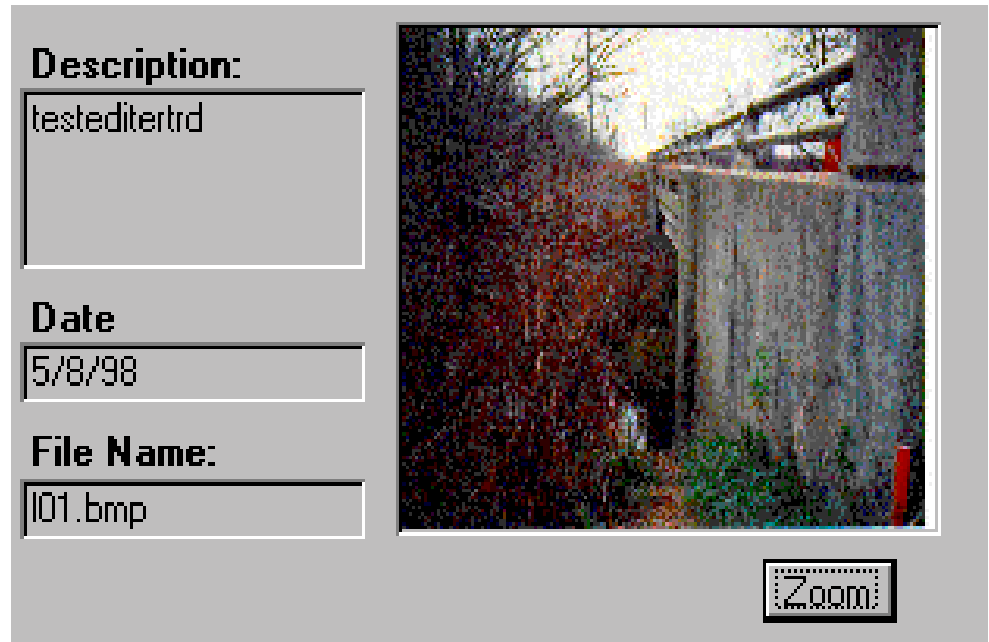
Investigation Module Buttons

- Button Bar
 - Photos
 - Complaint
 - Map
 - Add to Map
 - Sampling Sites
 - Sampling Parameters



Photos

- Photos - allows the user to view and store photos associated with an investigation
- Select Zoom for a larger view



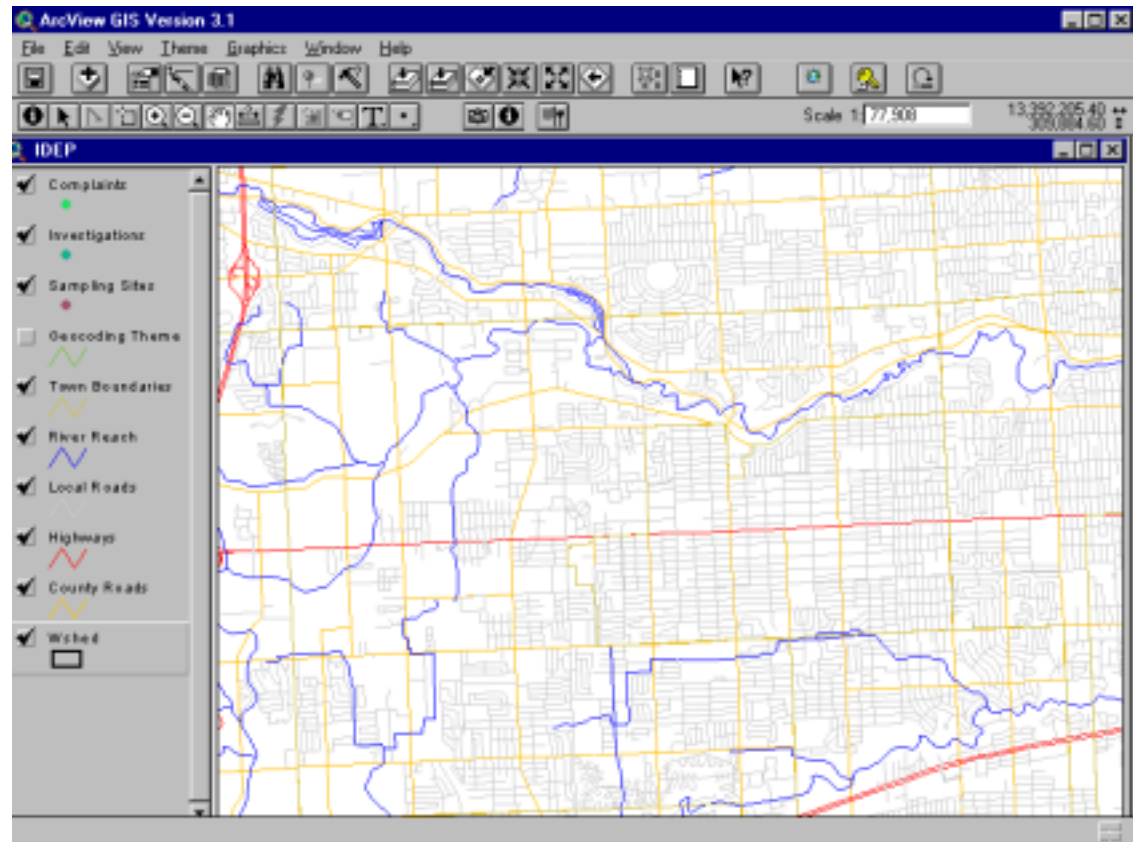
Complaint

- Complaint - brings up the complaint record associated with an investigation

Complaint ID	<input type="text" value="WS7"/>	Map	Add to Map	Add	
Complainant					Delete
Name	<input type="text" value="John Doe"/>	Phone	<input type="text" value="555-1212"/>		
Address	<input type="text" value="123 Oak"/>				
City	<input type="text" value="Livonia"/>	State	<input type="text" value="MI"/>		Edit
Zip Code	<input type="text" value="48000"/>				
Complaint Information				Search	
Type	<input type="text" value="Illegal Dumping"/>	Source	<input type="text" value="Citizen"/>		
Date	<input type="text" value="12/24/99"/>	Time	<input type="text" value="9:30 AM"/>		Back
Hotline No.	<input type="text"/>				
Community	<input type="text" value="Livonia"/>	County	<input type="text" value="Wayne"/>		
Location	<input type="text" value="ditch crossing OakStreet near intersection of Maple"/>				
Complaint	<input type="text" value="barrel of foul smelling liquid in ditch"/>				
Comments	<input type="text"/>				
Referred To	<input type="text"/>				

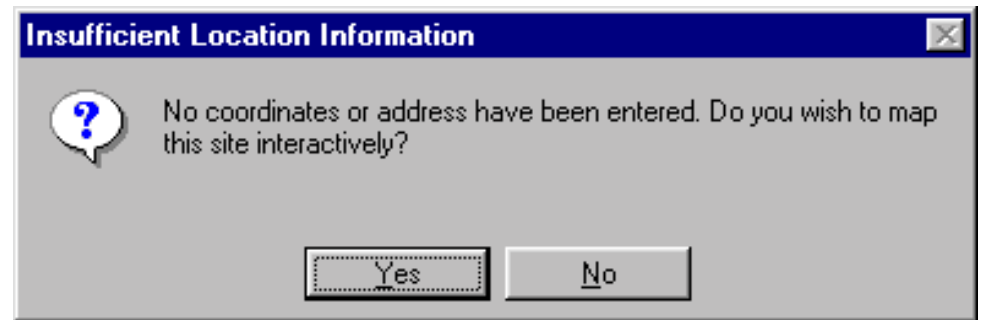
Map

- The Map button displays the ArcView IDEP project
- Same function as on the Complaint Form



Add to Map

- “Add to Map” button allows the user to add the site to the ArcView project
- Site may be added
 - Using Coordinates
 - Using Address
 - Graphically



Sampling Sites

- Sampling Sites - allows the user to enter information about sample collection locations

Investigation

Investigation ID: 1 Complaint ID: WS7

Map Add to Map Data Actions

Site Information

Field ID: 305.1 Connection found:

Location: 7010 Meadowbrook, Canton Township

Description: Manhole Bacteria Study

Community: _____

Sub-area: 2218

Waterbody: Rouge River

Branch: Tonquish

Site Type: [Properties](#)

Related Upstream Sites: 197

Map Coordinates

Latitude / Longitude X-Coordinate: _____ Y-Coordinate: _____ Units:

State Plane

Site Photos

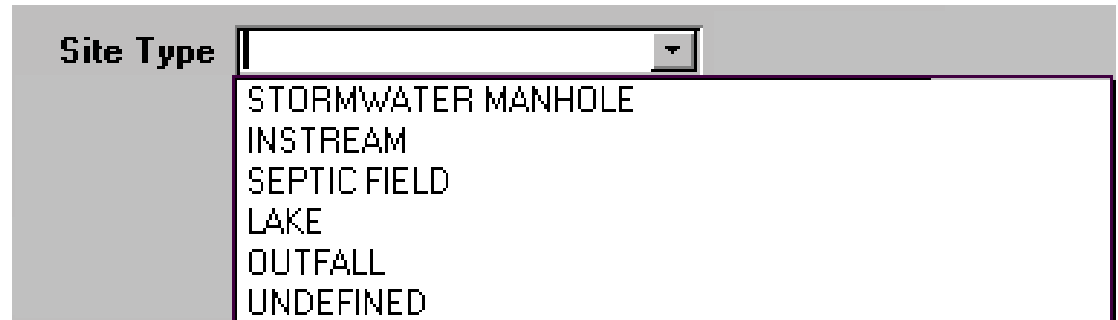
Add Photo

Add Delete Edit Search

<< Back

Sampling Sites

- Site Type Drop Down Menu
 - Stormwater Manhole
 - Instream
 - Septic Field
 - Lake
 - Outfall
 - Undefined
- Menu may be modified



The image shows a screenshot of a software interface. On the left, the text 'Site Type' is displayed in a bold, black font. To its right is a dropdown menu with a white background and a thin black border. The menu is currently open, showing a list of six options: 'STORMWATER MANHOLE', 'INSTREAM', 'SEPTIC FIELD', 'LAKE', 'OUTFALL', and 'UNDEFINED'. Each option is listed on a new line. The dropdown menu has a small downward-pointing arrow on its right side, indicating it is a selection menu.

Sampling Sites

- Property form if site type is outfall

Investigation	
Investigation ID: 1	Complaint ID: WS7
Site	
Field ID 305.1	Location 7010 Meadowbrook, Canton Township
Outfall Properties	
OutFall Number <input type="text"/>	Section Number <input type="text"/>
Location Number <input type="text"/>	Quarter Section Number <input type="text"/>
Outfall type <input type="text" value="CSO"/>	Inside height (in.) <input type="text"/>
Outfall Shape <input type="text" value="Round"/>	Inside width (in.) <input type="text"/>
Outfall face type <input type="text" value="Flared End"/>	Receiving water <input type="text"/>
Material Type <input type="text" value="Corrugated Metal"/>	Owner <input type="text"/>
<input type="button" value="Add"/> <input type="button" value="Delete"/> <input type="button" value="Edit"/> <input type="button" value="Search"/> <input type="button" value=" << Back"/>	

Sampling Sites

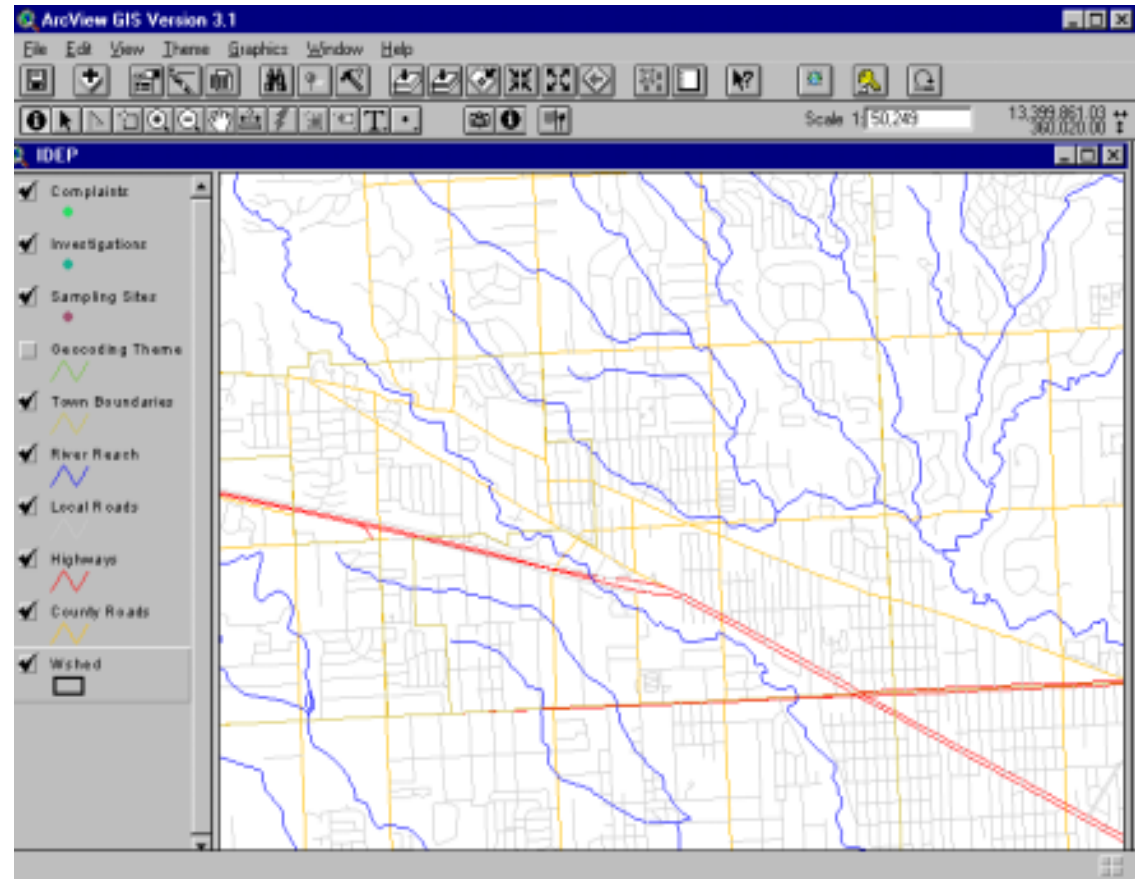
Sampling Sites Buttons

- Map
- Add to Map
- Data
- Actions



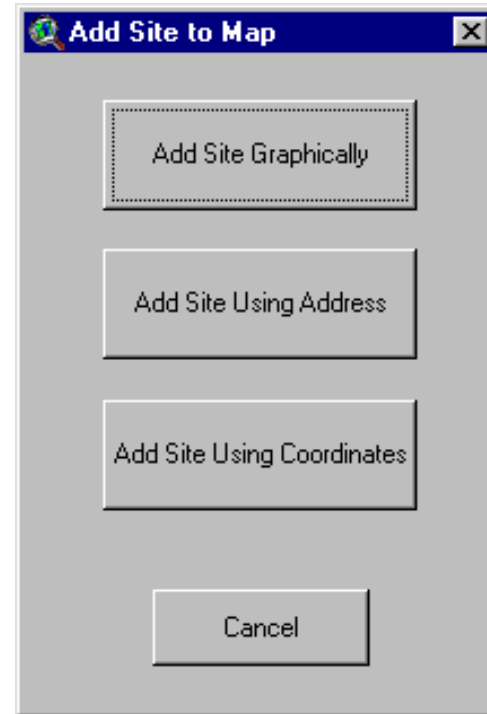
Sampling Sites - Map

- The Map button opens the corresponding ArcView project
- Same function as on the Complaint and Investigation Forms



Add to Map

- “Add to Map” button allows the user to add the site to the ArcView project
- Site may be added
 - Using Coordinates
 - Graphically



Sampling Sites - Data

- Measured Sample Results - Sampling data may be stored and reviewed

Investigation
Investigation ID: 1 Complaint ID: WS7

Site
Field ID: 305.1 Location: 7010 Meadowbrook, Canton Township

Sample Results

Measured Observed

Sample ID	Sample Date	Sample Time
1244	5/5/95	2:02 AM

pH	Total Organic Nitrogen	Ammonia
= 4 UNKNOWN	= 3 UNKNOWN	=
Alkalinity (as Caco3)	Air Temperature	E. Coliform
=	=	=
Ag_xrf	Aldrin	Alpha-bhc
=	=	=
Total Aluminum	Anionic Surfactant Test (5540)	
=	=	

Sampling Sites - Data

- Observed Sample Results - Sampling observations may be stored and reviewed

<i>Investigation</i>			
Investigation ID: 1	Complaint ID: WS7		
<i>Site</i>			
Field ID	305.1	Location	7010 Meadowbrook, Canton Township
<i>Sample Results</i>			
Measured	Observed		
	Sample ID	Sample Date	Sample Time
	1244	5/5/95	2:02 AM
Outfall Discharging	Estimated Flow Rate	Odor	Color
YES	SLOW	SULFIDE	YELLOW
Turbidity	Floatables	Deposits Or Stains	
CLOUDY	NONE	SEDIMENT	

Sampling Sites - Actions

- Actions - allows user to record and view what actions were taken at sampling sites

<i>Investigation</i>	
Investigation ID: 1	Complaint ID: WS7
<i>Site</i>	
Field ID <input type="text" value="305.1"/>	Location <input type="text" value="7010 Meadowbrook, Canton Township"/>
<i>Actions</i>	
Name	<input type="text" value="Canton Sampling"/>
Description	<input type="text" value="Sampling for E. coli, TSS, and BOD"/>
Action Type	<input type="text" value="Sampling"/>
Date	<input type="text" value="9/24/99"/>

Sampling Parameters

- Measured Sampling Parameters - allows user to store and review measured sampling parameters

Investigation
Investigation ID: 1 Complaint ID: WS7

Sampling Parameters

Available Parameters:

- 1-BUTANOL
- 1-PROPANOL
- 11_2CL_ETHAN
- 11_2CL_ETHYL
- 111_3CL_ETHN
- 112_3CL_ETHN
- 1122_4CL_ETH
- 12_2CL_BENZ
- 12_2CL_ETHAN
- 12_2CL_PROPA
- 12_2PHN_HYDZ
- 12_T_2CL_ETH

> <

Selected Parameters:

- Ag_XRF
- AIRTEMP
- ALDRIN
- ALK
- ALPHA_BHC
- ALUM T
- E_COLI
- NH3
- pH
- SURFACTANT
- TON

Measured Parameters Observed Parameters

View by Long Description

Cancel OK

Sampling Parameters

- Observed Sampling Parameters - Allows user to store and view observed sampling parameters
- View by Long Description - written description of parameters

Investigation
Investigation ID: 1 Complaint ID: WS7

Sampling Parameters

Available Parameters:

- Color
- Deposits Or Stains
- Estimated Flow Rate
- Floatables
- Odor
- Outfall Discharging
- Turbidity

Selected Parameters:

- Color
- Deposits Or Stains
- Estimated Flow Rate
- Floatables
- Odor
- Outfall Discharging
- Turbidity

Measured Parameters Observed Parameters

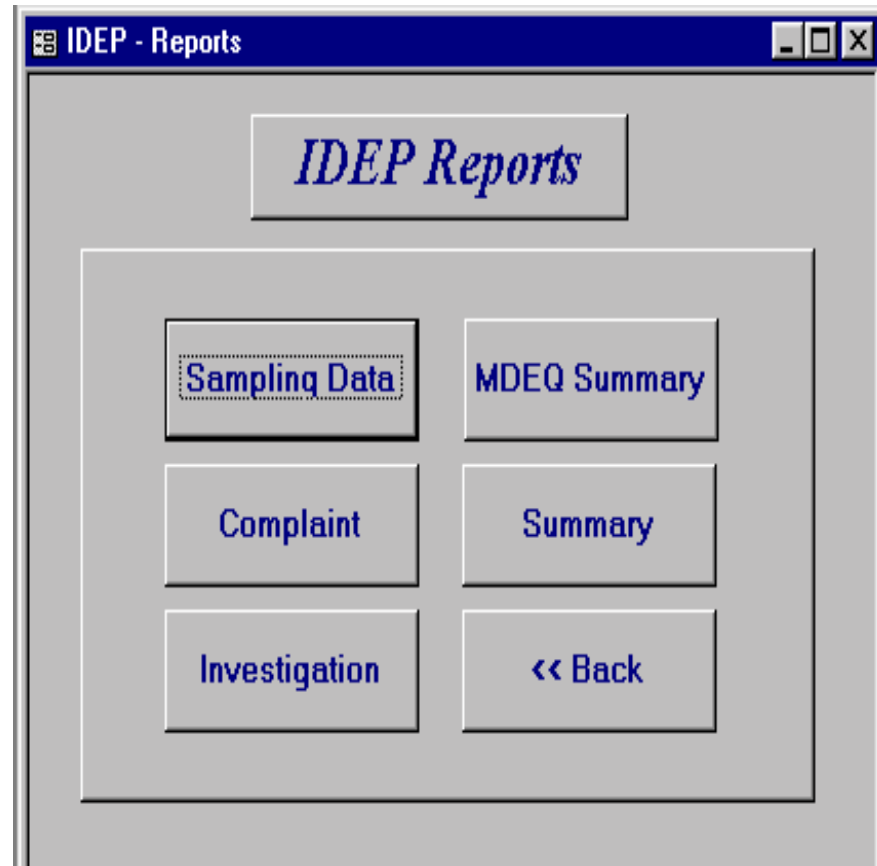
View by Long Description

Cancel OK

Reports

IDEP Report Options

- Sampling Data
- Complaint
- Investigation
- MDEQ Summary
- Summary



Sampling Data Report

- User selects investigation, site, parameters, and qualifying values

The screenshot shows a web-based application window titled "Sampling Data Report". The interface includes several input fields and controls:

- Investigation(s)**: A dropdown menu.
- Community(s)**: A dropdown menu.
- Site(s)**: A dropdown menu.
- Where**: A section containing:
 - Parameter**: A dropdown menu.
 - Operator**: Three buttons labeled \geq , $=$, and \leq .
 - Value**: A text input field.
- Checkboxes**: Three checkboxes labeled "All Investigations", "All Communities", and "All Sites", all of which are checked.
- Table**: A large empty table with a header row and a scrollable body.
- Count**: A label "Count: 0" at the bottom left of the table area.
- Buttons**: Four buttons at the bottom: "Preview", "Print", "Print with actions", and "<< Back".

Exercise 1- Functionality

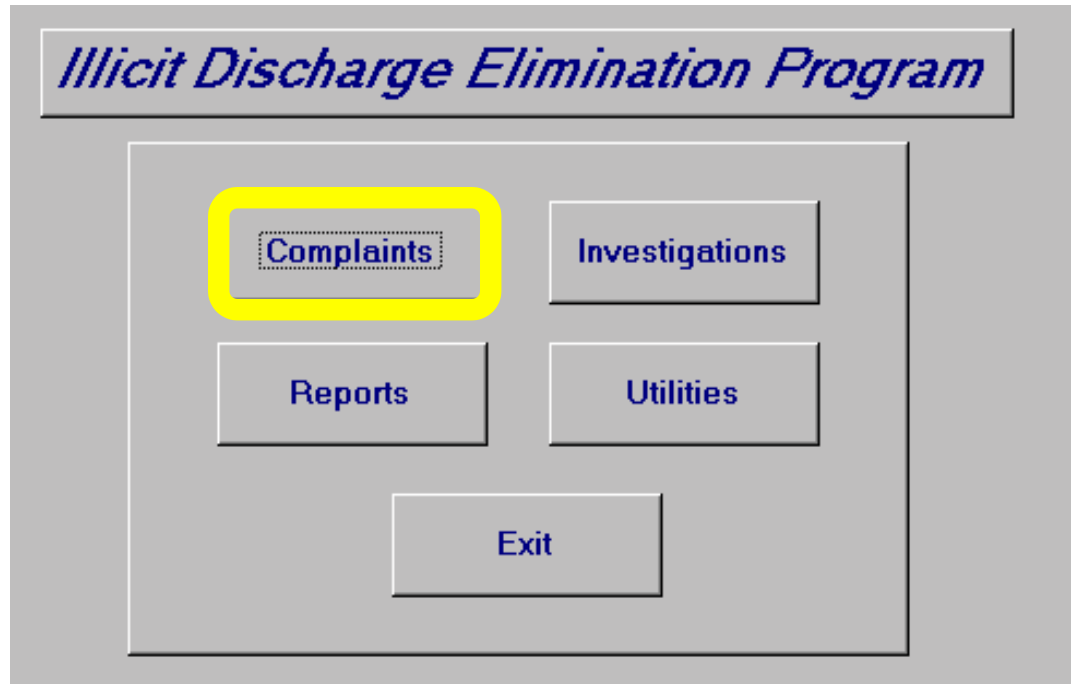
In this exercise the user will work with complaints, investigations, and reports. The user will complete the complaint form based on the information provided. The user will add a sampling site with associated sampling parameters as part of the investigation. The user will then view the collected data in the sampling data report format.

Exercise 1 - Functionality (cont.)

A typical application for IDEP would be to enter details about a complaint received from a citizen about an outfall discharging an unknown liquid. Details about the investigation and the sampling performed at other locations will also be entered.

Main Menu

- Select Complaints at the Main Menu



Complaint

- The Complaint Form will appear on the screen
- Select Add on the Main tool bar to create a new complaint record

Complaint ID

Complaintant

Name Phone

Address

City State Zip Code

Complaint Information

Type Source

Date Time Hotline No.

Community County

Location

Complaint

Comments

Referred To

Complaint Form

- A new record will be created
- Available fields are white
- The Complaint ID is the unique identifier for this complaint

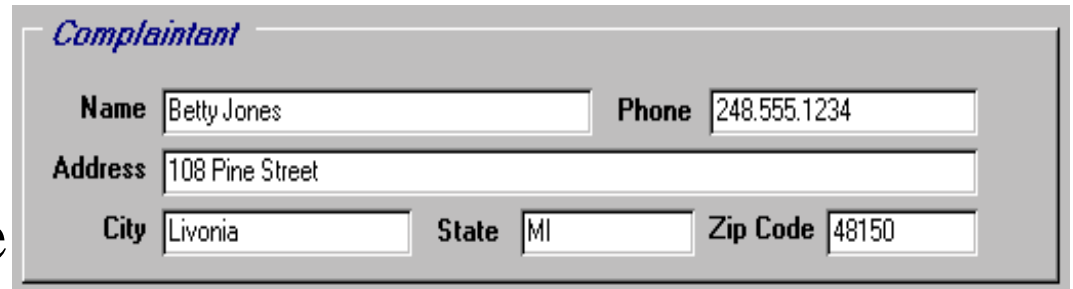
The screenshot shows a web-based form titled "Complaint". At the top, the "Complaint ID" field contains the text "WS7" and is highlighted with a yellow border. Below this, the form is organized into sections:

- Complainant:** Includes fields for Name, Phone, Address, City, State, and Zip Code.
- Complaint Information:** Includes dropdown menus for Type and Source, and input fields for Date, Time, Hotline No., Community, and County.
- Location:** A large text area for describing the location.
- Complaint:** A large text area for describing the complaint.
- Comments:** A large text area for additional comments.
- Referred To:** A dropdown menu currently showing "MDEQ" and "US EPA" as options.

On the right side of the form, there are two buttons: "Save" and "Cancel".

Complainant Section

- Begin by entering the information about the complainant in the complainant section of the form
 - Betty Jones
 - 248.555.1234
 - 108 Pine Street
 - Livonia, MI 48150



Complainant

Name	Betty Jones	Phone	248.555.1234
Address	108 Pine Street		
City	Livonia	State	MI
Zip Code	48150		

Complaint

Enter Complaint

- Type: Unknown Liquid
- Source: Citizen
- Date: 12/29/99
- Time: 9:00am
- Community: Livonia
- County: Wayne
- Location: Pine Street Outfall at Rouge River
- Complaint: Foul smelling unknown liquid discharging from outfall
- Comment: No recent rain
- Referred to: Wayne County DOE

Complaint Information

Type	Unknown Liquid	Source	Citizen		
Date	12/29/99	Time	9:00 AM	Hotline No.	
Community	Livonia	County	Wayne		
Location	Pine Street Outfall at Rouge River (near intersection of Tamarack and Pine)				
Complaint	Foul smelling unknown liquid discharging from outfall				
Comments	no recent rain				
Referred To	Wayne County DOE	Other			

Complaint Form

- Select Save when complete to store record

Complaint

Complaint ID

Complainant

Name Phone

Address

City State Zip Code

Complaint Information

Type Source

Date Time Hotline No.

Community County

Location

Complaint

Comments

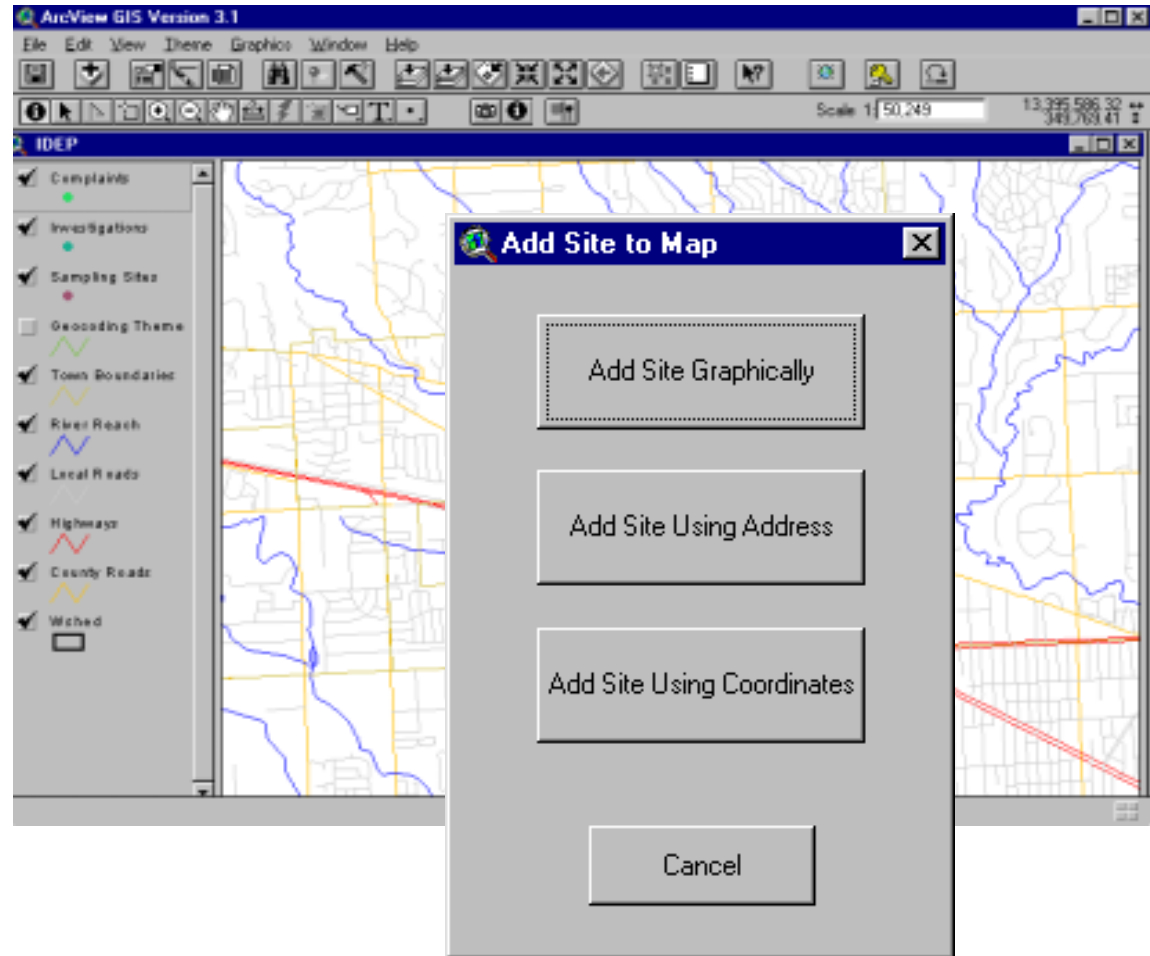
Referred To

Save

Cancel

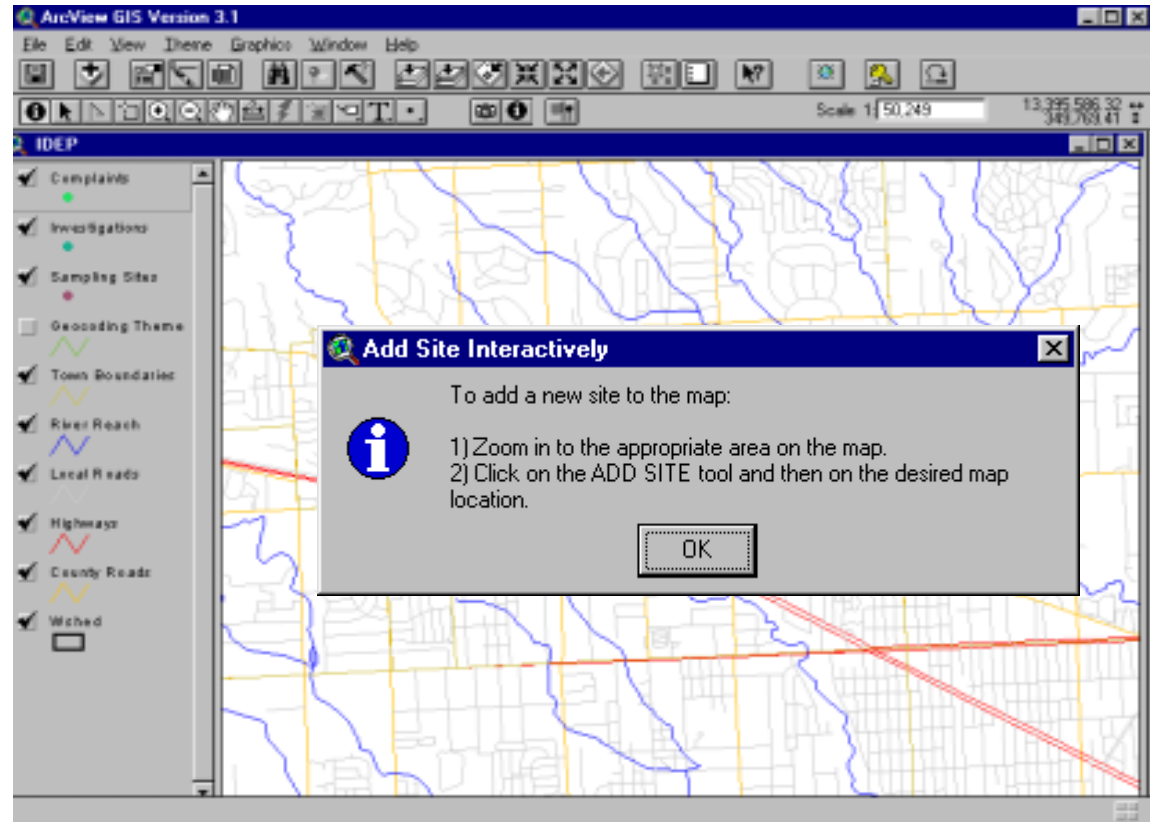
Add to Map - Graphically

- Select “Add to Map” to locate complaint on project map
- The ArcView project will open displaying the add site method dialog
- Select “Add Site Graphically”



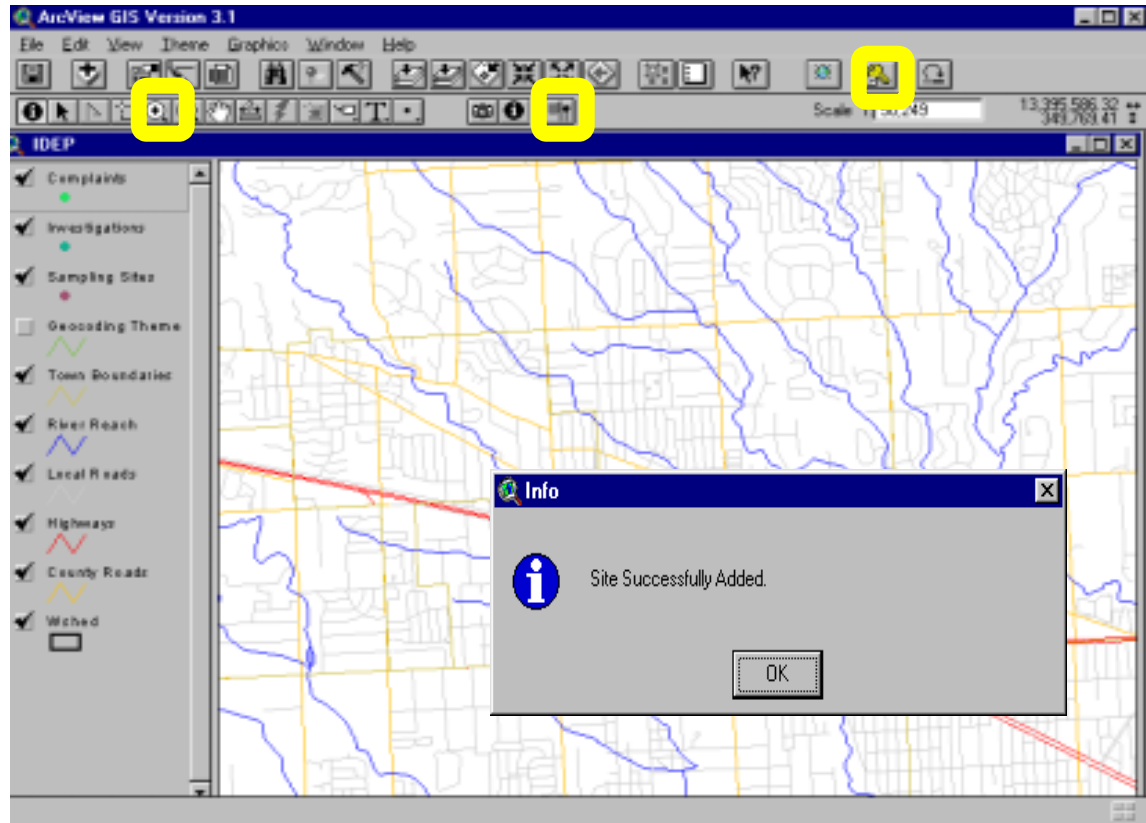
Add to Map - Graphically

- Add Site Interactively message box will appear
- Click “OK”



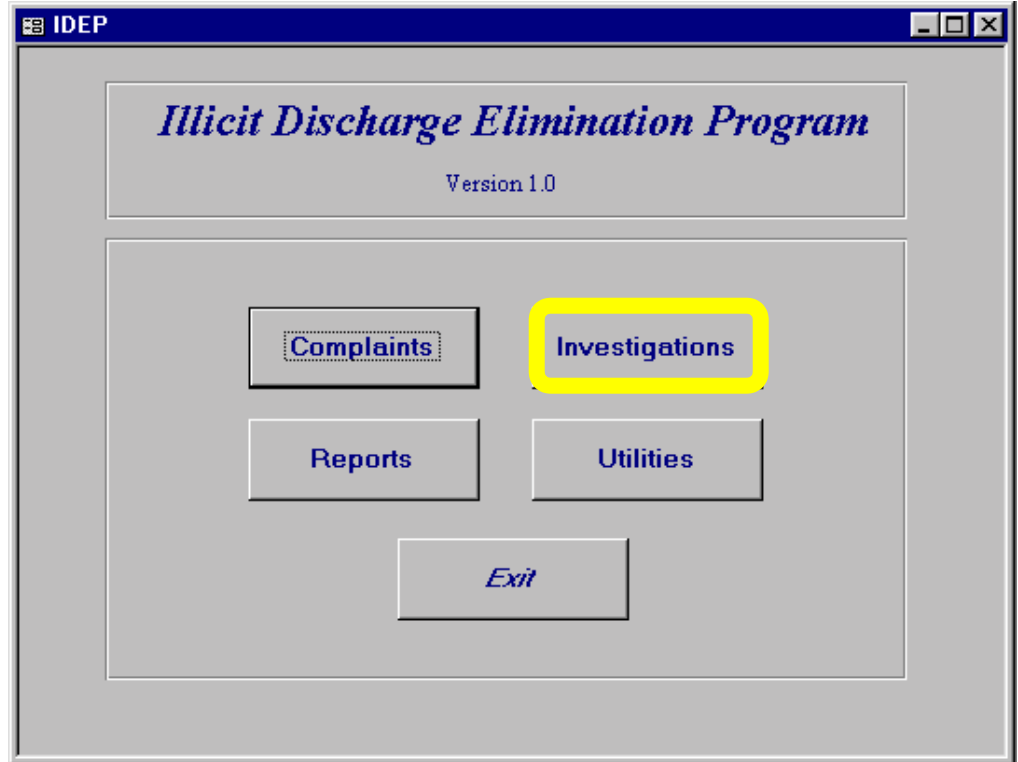
Add to Map - Graphically

- Zoom into the area of the complaint using the zoom tool
- use “Add Site” tool to select the location of the complaint
- “Site Successfully Added” info screen appears and site is present
- Select “Access” button to return to IDEP



Investigations

- Select Investigations on the Main Menu to begin entering details about the Investigation



Investigation

- The investigation form will appear on the screen
- Select Add to enter a new investigation

Investigation ID 1		Photos	Complaint	Map	Add to Map	Sampling Sites	Sampling Parameters
<i>Investigation</i>							
Description	Livonia - oil in ditch		Complaint No	WS7			
Field Crew	John Smith		Investigation Date	12/26/99			
Community	Livonia	County	Wayne	Receiving Water	Middle Rouge		
Location	Ditch located at intersection of Elm and Oak						
Facility		Facility ID		Facility Type			
Facility Address	1234 Oak			Zip Code	48150		
Field Observations	Oil residue present in ditch.						
Actions Recommended	Clean up spill						
Actions Taken	Called Acme Oil Removers						
Expected Completion	9/10/99	Percent Complete	75	Referred To	MDEQ US EPA Wayne County DO		
Map Coordinates							
<input type="radio"/> Latitude / Longitude	X-Coordinate	Y-Coordinate	Units				
<input checked="" type="radio"/> State Plane	13185000	300000	Feet				
							Add
							Delete
							Edit
							Search
							<< Back

Investigation

- A blank investigation form will appear on the screen
- White fields are available
- Unique Investigation ID assigned to record

The screenshot displays the 'Investigations' software window. The title bar reads 'Investigations'. Below the title bar is a navigation menu with buttons for 'Photos', 'Complaint', 'Map', 'Add to Map', 'Sampling Sites', and 'Sampling Parameters'. The main area is titled 'Investigation' and contains a form with the following fields:

- Investigation ID:** WS4
- Description:** Text input field
- Field Crew:** Text input field
- Community:** Text input field
- County:** Text input field
- Receiving Water:** Text input field
- Location:** Text input field
- Facility:** Text input field
- Facility ID:** Text input field
- Facility Type:** Dropdown menu (currently set to 'Unknown')
- Facility Address:** Text input field
- Zip Code:** Text input field
- Field Observations:** Text input field
- Actions Recommended:** Text input field
- Actions Taken:** Text input field
- Pollutant of Concern:** Text input field
- Completion Date:** Text input field
- Percent Complete:** Text input field
- Map Coordinates:** Radio buttons for 'Latitude / Longitude' and 'State Plane'. Below are 'X-Coordinate' and 'Y-Coordinate' text input fields, and a 'Units' dropdown menu (currently set to 'Unknown Units').
- Referred To:** A list box containing 'MDEQ', 'US EPA', 'Wayne County DOI', and 'Other'.

On the right side of the form, there are two buttons: 'Save' and 'Cancel'.

Investigation

Enter Information about Investigation

- Description: Pine Street outfall discharge
- Complaint No.: Use ex. complaint id
- Field Crew: Tony and Bill
- Investigation Date: 12/29/99
- Community: Livonia
- County: Wayne
- Receiving Water: Rouge
- Location: Pine Street outfall at Rouge
- Field Observations: foul smelling unknown liquid discharging from outfall
- Actions Recommended: sampling at outfall and at site upstream
- Actions Taken: Sampling at outfall and upstream
- Pollutant of Concern: bacteria
- Referred to: Wayne County DOE
- Completion Date: 12/29/99
- Percent Complete: 100

Investigation

- Link to Complaint
- Select “Save” when complete

Investigations

Investigation ID WS4 Photos Complaint Map Add to Map Sampling Sites Sampling Parameters

Investigation

Description Pine Street outfall discharge Complaint No WS7

Field Crew Tony and Bill Investigation Date 12/29/99

Community Livonia County Wayne Receiving Water Rouge

Location Pine Street Outfall at Rouge (near intersection of Tamarack and Pine)

Facility Facility ID Facility Type Unknown

Facility Address Zip Code

Field Observations foul smelling unknown liquid discharging from outfall

Actions Recommended sampling at outfall and at site upstream

Actions Taken sampling at outfall and upstream

Pollutant of Concern bacteria Referred To MDEQ
US EPA
Wayne County DO
Other

Completion Date 12/29/99 Percent Complete 100

Map Coordinates

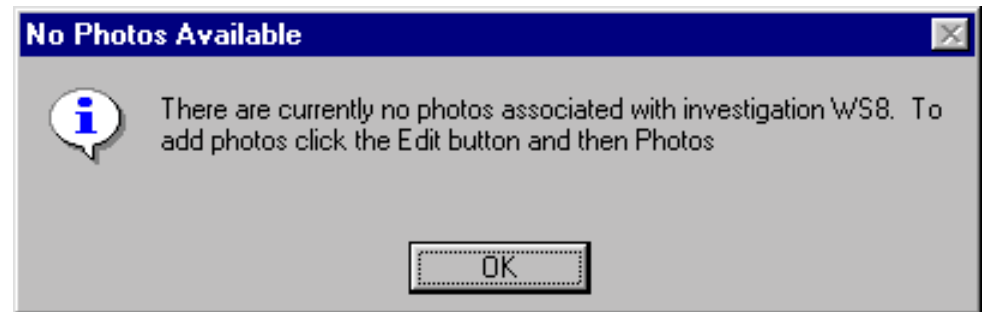
Latitude / Longitude X-Coordinate Y-Coordinate Units Unknown Units

State Plane

Save Cancel

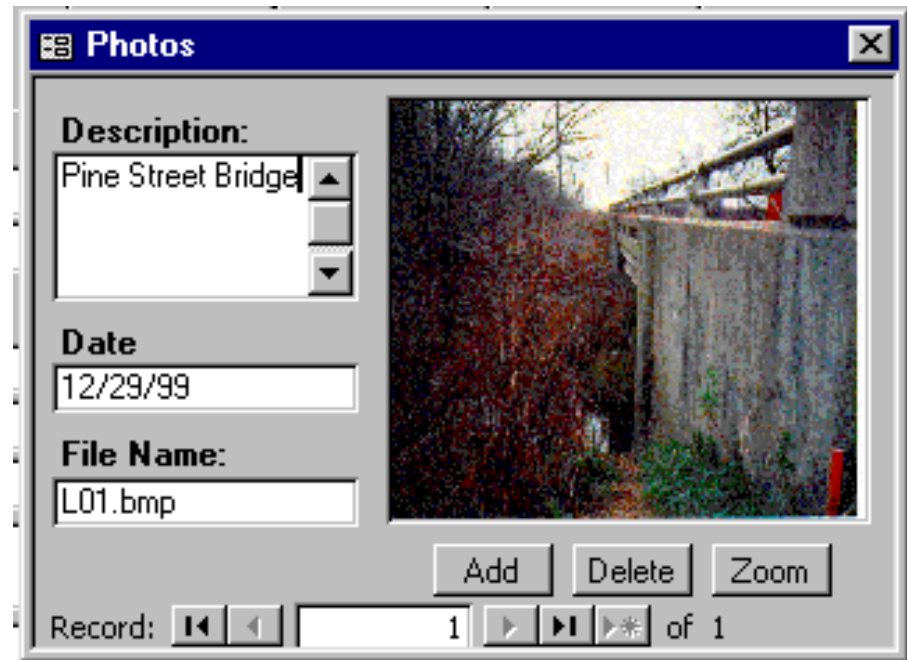
Investigation - Photo

- Select Edit
- Select the Photos button to add photos from the investigation
- Select “OK” to add the photo
- Photo must be saved in “photos” subdirectory



Investigation - Photo

- Photo Information
 - Description: Pine Street Bridge
 - Date: 12/29/99
 - File Name: L01.bmp
- Select “Save”
- Close Photos box
- Select “Save” at Investigation Module



Investigation - Complaint

- Selecting the “Complaint” button displays a screen indicating which complaint the investigation is linked to
- Select “Back” to return to Investigation

Complaint

Complaint ID:

Complainant

Name: Phone:

Address:

City: State: Zip Code:

Complaint Information

Type: Source:

Date: Time: Hotline No.:

Community: County:

Location:

Complaint:

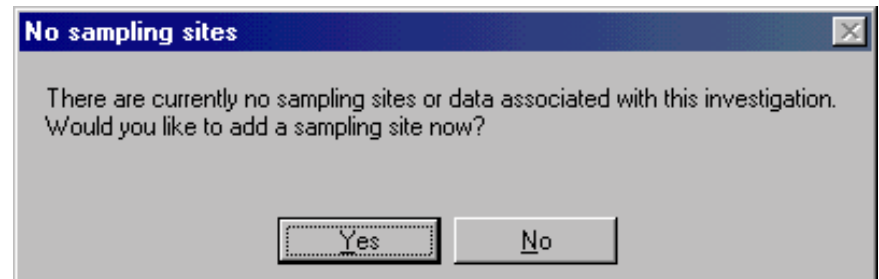
Comments:

Referred To:

Record: 1 of 1 (Filtered)

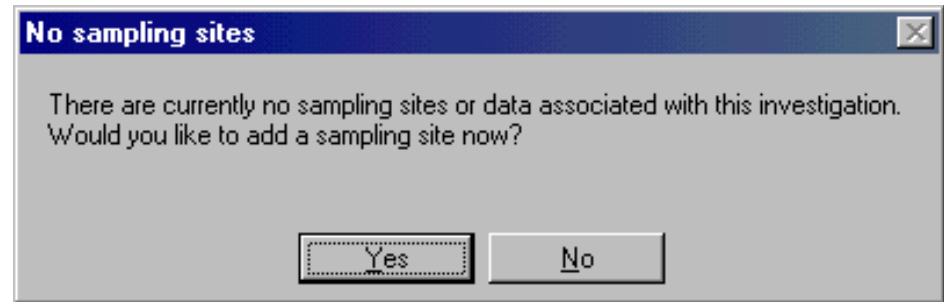
Investigation - Sampling Sites

- Select the “Sampling Sites” button to enter information about the sampling performed at other sites as part of the investigation
- Select “Yes” to continue



Investigation - Sampling Sites

- A new sampling site will be added



Investigation - Sampling Sites

- Enter Details about Sampling Site
 - Field ID: 108
 - Location: 158 Pine
 - Description: outfall from Pinewood Estates
 - Community: Livonia
 - Waterbody: Rouge
 - Site Type: outfall
- Select “Save”

The screenshot displays the IDEP - Illicit Discharge Elimination Program software interface. The window title is "IDEP - Illicit Discharge Elimination Program". The menu bar includes "File", "Edit", "Insert", "Records", "Window", and "Help". The main form is titled "Sampling Sites" and contains the following fields and controls:

- Investigation**: Investigation ID: WS4, Complaint ID: WS7, and a "Map" button.
- Site Information**:
 - Field ID: 108
 - Location: 158 Pine
 - Description: outfall from Pinewood Estates Area
 - Community: Livonia
 - Sub-area: (empty)
 - Waterbody: Rouge
 - Branch: (empty)
 - Site Type: OUTFALL (dropdown menu)
 - Connection found:
- Site Photos**: A large empty area with an "Add Photo" button.
- Map Coordinates**:
 - Latitude / Longitude:
 - State Plane:
 - X Coordinate:
 - Y Coordinate:
 - Units: Unknown Units (dropdown menu)
- Related Upstream Sites**:
- Buttons**: "Save" (highlighted in yellow) and "Cancel".
- Properties**: A button located near the Site Type dropdown.

At the bottom of the window, there is a "Form View" label and a "FLTR" button.

Investigation - Sampling Sites

- Properties form available for Outfall Site Type
- Select “Properties” box
- Select “Edit”

The screenshot shows a software interface titled "Sampling Sites". At the top, it displays "Investigation ID: W57" and "Complaint ID: W54". Below this are buttons for "Map", "Add to Map", "Data", and "Actions". The main section is titled "Site Information" and contains several input fields: "Field ID" (108), "Location" (158 Pine), "Description" (outfall from Pinewood Estates), "Community" (Livonia), "Sub-area", "Waterbody" (Rouge), and "Branch". A "Connection found" checkbox is also present. To the right of these fields is a "Site Photos" section with an "Add Photo" button. Below the "Site Information" section is a "Site Type" dropdown menu set to "OUTFALL", with a "Properties" button highlighted in yellow next to it. Further down are "Map Coordinates" options: "Latitude / Longitude" (selected) and "State Plane", along with "X-Coordinate", "Y-Coordinate", and "Units" (Unknown Units). On the right side of the form, there is a vertical column of buttons: "Add", "Delete", "Edit", "Search", and "Back". At the bottom, a status bar shows "Record: 1 of 1 (Filtered)".

Investigation - Sampling Sites

- Complete the fields
 - Outfall Number 163A
 - Outfall Type: CSO
 - Outfall Shape: Round
 - Material Type: White PVC
 - Section Number 21
 - Quarter Section Number 4
 - Inside height (in) 12
 - Receiving Water: Rouge River
 - Owner: Private
- Select “Save”
- Select “Back” to return to Investigations Module

Outfall Properties

Investigation
Investigation ID: WS4 Complaint ID: WS7

Site
Field ID 108 Location 158 Pine


Outfall Properties

Outfall Number	163A	Section Number	21
Location Number		Quarter Section Number	4
Outfall type	CSO	Inside height (in.)	12
Outfall Shape	Round	Inside width (in.)	
Outfall face type		Receiving water	Rouge River
Material Type	White PVC	Owner	private

Save
Cancel

Investigation - Sampling Parameters

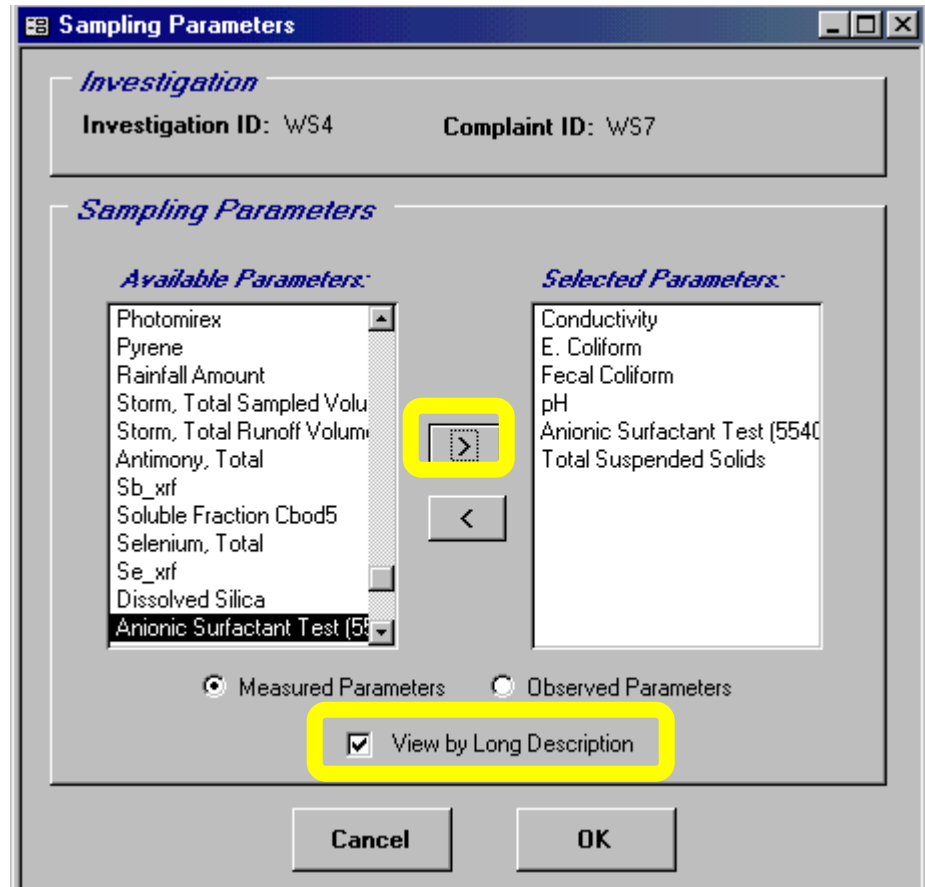
- The sampling parameters are divided into measured and observed parameters
- The parameters are viewable in either the abbreviated format or by long description



A screenshot of a dialog box with a grey background. At the top, there are two radio buttons: "Measured Parameters" (unselected) and "Observed Parameters" (selected). Below them is a checkbox labeled "View by Long Description" which is currently unchecked. At the bottom, there are two buttons: "Cancel" on the left and "OK" on the right.

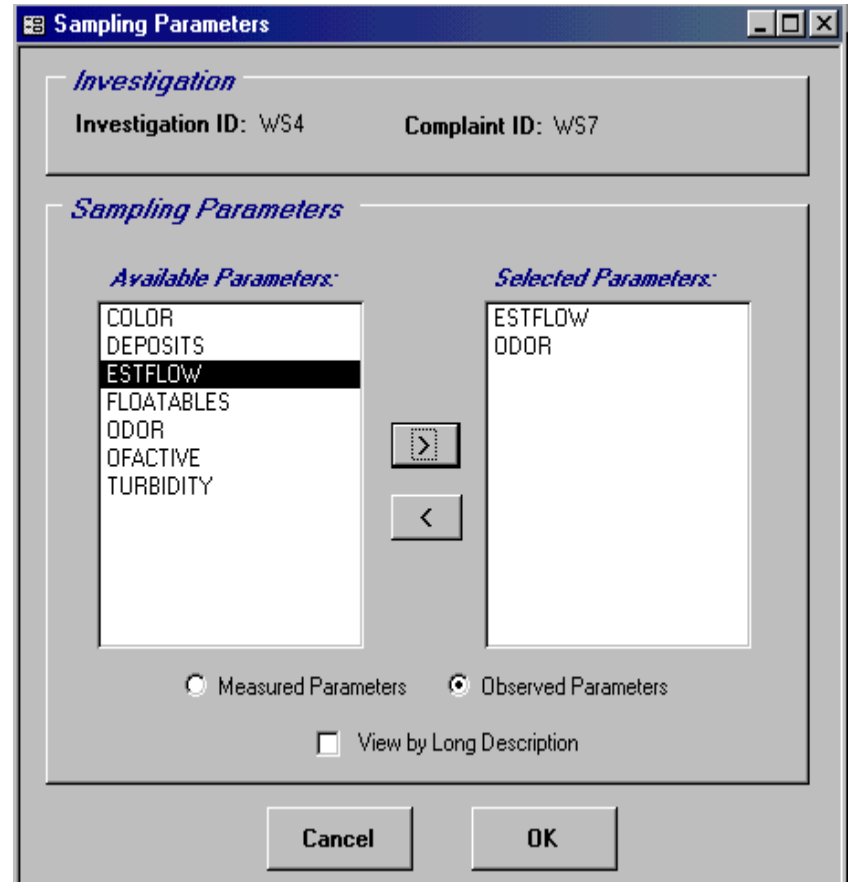
Investigation - Sampling Parameters

- View by Long Description
- Select the Measured Parameters by using the selection tool
 - Conductivity
 - E. Coliform
 - Fecal Coliform
 - pH
 - Anionic Surfactant Test
 - Total Suspended Solids



Investigation - Sampling Parameters

- Switch to Observed Parameters Tab
- Turn off View by Long Description
- Select the Observed Parameters by using the selection tool
 - ESTFLOW
 - ODOR
- Select OK when complete



Investigation - Sampling Parameters

- You should be back at the Investigation Form
- Select Sampling Sites to enter sampling data

IDEP - Illicit Discharge Elimination Program

File Edit Insert Records Window Help

Investigations

Investigation ID WS1 Photos Complaint Map Add to M Sampling Sites Sampling Parameters

Investigation

Description Complaint No

Field Crew Investigation Date

Community County Receiving Water

Location

Facility Facility ID Facility Type

Facility Address Zip Code

Field Observations

Actions Recommended

Actions Taken

Pollutant of Concern Referred To

Completion Date Percent Complete

Map Coordinates

Latitude / Longitude X-Coordinate Y-Coordinate Units

State Plane

Record: 1 of 4

Investigation Description NUM

Sampling Sites - Data

- Select Data from the sampling sites tool bar
- IDEP will ask you to enter data for the site if none is present
- Select “Yes” to continue



Sampling Sites - Data

- The “Update Sampling Data” form will appear
- Fields present for parameters selected
- Measured and observed parameters separated

The screenshot displays the 'Update Sampling Data' form within the IDEP - Illicit Discharge Elimination Program. The form is organized into several sections:

- Investigation:** Contains fields for 'Investigation ID: W54' and 'Complaint ID: W57'.
- Site:** Contains fields for 'Field ID: T08' and 'Location: TSS Pipe'.
- Sample Results:** This section is divided into 'Measured' and 'Observed' tabs. It includes a table for recording data:

Sample ID	Sample Date	Sample Time

Below the table, there are six parameter fields, each with a dropdown menu and a text input field:
 - pH: UNKNOWN
 - Conductivity: UNKNOWN
 - E. Coliform: UNKNOWN
 - Fecal Coliform: UNKNOWN
 - Total Suspended Solids: UNKNOWN
 - Anionic Surfactant Test (5540): UNKNOWN

On the right side of the form, there are 'Save' and 'Cancel' buttons. The status bar at the bottom indicates 'Form View' and 'MM'.

Sampling Sites - Data

Enter the measured data

- Sample Id: 991229-PINE
- Sample Date: 12/29/199
- Sample Time: 11:00AM
- pH: 7.2 pH units
- Conductivity: 0.56 UMHO/cm
- E. Coliform: 1200 #/100 ml
- Fecal Coliform: 1000 #/100 ml
- Total Suspended Solids: 5 mg/L
- Surfactant Test: 18 mg/L

Switch to Observed Tab

Update Sampling Data

Investigation
Investigation ID: WS4 Complaint ID: WS7

Site
Field ID: 108 Location: 158 Pine

Sample Results
Measured Observed

Sample ID	Sample Date	Sample Time
991229-PINE	12/29/1999	11:00 AM

pH	Conductivity	E. Coliform
= 7.2 pH	= 0.56 UMHO/CM	= 1200 #/100 ML
Fecal Coliform	Total Suspended Solids	Anionic Surfactant Test [5540]
= 1000 #/100 ML	= 5 MG/L	= 18 MG/L

Sampling Sites - Data

- Enter the observed data
 - Sample Id: 991229-PINE
 - Sample Date: 12/29/199
 - Sample Time: 11:00AM
 - Odor: Sewage
 - Estimated Flow Rate: Slow
- Select Save
- Fields will be gray indicating saved
- Select “Back” until you return to Main Menu

Update Sampling Data

Investigation

Investigation ID: WS4 Complaint ID: WS7

Site

Field ID: 108 Location: 158 Pine

Sample Results

Measured Observed

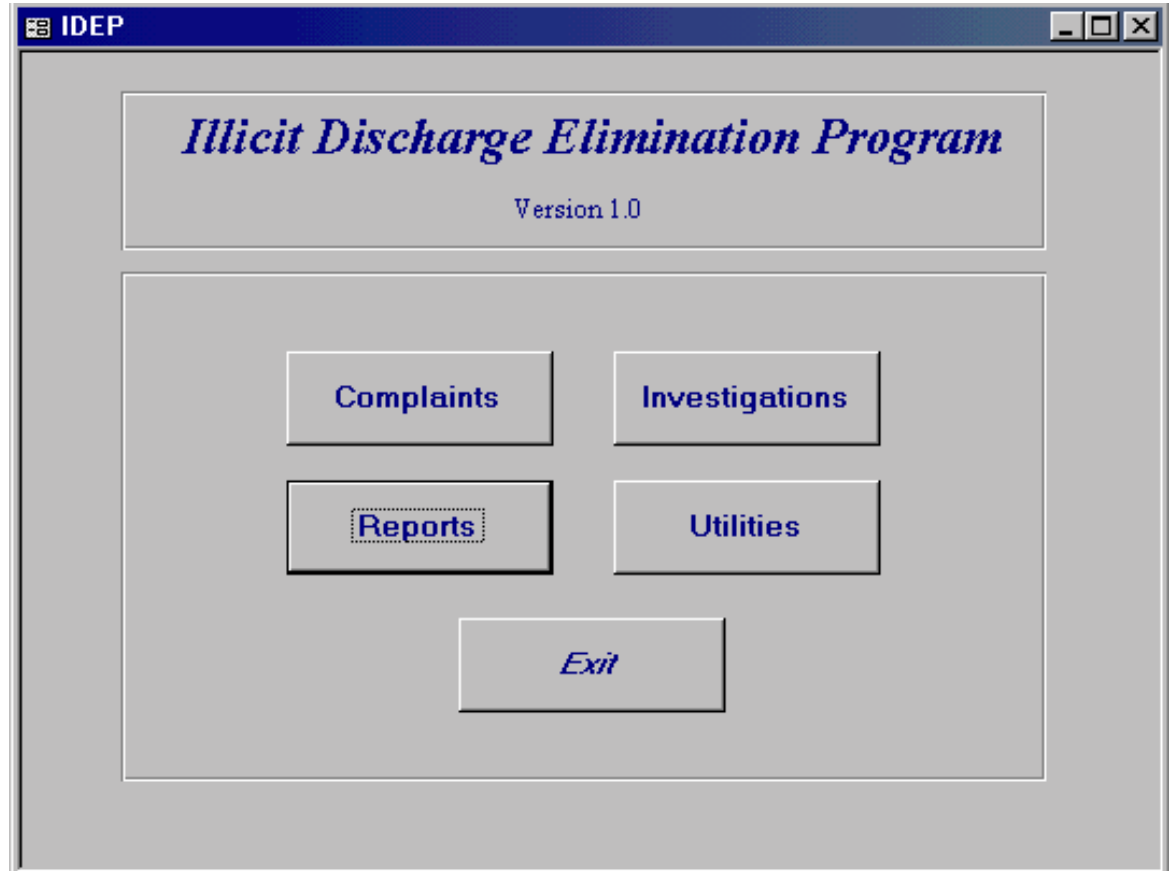
Sample ID	Sample Date	Sample Time
991229-PINE	12/29/1999	11:00 AM

Odor: NONE / SEWAGE

Estimated Flow Rate: NONE / SLOW

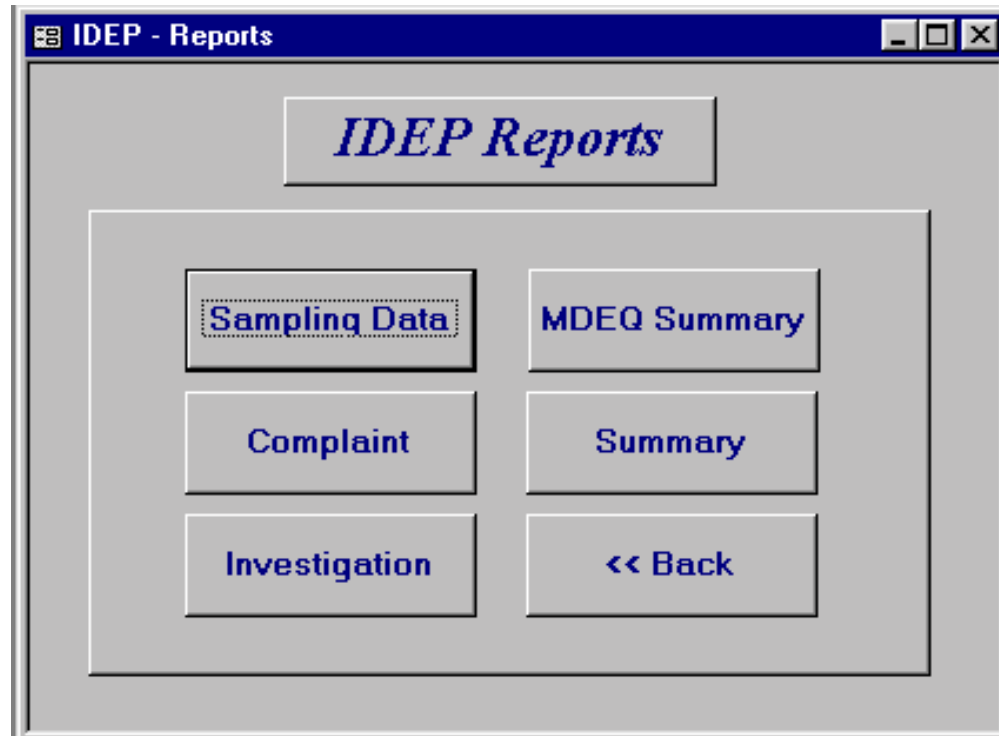
Reports

- Select Reports from the Main Menu to view the sampling data



Reports

- Select “Sampling Data” from the IDEP Reports Menu



Sampling Report

- A blank Sampling Data report form will appear
- Choose the investigation to enter the sampling data
- Select all Communities
- Select all Sites
- Select Preview

The screenshot shows a web-based form titled "Sampling Data Report". The form has a blue header bar. Below the header, there are three dropdown menus for "Investigation(s)", "Community(s)", and "Site(s)". Each dropdown menu has a checked checkbox below it: "All Investigations", "All Communities", and "All Sites". To the right of these dropdowns is a "Where" section with a "Parameter" dropdown, an "Operator" section with three buttons: ">=", "=", and "<=", and a "Value" input field. Below these controls is a large empty table area with a scrollbar. At the bottom left of the table area, it says "Count: 0". At the bottom of the form, there are four buttons: "Preview", "Print", "Print with actions", and "<< Back".

Report

- The data will be visible
- User can then print the data
- Select Back to return to Main Menu

Sampling Data Report

Investigation(s): WS7 Community(s): Site(s):

All Investigations All Communities All Sites

Where
Parameter: Operator: Value:

SITE	LOCATION	ACTIONS	SAMPLEDATE	SAMPLETIME	COND	E_COLI	F_COLI	pH
108	158 Pine	0	12/29/99	11:00 AM	= 0.56	= 1200	= 1000	= 7.2

Count: 1

Preview Print Print with actions << Back

Complaint Report

Complaints

Complaint ID

Complainant

Name **Phone**

Address

City **State** **Zip Code**

Complaint Information

Type **Source**

Date **Time** **Hotline No.**

Community **County**

Location

Complaint

Comments

Referred To

Investigation Report

Investigations

Investigation ID WS1

Description	Check out complaint WS1	Complaint No	WS1		
Field Crew	tom and john	Investigation Date	11/12/99		
Community	Farmington Hills	Count	wayne	Receiving Water	Upper Rouge
Location	Intersection Farmington Road and 11 Mile				
Facility		Facility ID		Facility Type	Unknown
Facility Address				Zip Code	
Field Observations	Oil spilled in gutter				
Actions Recommended	clean it up				
Actions Taken	Called Acme oil removers who cleaned up spill				
Pollutant	Oil				
Completion Date	11/13/99	Percent Complete	100		
Referred To	MDEQ		X Coordinate	13185000	Feet
			Y Coordinate	300000	Feet

Summary Report

IDEP Summary

11/20/2010 to 12/31/2010

Total Number of Complaints
Total Number of Investigations
Total Investigations Completed
Complaints Not Investigated

Complaint ID Date Reported
Location
Complaint

Complaints Not Resolved

Complaint ID Date Reported % Complete
Location
Complaint

Investigations Not Resolved

Investigation ID Investigation Date % Complete
Location
Description

Investigation ID Investigation Date % Complete
Location
Description

Section 2 - Mapping

Map and Add to Map

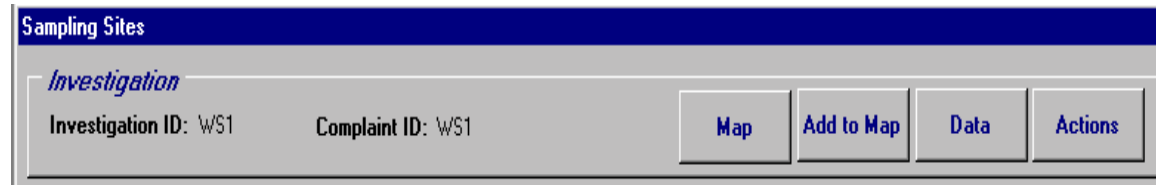
- The Map and Add to Map buttons are available on the complaint, investigation, and sampling site forms



The screenshot shows the 'Complaint' form. At the top, there is a blue header with the text 'Complaint'. Below the header, the 'Complaint ID' is displayed as 'WS1' in a text box. To the right of the text box are two buttons: 'Map' and 'Add to Map'. Below the text box, the word 'Complainant' is visible in a smaller font.



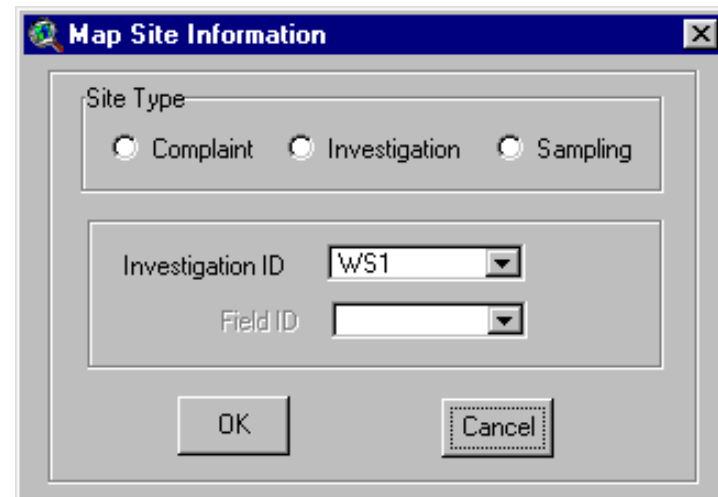
The screenshot shows the 'Investigations' form. At the top, there is a blue header with the text 'Investigations'. Below the header, the 'Investigation ID' is displayed as 'WS7' in a text box. To the right of the text box are six buttons: 'Photos', 'Complaint', 'Map', 'Add to Map', 'Sampling Sites', and 'Sampling Parameters'. Below the text box, the word 'Investigation' is visible in a smaller font.



The screenshot shows the 'Sampling Sites' form. At the top, there is a blue header with the text 'Sampling Sites'. Below the header, the word 'Investigation' is visible in a smaller font. Below that, the 'Investigation ID' is displayed as 'WS1' and the 'Complaint ID' is displayed as 'WS1'. To the right of these text boxes are four buttons: 'Map', 'Add to Map', 'Data', and 'Actions'.

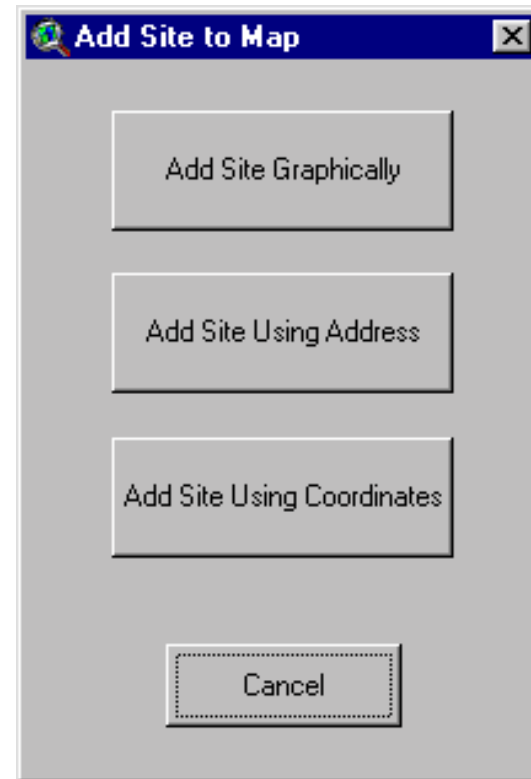
Add to Map

- The Map Site button allows the user to add a site to the project map
- User selects the site type and ID



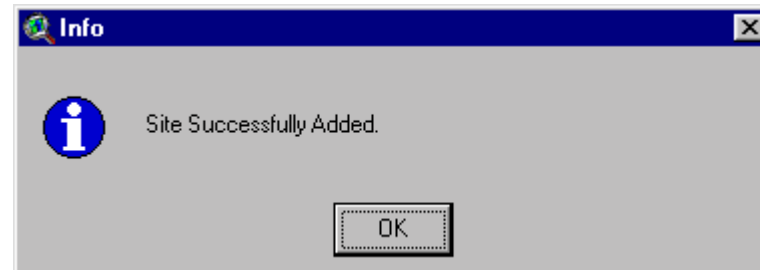
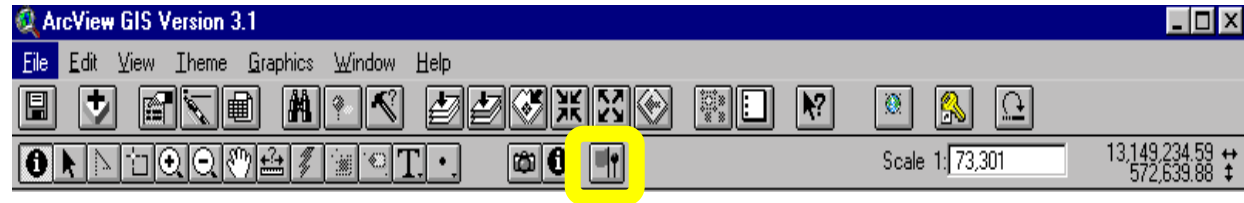
Add to Map

- User chooses which method to use
 - graphically
 - address
 - coordinates



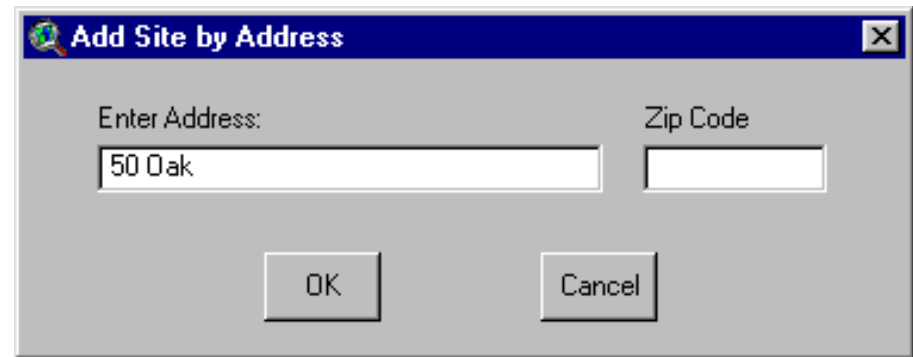
Add to Map - Graphically

- To add the site graphically the user uses the the “Add Site” tool and selects the correct location



Add to Map - Address

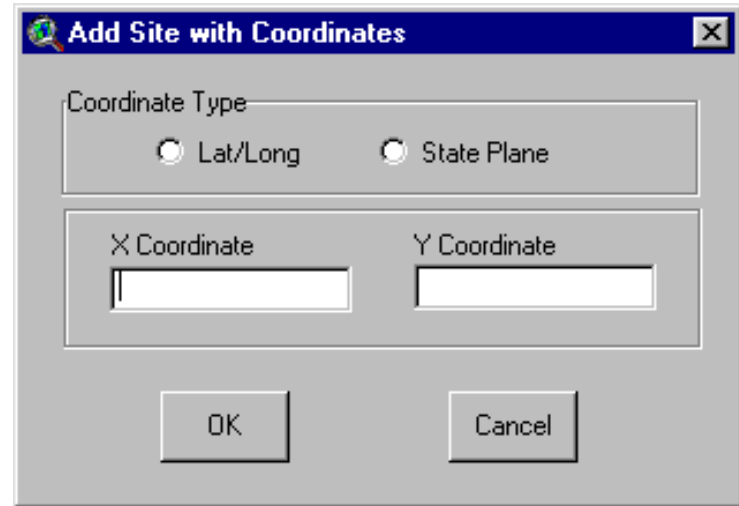
- To add the site by address ArcView locates the site using the user defined address



The screenshot shows a dialog box titled "Add Site by Address". It features a blue title bar with a globe icon on the left and a close button (X) on the right. The main area is light gray and contains two input fields. The first field is labeled "Enter Address:" and contains the text "50 Oak". The second field is labeled "Zip Code" and is currently empty. Below the input fields are two buttons: "OK" and "Cancel".

Add to Map - Coordinates

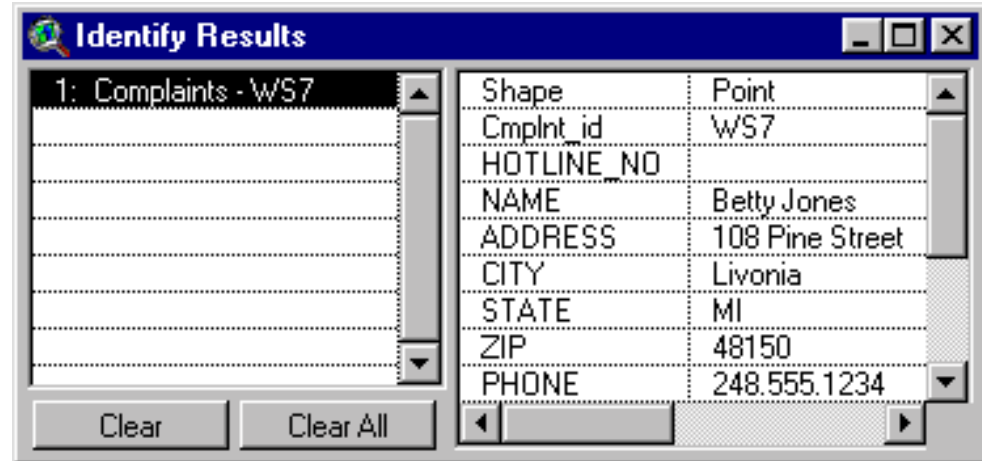
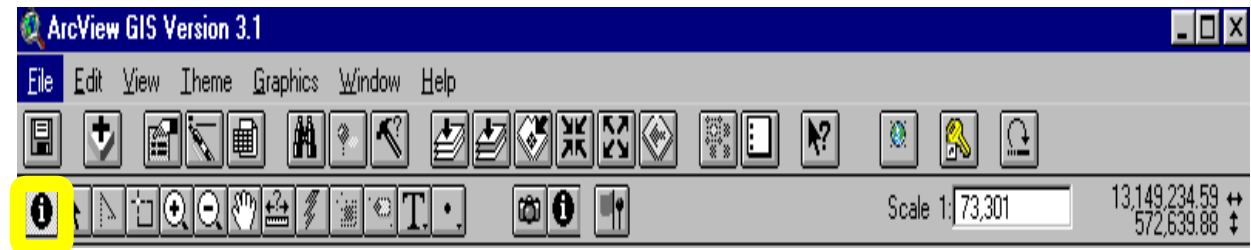
- To add the site by coordinates
ArcView locates the site using the user defined coordinates



The screenshot shows a dialog box titled "Add Site with Coordinates". The dialog is divided into several sections. At the top, there is a "Coordinate Type" section with two radio buttons: "Lat/Long" and "State Plane". Below this, there are two text input fields labeled "X Coordinate" and "Y Coordinate". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Information Tools

- ArcView information button displays details about the site in standard ArcView format



Information Tools

- IDEP information button displays the IDEP record

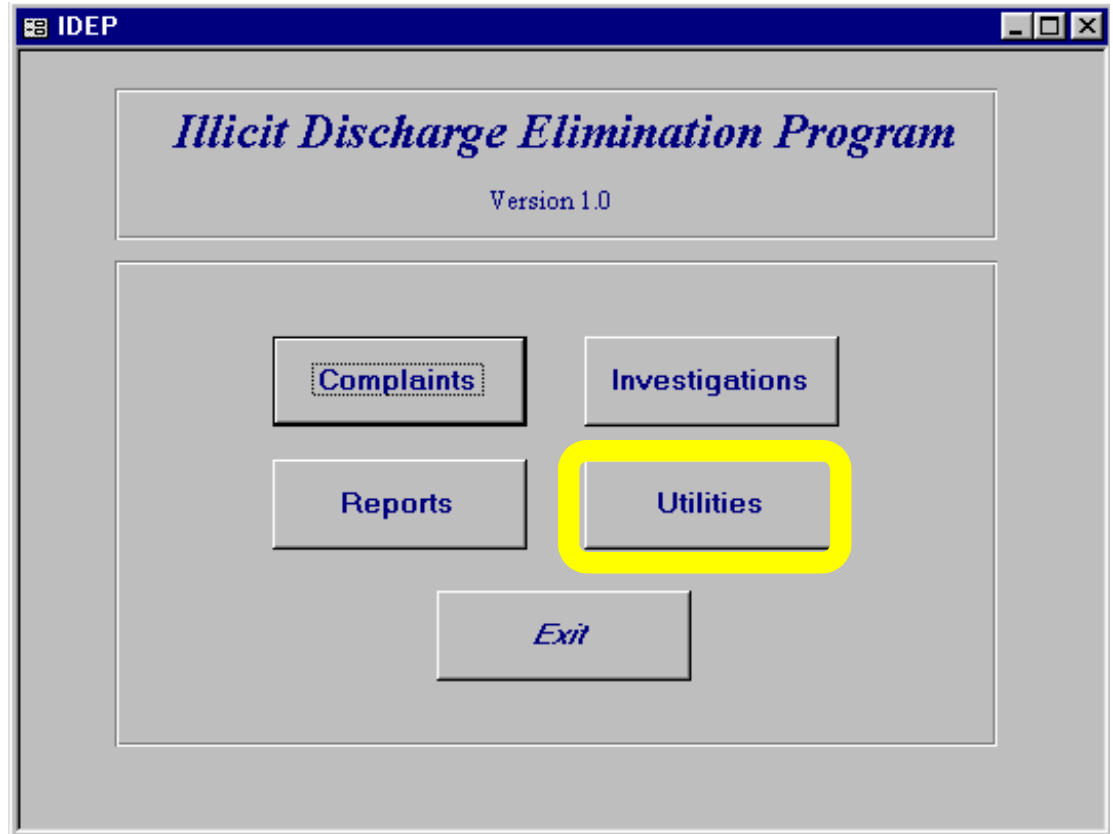
A screenshot of the IDEP Complaint record form. The form is titled "Complaint" and contains the following fields:

- Complaint ID: WVS7
- Complainant Name: Betty Jones
- Phone: 248.555.1234
- Address: 108 Pine Street
- City: Livonia
- State: MI
- Zip Code: 48150
- Complaint Information Type: Unknown Liquid
- Source: Citizen
- Date: 12/29/99
- Time: 9:00 AM
- Hotline No.:
- Community: Livonia
- County: Wayne
- Location: Pine Street Outfall at Rouge River (near intersection of Tanastock and Pine)
- Complaint: Foul smelling unknown liquid discharging from outfall
- Comments: no recent rain
- Referred To: Wayne County DDE

On the right side of the form, there are buttons for "Add", "Delete", "Edit", "Search", and "<< Back". At the bottom, it says "Records: 14 of 1".

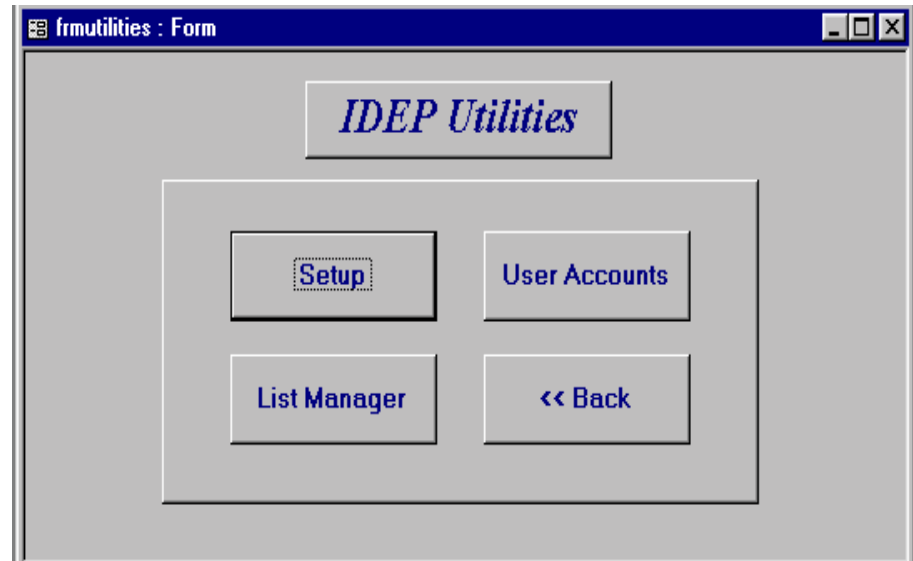
Utilities Menu

- The Utilities form on the main menu allows the user to set up access to the application



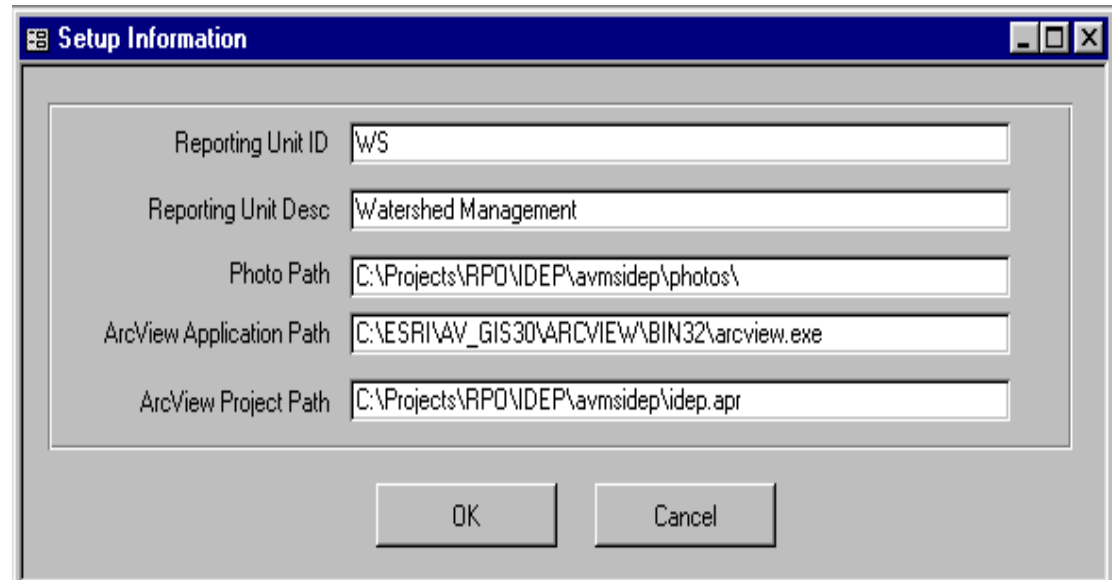
Utilities Menu

- Three forms are available on the Utilities form
 - Setup
 - User Accounts
 - List Manager



Utilities - Setup

- The “Setup Information” form allows the user to enter reporting unit id and description and path descriptions



Setup Information

Reporting Unit ID	WS
Reporting Unit Desc	Watershed Management
Photo Path	C:\Projects\RPQ\IDEP\avmsidep\photos\
ArcView Application Path	C:\ESRI\AV_GIS30\ARCVIEW\BIN32\arcview.exe
ArcView Project Path	C:\Projects\RPQ\IDEP\avmsidep\idep.apr

OK Cancel

Utilities - User Accounts

- The “User Accounts” form allows the administrator to add and delete users and to allow access to records

The screenshot shows a Windows-style window titled "User Accounts". Inside the window, there is a form with two text input fields: "UserName" containing "admin" and "Password" containing "y2k". Below these fields are three checked checkboxes: "Can Add", "Can Delete", and "Can Edit". To the right of the form are three buttons: "Add User", "Delete User", and "Edit User". At the bottom center of the window is a "Close" button. At the bottom left, there is a record navigation bar with the text "Record: 1 of 2" and several navigation icons (back, forward, search, etc.).

Utilities - List Manager

- The “List Manager” form allows the user to modify available lists

The screenshot shows a window titled "List Maintenance" with a blue title bar. The window contains the following elements:

- A dropdown menu labeled "Select List to Edit" with "Complaint Type" selected.
- A text input field labeled "Complaint Type" with a cursor inside.
- Three buttons: "Add" (with a red arrow and asterisk icon), "Edit" (with a notepad icon), and "Delete" (with a trash can icon).
- A "Close Form" button with a yellow arrow icon.
- A table titled "Current Entries" with the following data:

Complaint Type		
Oil		
Illegal Dumping		
Sewage		
Unknown Liquid		
Other		

Mapping and Utilities Exercise

In this exercise the user will use the Utilities module to change the setup, add a new user, and modify a list.

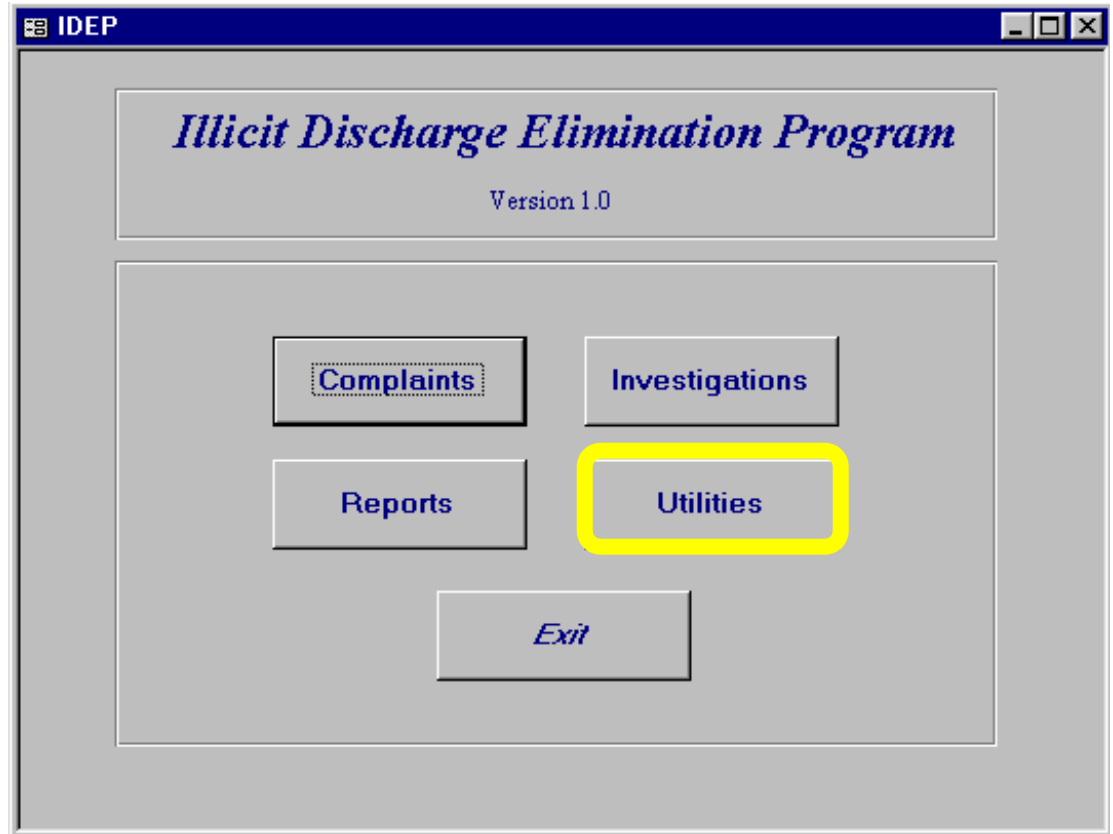
The user will also add the investigation created in Exercise 1 to the ArcView project. Coordinates will be used to locate the project.

Mapping and Utilities (cont.)

- The new reporting unit ID will be the Land and Water Management Division. Their ID will be LW.
- New user is Bob Jones. His password is bj1. He will have access to add and edit records.
- The “Complaint Type” fields will be modified

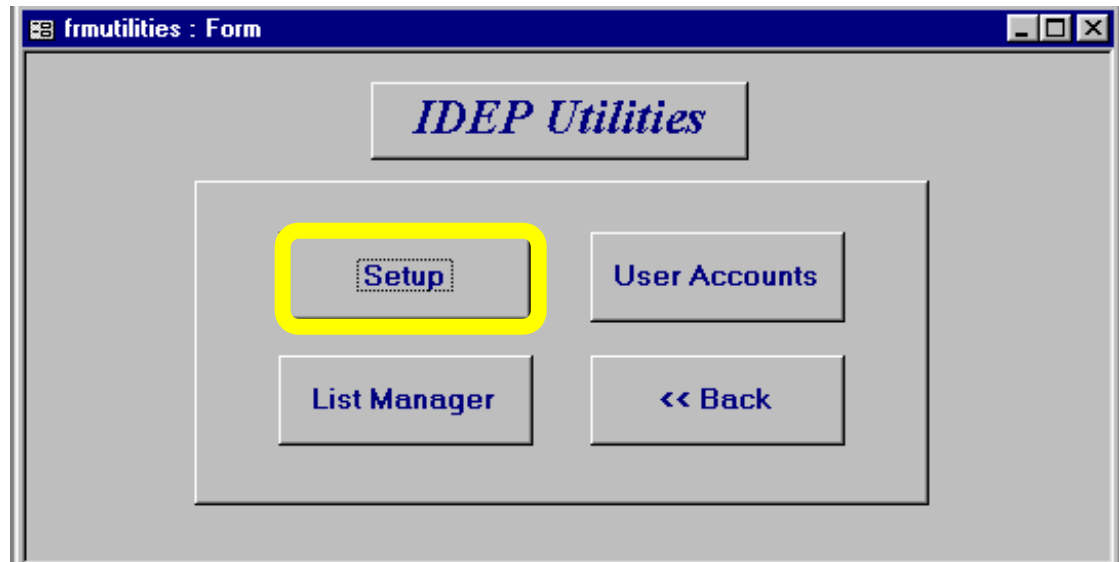
Utilities

- Select “Utilities” from the main menu



Setup

- Select “Setup” from the Utilities menu



Setup

- Change the Setup Information
 - Reporting Unit ID: LW
 - Reporting Unit Desc: Land and Water Management
- Select “OK”

Setup Information

Reporting Unit ID: LW

Reporting Unit Desc: Land and Water Management

Photo Path: C:\Projects\RPD\DEP\avmsidep\photos\

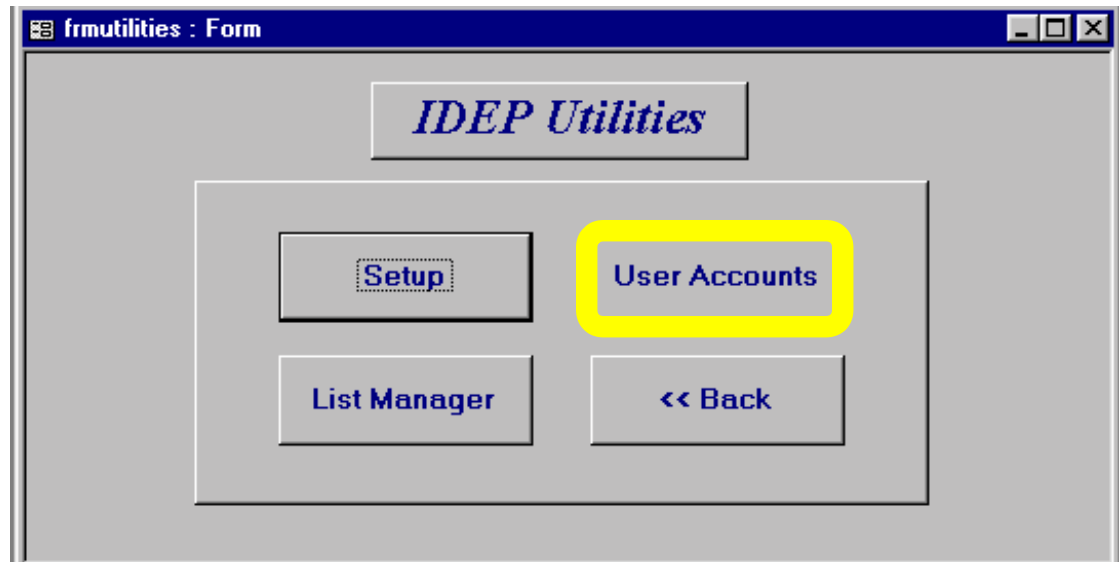
ArcView Application Path: c:\esri\av_gis30\arcview\bin32\arcview.exe

ArcView Project Path: C:\Projects\RPD\DEP\avmsidep\idep.apr

OK Cancel

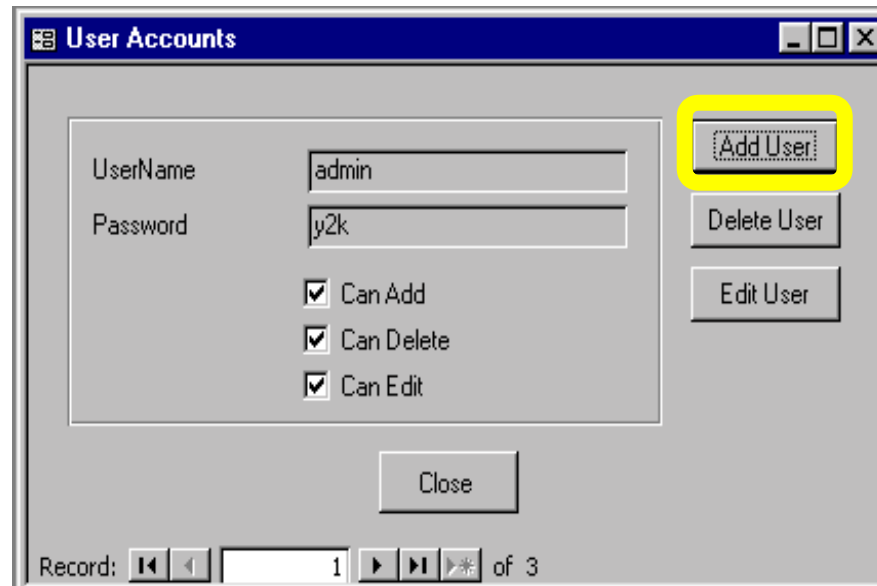
User Accounts

- Select “User Accounts” from the Utilities menu



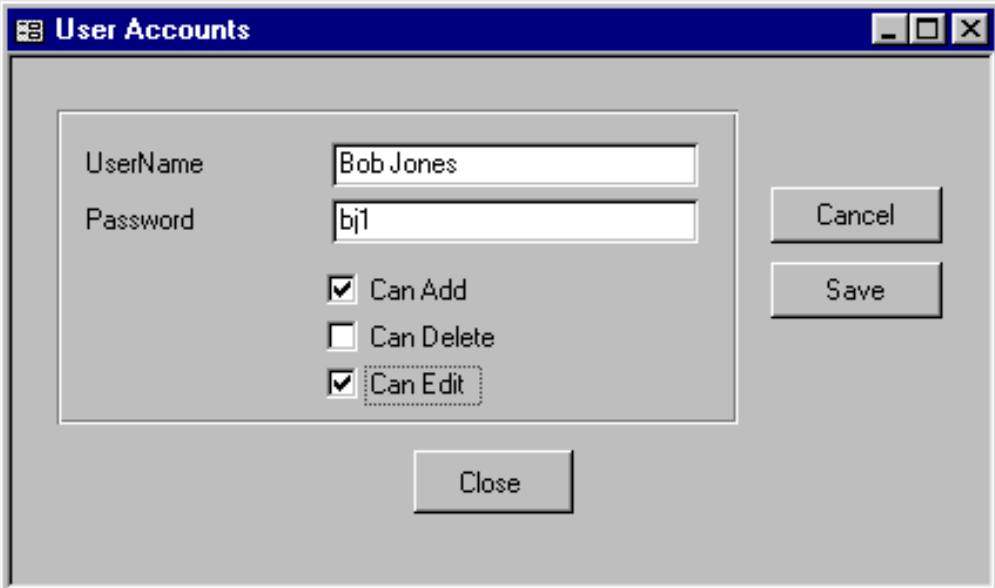
User Accounts

- Select “Add User” from the tool bar on the right of the screen



User Accounts

- Add the information
 - UserName: Bob Jones
 - Password: bj1
 - Can Add
 - Can Edit
- Select “Save”
- Select “Close”



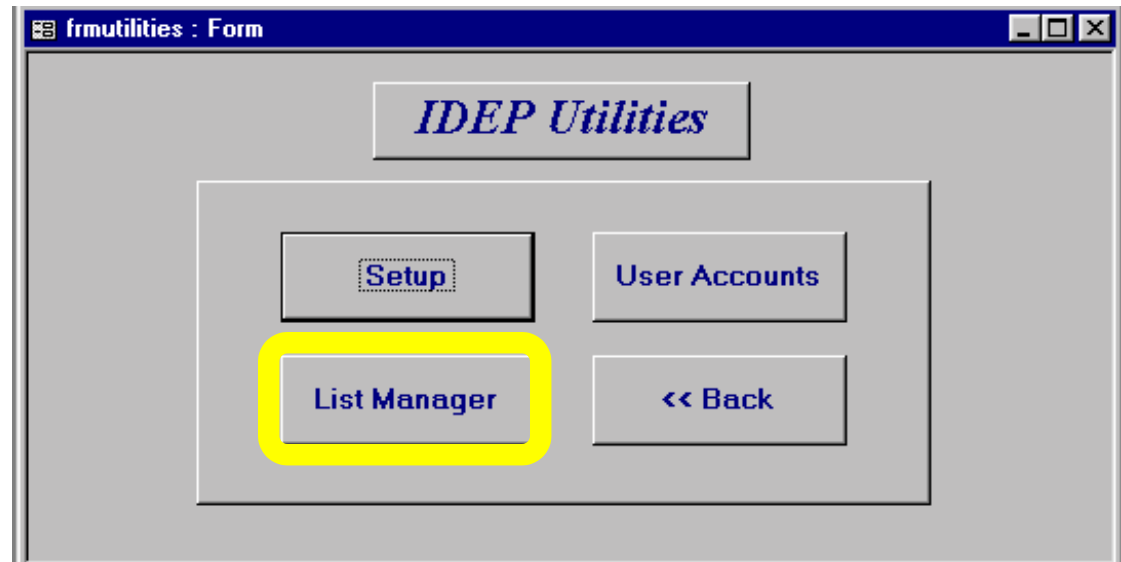
The image shows a screenshot of a Windows-style dialog box titled "User Accounts". The dialog box has a blue title bar with standard window controls (minimize, maximize, close). The main area is light gray and contains a white-bordered box with the following fields and options:

- UserName: A text box containing "Bob Jones".
- Password: A text box containing "bj1".
- Permissions: Three checkboxes:
 - Can Add
 - Can Delete
 - Can Edit

Outside the white-bordered box, there are three buttons: "Cancel" and "Save" are stacked vertically on the right side, and "Close" is centered at the bottom.

List Manager

- Select “List Manager” from the Utilities Menu



List Manager

- Select “Complaint Type” from the List to Edit menu

List Maintenance

Select List to Edit
Complaint Type

Complaint Type

Add Edit Delete

Close Form

Current Entries

Complaint Type
Oil
Illegal Dumping
Sewage
Unknown Liquid
Other

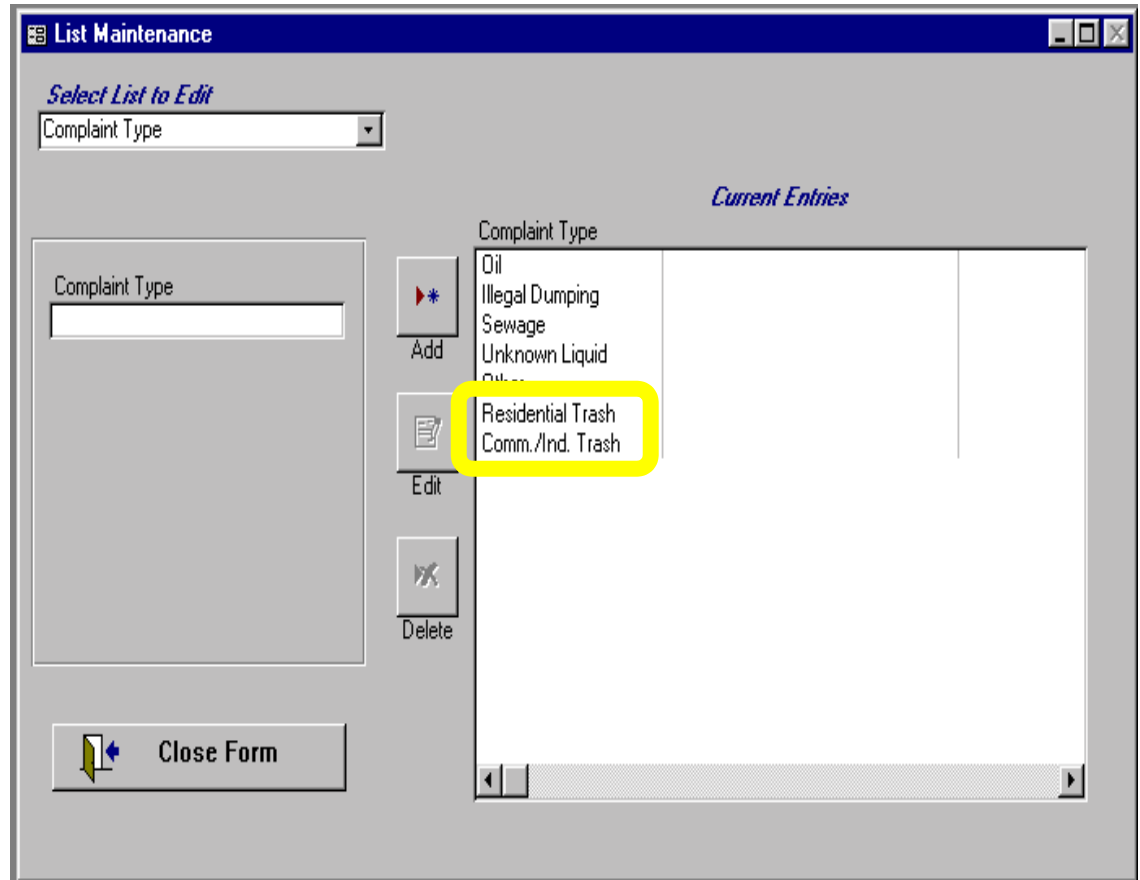
List Manager

- Enter “Residential Trash” under complaint type
- Select the “Add” button to include it in the list

The screenshot shows a software window titled "List Maintenance". At the top, there is a dropdown menu labeled "Select List to Edit" with "Complaint Type" selected. Below this is a text input field containing "Residential Trash". To the right of this field is a vertical stack of buttons: "Add" (with a red arrow and asterisk icon), "Edit" (with a notepad icon), and "Delete" (with a trash can icon). The "Add" button is highlighted with a yellow border. At the bottom left, there is a "Close Form" button with a left-pointing arrow. On the right side, there is a table titled "Current Entries" with a header "Complaint Type" and a list of entries: "Oil", "Illegal Dumping", "Sewage", "Unknown Liquid", and "Other".

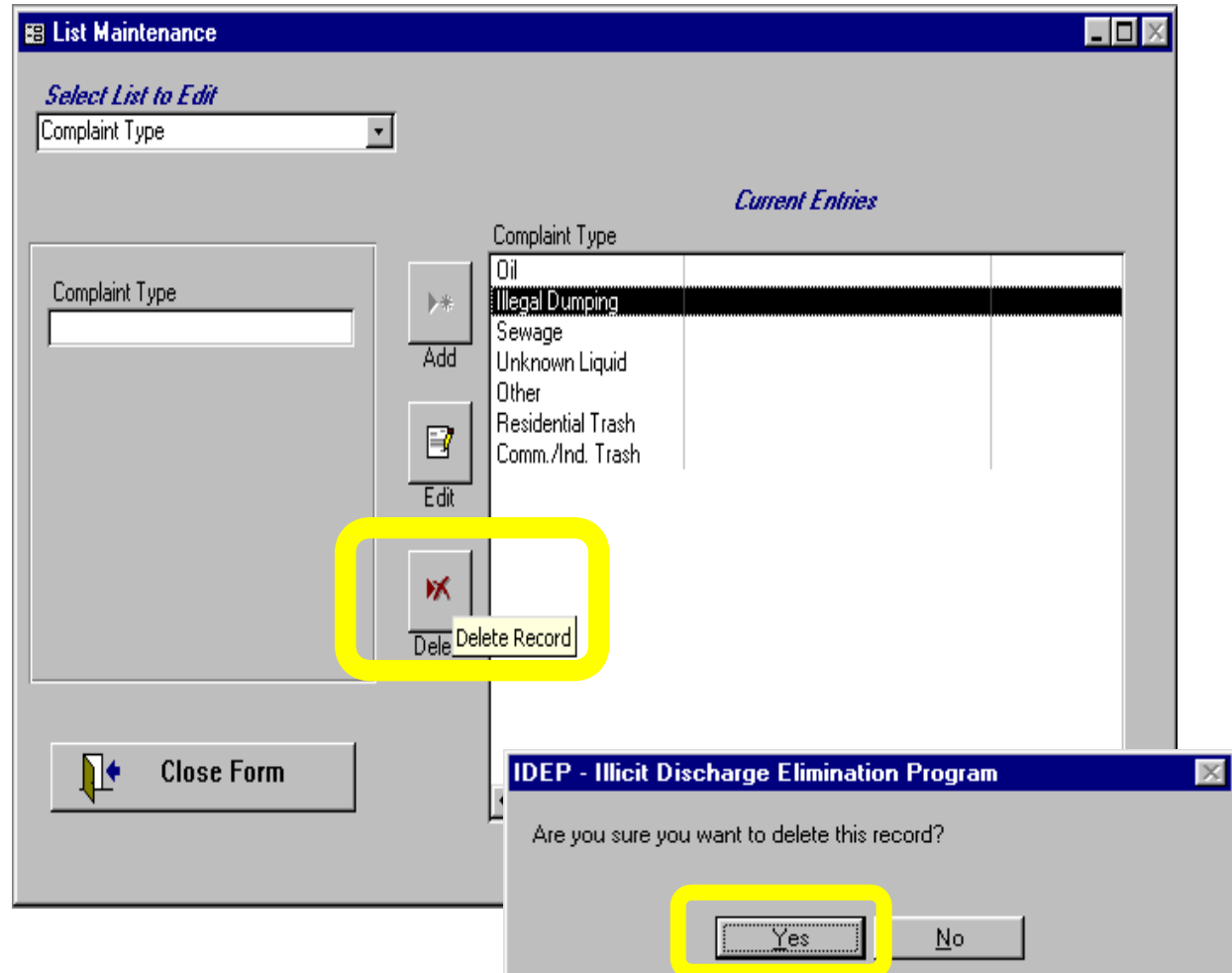
List Manager

- “Residential Trash” is now present under complaint type
- Follow the same steps to add “Comm/Ind” Trash



List Manager

- Select “Illegal Dumping”
- Select the “Delete” box in the center of the screen
- Click “Yes” to delete the record
- Select “Close Form”



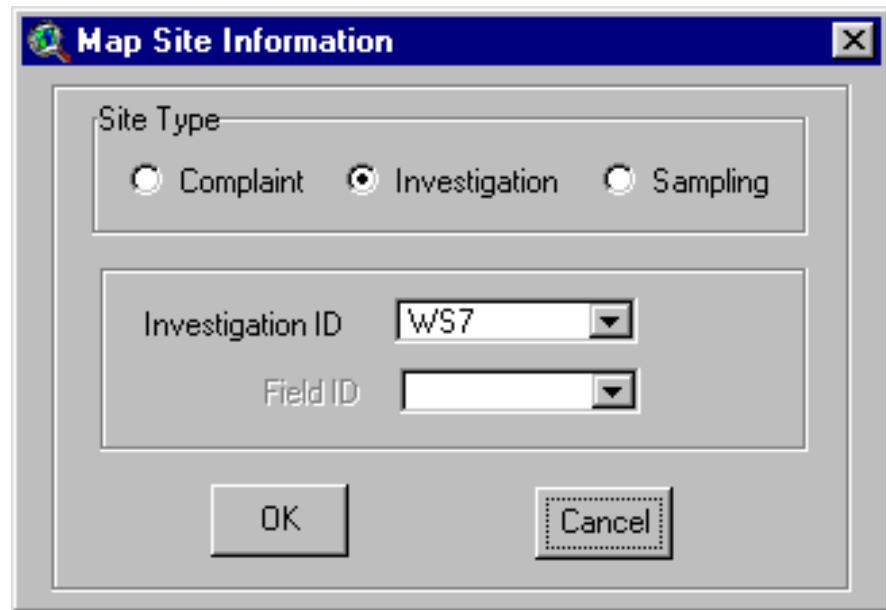
Mapping

- Return to the Main Menu
- Select Investigations Module
- Select “Map” to open the ArcView project



Mapping

- “Investigations” theme should be active
- Select the “Add Map Site Information” tool
- Select the correct Investigation
- Select “OK”



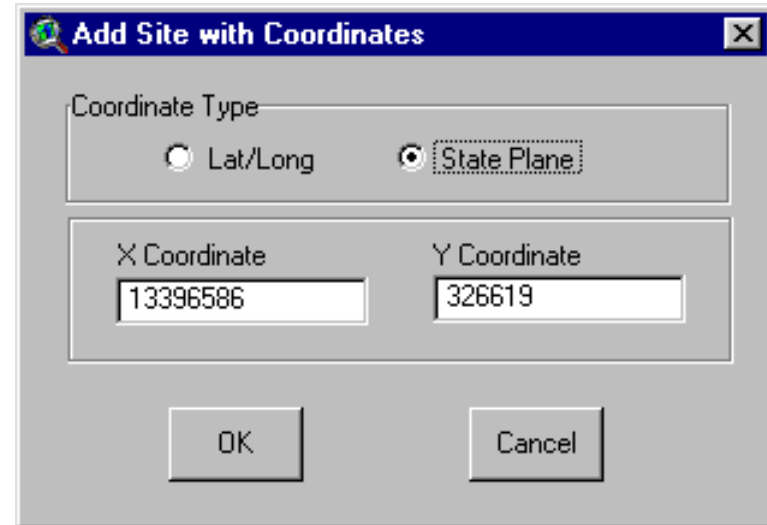
Mapping

- Select “Add Site Using Coordinates” to add the site to the map

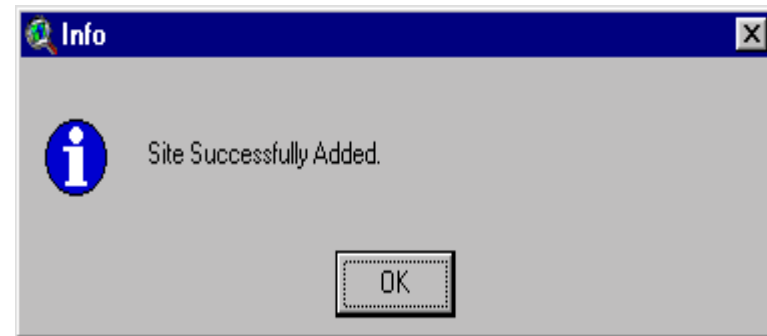


Mapping

- User inputs the coordinates and coordinate type
- Coordinate Information
 - State Plane
 - X Coordinate: 13396586
 - Y Coordinate: 326619
- “Site Successfully Added” should appear in Info box

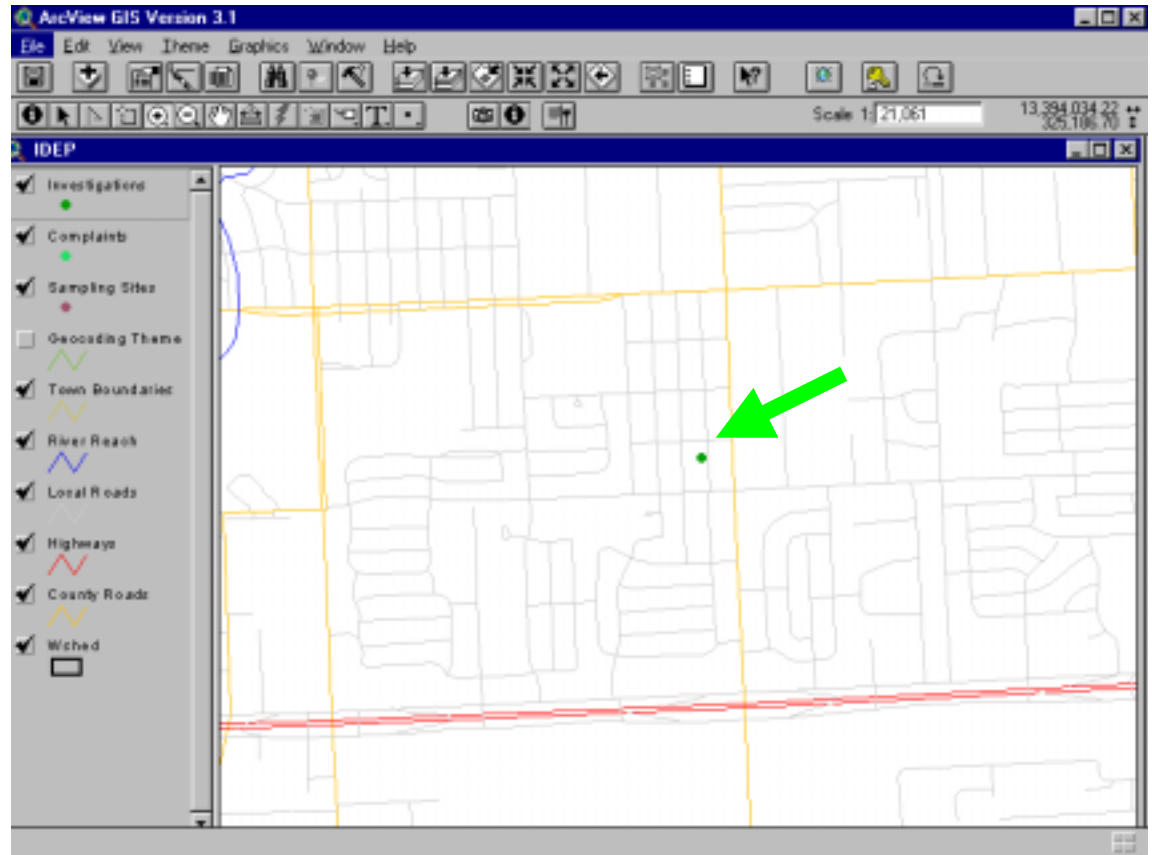


The screenshot shows a dialog box titled "Add Site with Coordinates". It contains a "Coordinate Type" section with two radio buttons: "Lat/Long" (unselected) and "State Plane" (selected). Below this are two text input fields: "X Coordinate" with the value "13396586" and "Y Coordinate" with the value "326619". At the bottom are "OK" and "Cancel" buttons.



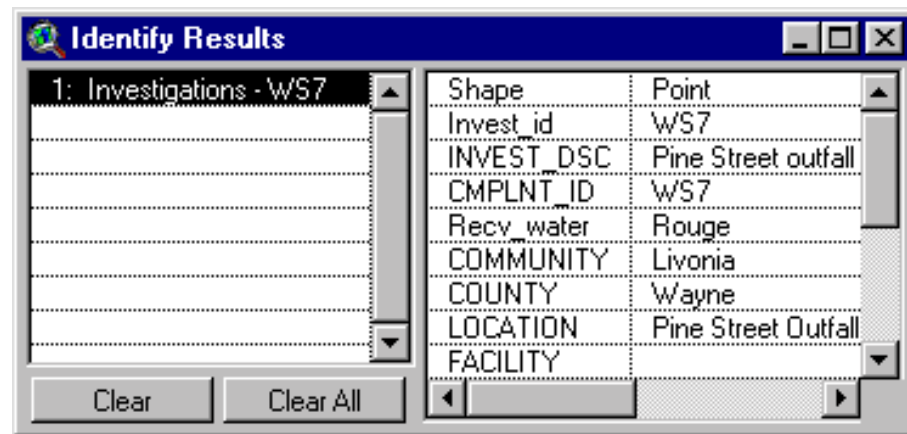
Mapping

- Investigation present in ArcView window



Mapping

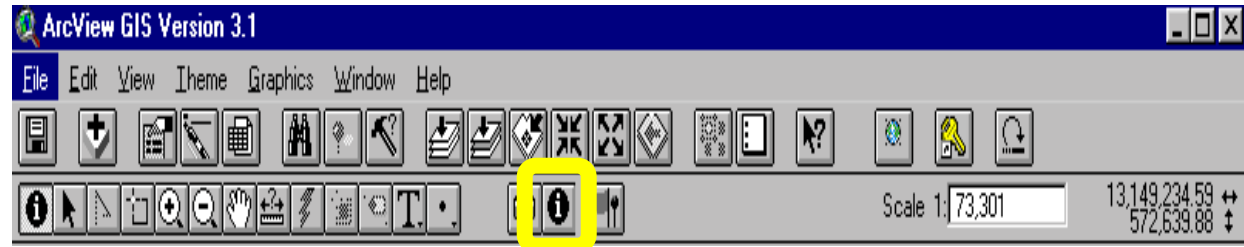
- Use the ArcView Information tool to display the ArcView record for the investigation you just entered



Attribute	Value
Shape	Point
Invest_id	WS7
INVEST_DSC	Pine Street outfall
CMLPNT_ID	WS7
Recv_water	Rouge
COMMUNITY	Livonia
COUNTY	Wayne
LOCATION	Pine Street Outfall
FACILITY	

Mapping

- Use the IDEP Information tool to display the IDEP record for the investigation you just entered



Investigations

Investigation ID: WS7 Photos Complaint Map Add to Map Sampling Sites Sampling Parameters

Investigation

Description	Pine Street outfall discharge	Complaint No	WS7
Field Crew	Tony and bill	Investigation Date	12/29/99
Community	Livonia	County	Wayne
		Receiving Water	Rouge
Location	Pine Street Outfall at Rouge (near intersection of Tamarack and Pine)		
Facility	Facility ID	Facility Type	Unknown
Facility Address		Zip Code	
Field Observations	Foul smelling unknown liquid discharging from outfall		
Actions Recommended	sampling at outfall and at site upstream		
Actions Taken	sampling at outfall and upstream		
Pollutant of Concern	bacteria	Related To	Wayne County DO
Completion Date	12/29/99	Percent Complete	100
Map Coordinates			
<input type="radio"/> Latitude / Longitude	X-Coordinate	Y-Coordinate	Units
<input type="radio"/> State Plane			Unknown Units

Record: 1 of 1

Buttons: Add, Delete, Edit, Search, << Back