

# High Efficiency Trail Assessment Process (HETAP)

## Main Screen Visuals



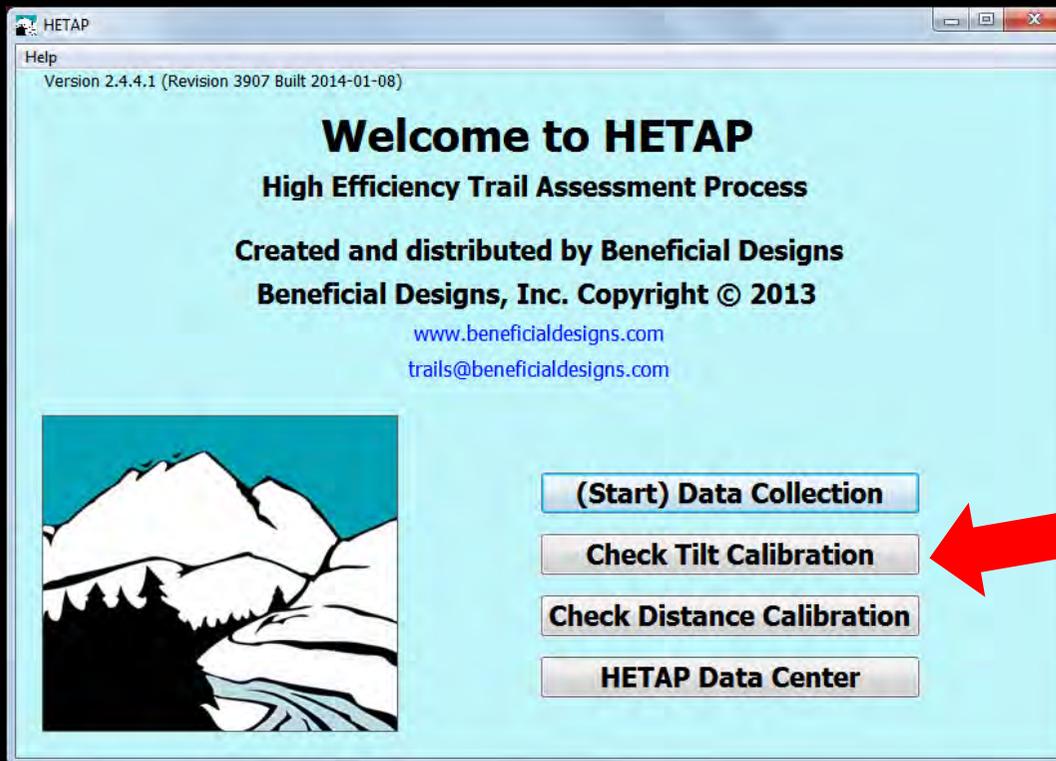
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# Welcome Screen

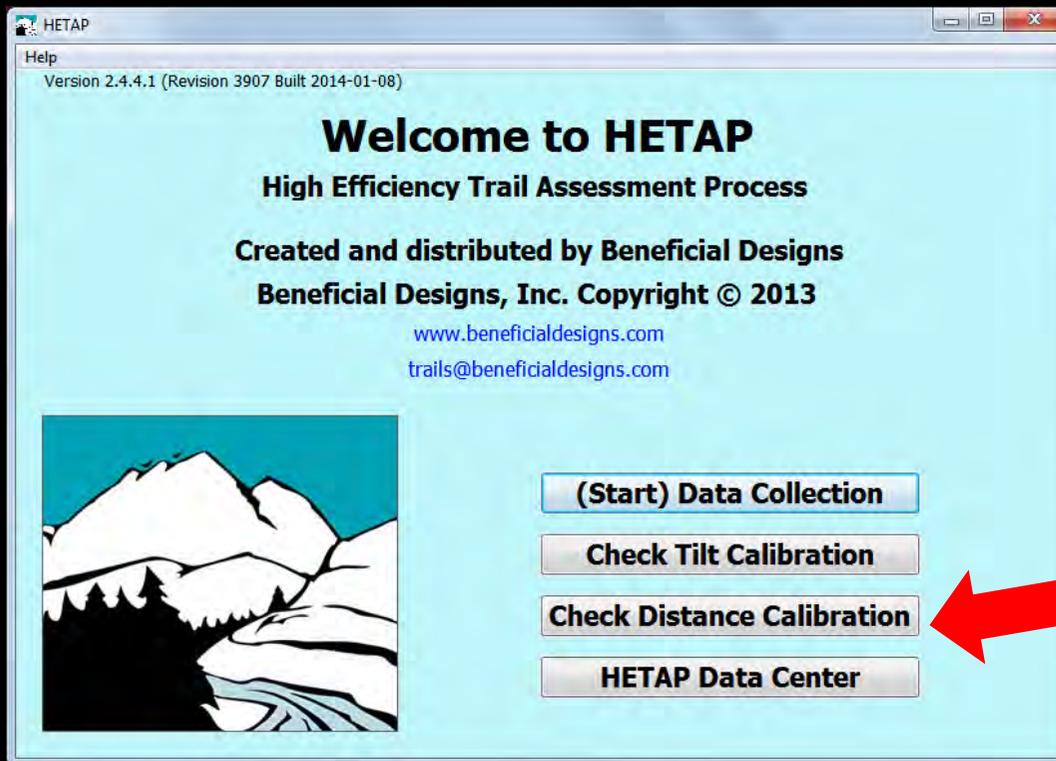
Typically start out by checking the  
Tilt Calibration



Calibration  
covered in  
the Tools  
and  
Calibration  
session

# Welcome Screen

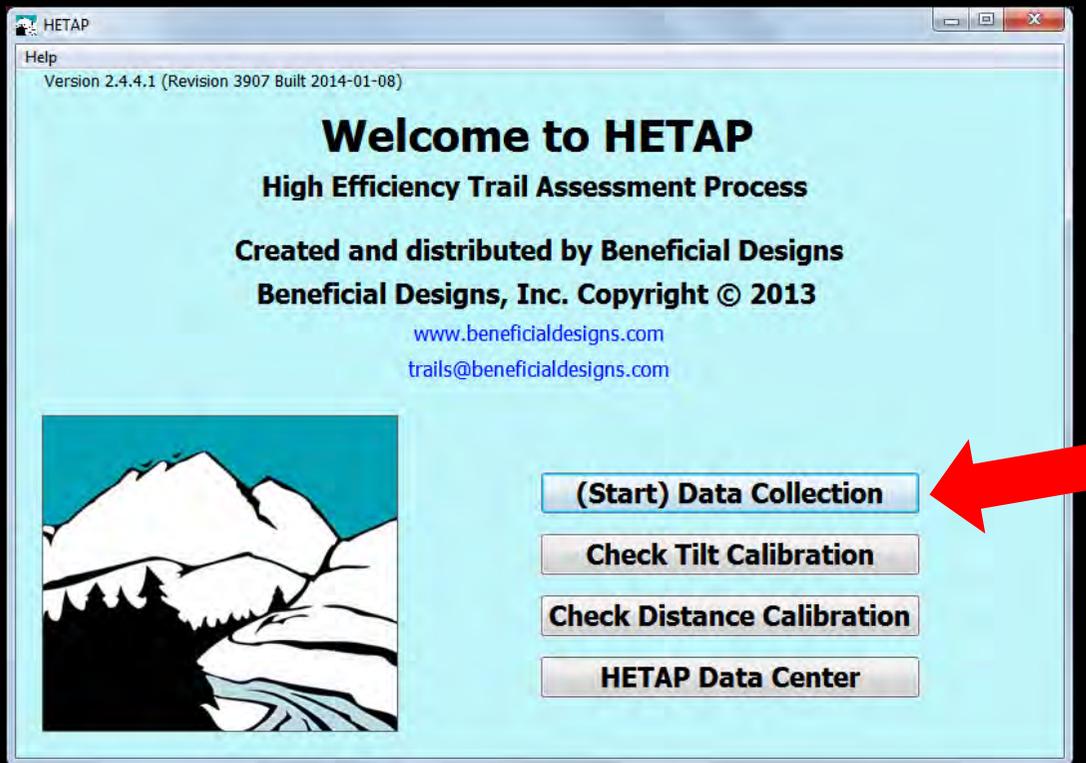
Next, check the Distance Calibration



Calibration  
covered in  
the Tools  
and  
Calibration  
session

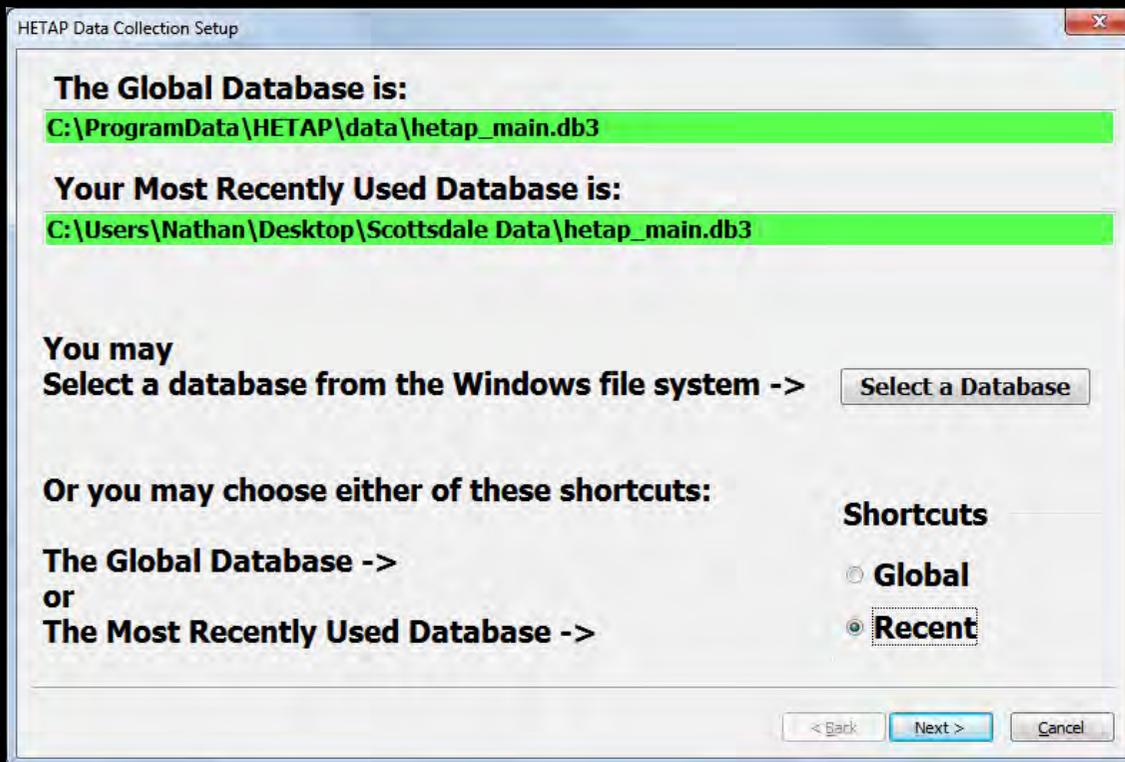
# Welcome Screen

All Calibrated? Now ready to start  
collecting Data



# Database Selection Screen

Verify connection to proper data set



Allows creation of new blank database or connection to another HETAP dataset

# Park Screen

Select State

Enter or Select Agency Name

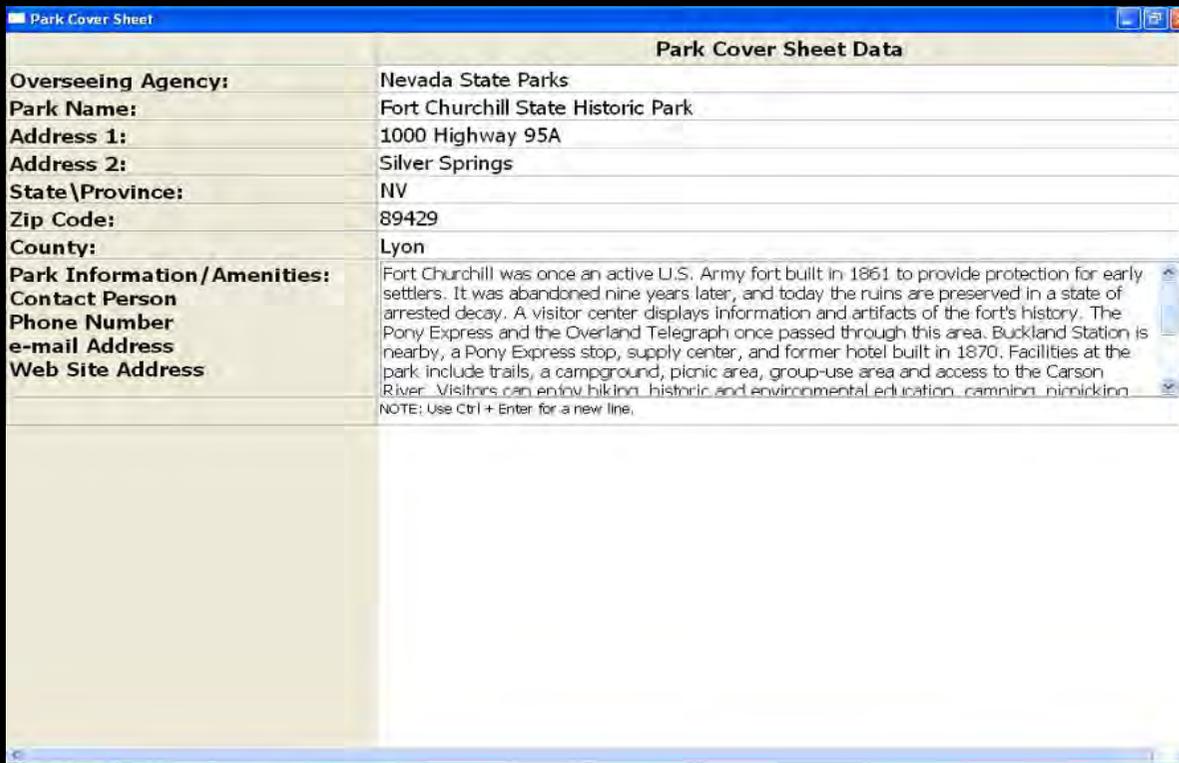
The screenshot shows a window titled "HETAP Data Collection Setup". It has two dropdown menus at the top: "Select State or Province:" with "Arizona" selected, and "Select or Enter Agency Name:" with "City of Scottsdale" selected. Below these is a "Park Name:" section with instructions: "To use the default park name, click Next. To start a new park, enter the name and click Add. Or, you may select a park from the list, below." A list box contains "Scottsdale McDowell Sonoran" (highlighted in blue) and "Scottsdale McDowell Sonoran" (highlighted in green). To the right of the list are "Add" and "Cover Sheet" buttons. At the bottom are "< Back", "Next >", and "Cancel" buttons.

Enter the Park Name

Select "Cover Sheet" to fill in Park information

# Park Cover Sheet

Enter relevant information about the park for the TAI export



The screenshot shows a software window titled "Park Cover Sheet" with a sub-header "Park Cover Sheet Data". The form contains the following fields and values:

Overseeing Agency:	Nevada State Parks
Park Name:	Fort Churchill State Historic Park
Address 1:	1000 Highway 95A
Address 2:	Silver Springs
State\Province:	NV
Zip Code:	89429
County:	Lyon
Park Information/Amenities:	Fort Churchill was once an active U.S. Army fort built in 1861 to provide protection for early settlers. It was abandoned nine years later, and today the ruins are preserved in a state of arrested decay. A visitor center displays information and artifacts of the fort's history. The Pony Express and the Overland Telegraph once passed through this area. Buckland Station is nearby, a Pony Express stop, supply center, and former hotel built in 1870. Facilities at the park include trails, a campground, picnic area, group-use area and access to the Carson River. Visitors can enjoy hiking, historic and environmental education, camping, picnicking.
Contact Person	
Phone Number	
e-mail Address	
Web Site Address	

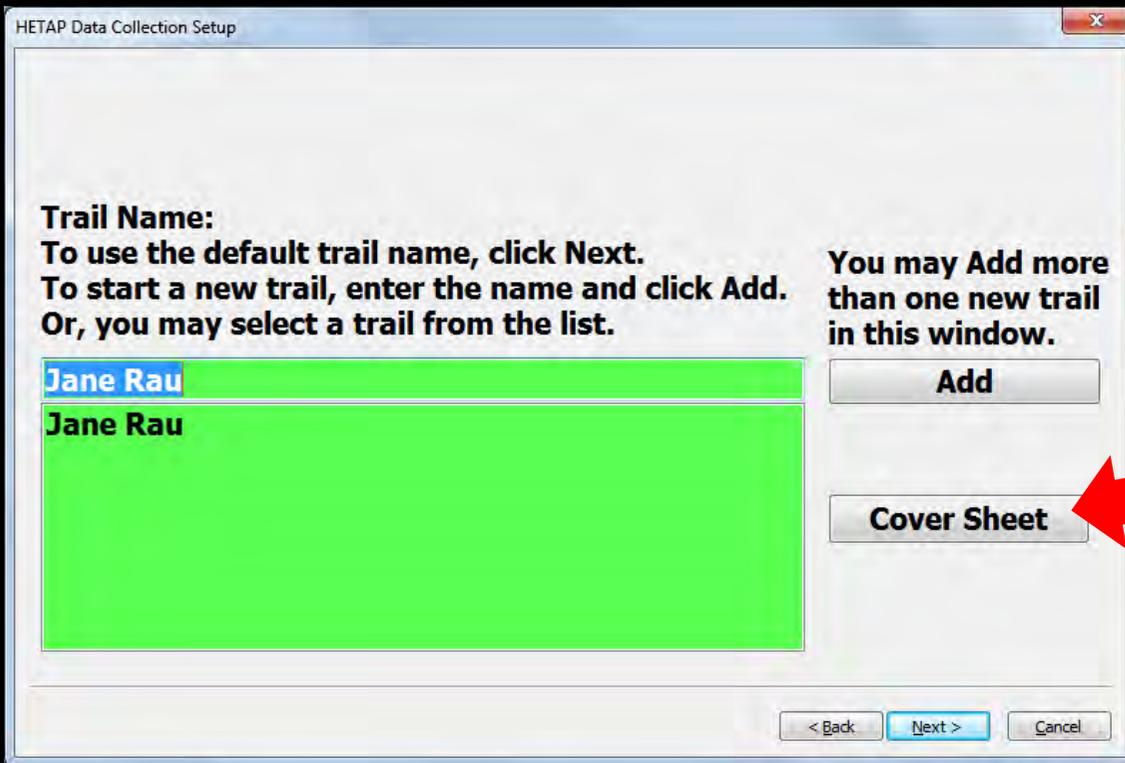
NOTE: Use Ctrl + Enter for a new line.

Must use the **Red X** to close pop-up and return to Park Screen

# Trail Screen

Enter or Select Trail Name

Must “Add” to list before available



HETAP Data Collection Setup

**Trail Name:**  
To use the default trail name, click Next.  
To start a new trail, enter the name and click Add.  
Or, you may select a trail from the list.

You may Add more than one new trail in this window.

Jane Rau

Jane Rau

Add

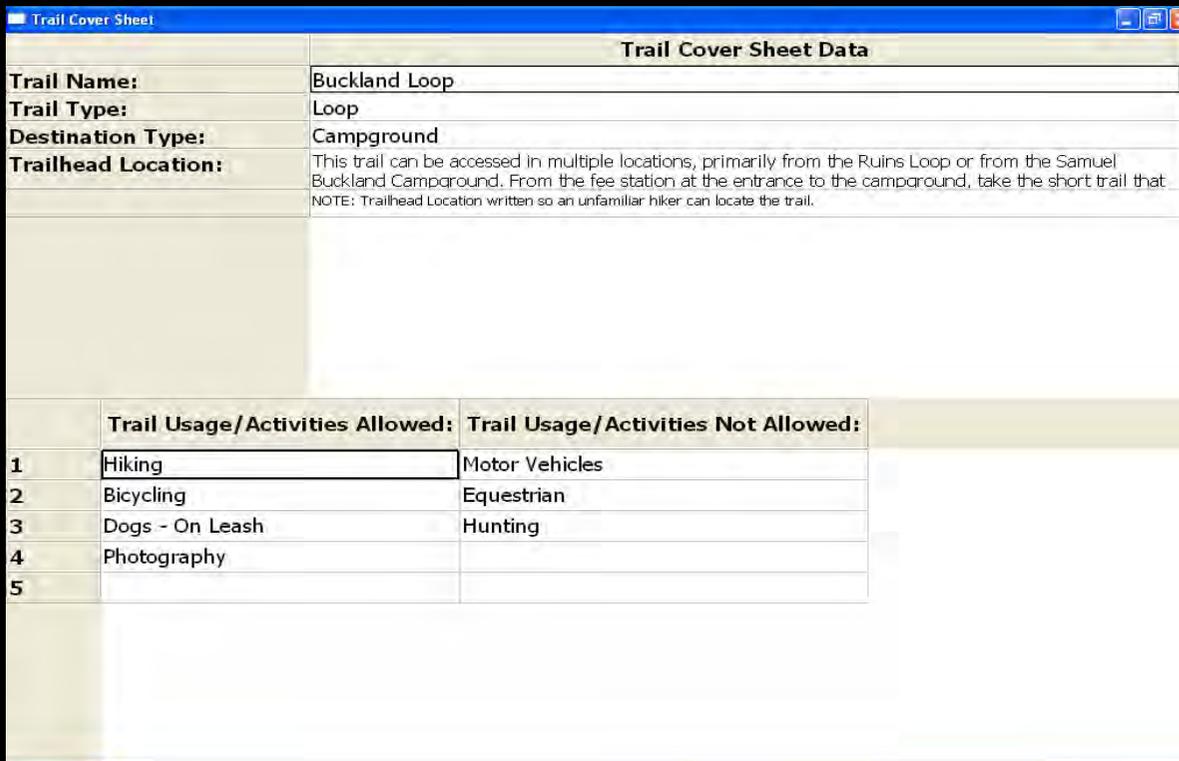
Cover Sheet

< Back Next > Cancel

Select “Cover Sheet” to fill in Trail information

# Trail Cover Sheet

Enter relevant information about the Trail for the TAI export



The screenshot shows a software window titled "Trail Cover Sheet" with a "Trail Cover Sheet Data" form. The form contains the following fields:

- Trail Name:** Buckland Loop
- Trail Type:** Loop
- Destination Type:** Campground
- Trailhead Location:** This trail can be accessed in multiple locations, primarily from the Ruins Loop or from the Samuel Buckland Campground. From the fee station at the entrance to the campground, take the short trail that  
NOTE: Trailhead Location written so an unfamiliar hiker can locate the trail.

Below these fields is a table with two columns: "Trail Usage/Activities Allowed:" and "Trail Usage/Activities Not Allowed:". The table has five rows:

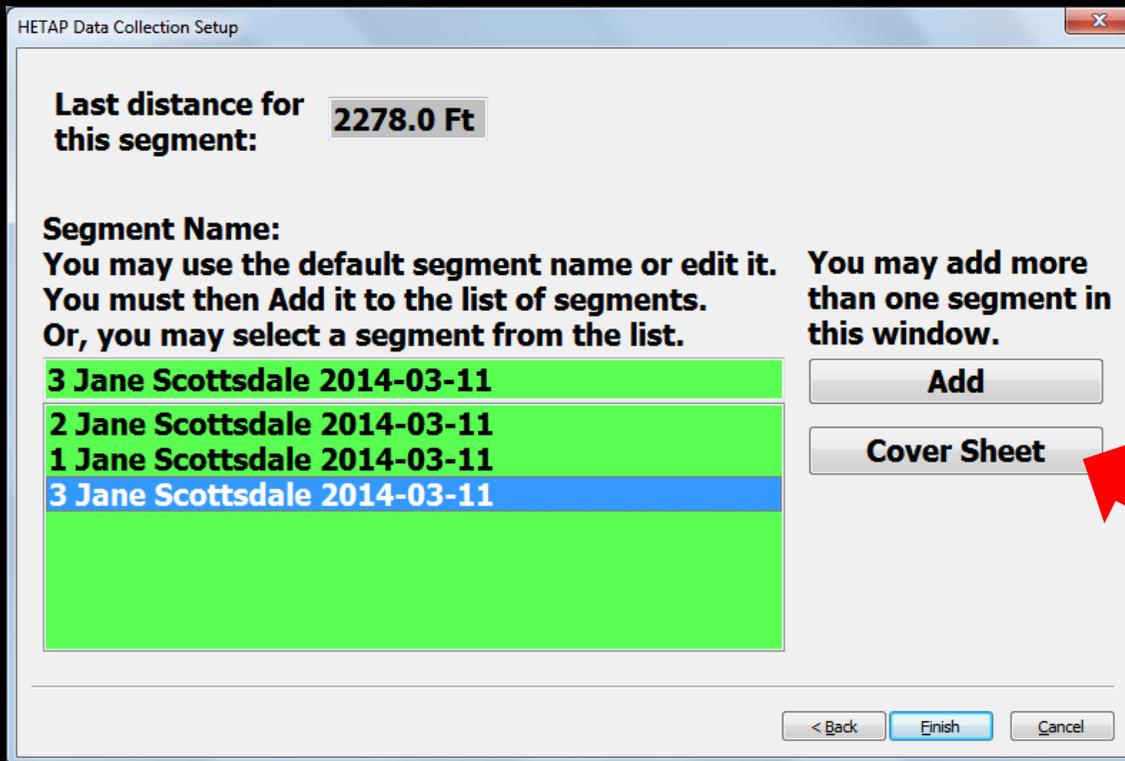
	Trail Usage/Activities Allowed:	Trail Usage/Activities Not Allowed:
1	Hiking	Motor Vehicles
2	Bicycling	Equestrian
3	Dogs - On Leash	Hunting
4	Photography	
5		

Must use the **Red X** to close pop-up and return to Trail Screen

# Segment Screen

Enter or Select Segment Name

Must “Add” to list before available



HETAP Data Collection Setup

Last distance for this segment:

Segment Name:  
You may use the default segment name or edit it. You must then Add it to the list of segments. Or, you may select a segment from the list.

You may add more than one segment in this window.

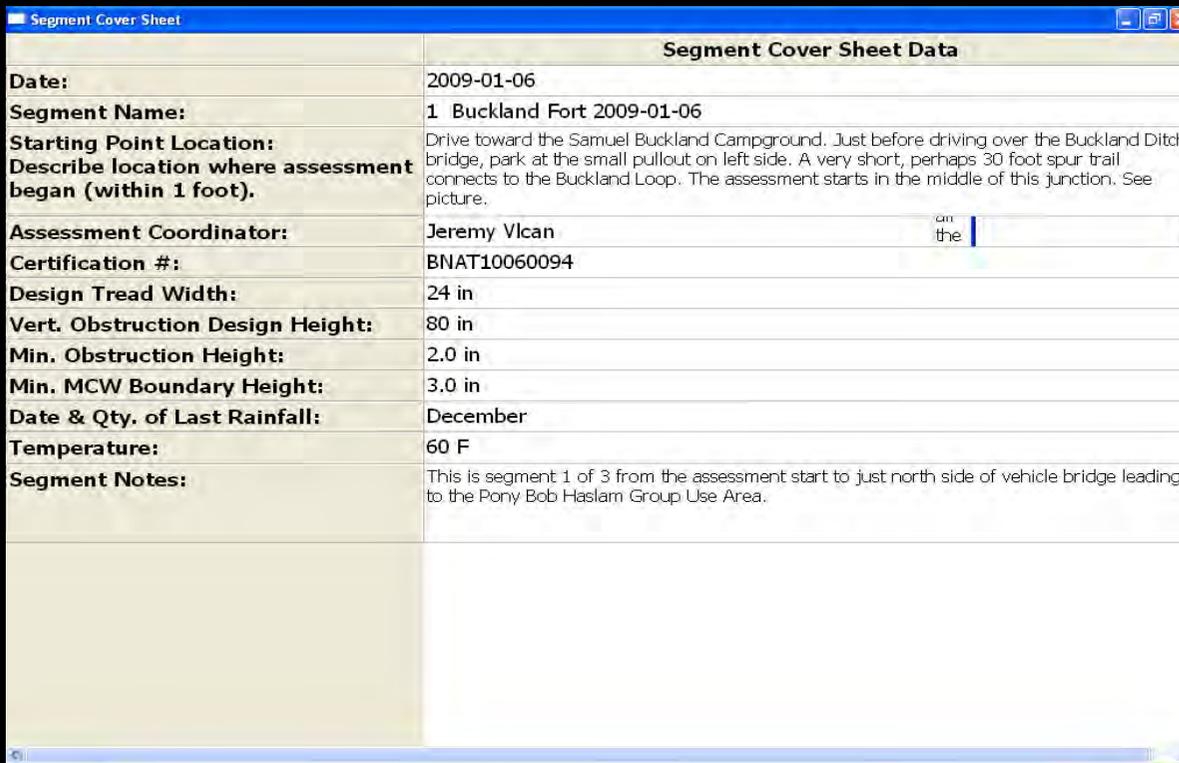
3	Jane Scottsdale	2014-03-11
2	Jane Scottsdale	2014-03-11
1	Jane Scottsdale	2014-03-11
3	Jane Scottsdale	2014-03-11

Auto-Naming  
provided in  
Software

Select “Cover  
Sheet” to fill in  
segment  
information

# Segment Cover Sheet

Enter relevant information about the segment for the TAI export



The screenshot shows a software window titled "Segment Cover Sheet" with a sub-header "Segment Cover Sheet Data". The form contains the following fields and values:

Segment Cover Sheet Data	
Date:	2009-01-06
Segment Name:	1 Buckland Fort 2009-01-06
Starting Point Location: Describe location where assessment began (within 1 foot).	Drive toward the Samuel Buckland Campground. Just before driving over the Buckland Ditch bridge, park at the small pullout on left side. A very short, perhaps 30 foot spur trail connects to the Buckland Loop. The assessment starts in the middle of this junction. See picture.
Assessment Coordinator:	Jeremy Vlcan
Certification #:	BNAT10060094
Design Tread Width:	24 in
Vert. Obstruction Design Height:	80 in
Min. Obstruction Height:	2.0 in
Min. MCW Boundary Height:	3.0 in
Date & Qty. of Last Rainfall:	December
Temperature:	60 F
Segment Notes:	This is segment 1 of 3 from the assessment start to just north side of vehicle bridge leading to the Pony Bob Haslam Group Use Area.

Must use the **Red X** to close pop-up and return to the Segment Screen

**Last Station Recorded**

48 in

Hard

Aggregate/ Gravel

6628.0 Ft

-7.1 %

0.7 %

**Copy Surf. Data ->****Tread Width:****Surface Category:****Surface Type:****Distance:****Grade:****Cross Slope:****Current Station To Record**

36

in

Set MCW

Soft

Sand

6640.7 Ft

4.9 %

2.6 %

**Record Station****Add Features****Return Home****Distance Hold****Manual Entry****View Data****Alarm Settings****Calibration****New Segment****Current Segment:**

3 Nature Fort 2009-01-06

**Outslope**

Check Outslope Direction

&lt;- Left

Right -&gt;

**Vehicle Orientation** **Forwards** **Backwards**

Settings

Hide

Save Image

**Compass Heading:**

° True

**GPS Location and Status**

Lat: 39° 0' 3.25" N

Lon: 119° 46' 1.17" W

Apprx. Err: ± 47 Feet

Elev: 4647 ± 85 Feet

Fix is 3D

Data Display Dialog

## Displaying Station Data

	Distance	Grade	Cross Slope	Tread Width	Surface Type	Surface Category	Clearance Width	Latitude	Longitude	Elevation
1	0.0	2.9	3.0	55	Sand	Soft	None	39.28859066	-119.269130932	4186
2	18.5	-3.8	-3.1	36	Sand	Soft	None	39.2885514499	-119.269075107	4192
3	38.3	-12.6	-6.6	24	Sand	Soft	None	39.2885110842	-119.269005921	4199
4	44.4	-29.9	1.0	24	Sand	Soft	None	39.2885371239	-119.268995288	4192
5	47.1	-25.5	4.6	24	Sand	Soft	None	39.2885095119	-119.26897125	4204
6	58.1	-3.1	0.8	60	Sand	Very Soft	None	39.2885143516	-119.268944371	4199
7	74.6	-2.6	0.3	60	Sand	Very Soft	None	39.2885332632	-119.268972985	4205
8	111.7	-2.6	2.3	36	Sand	Very Soft	None	39.2885871957	-119.268921899	4207
9	138.3	-3.4	-2.5	36	Sand	Very Soft	None	39.288621916	-119.268795597	4198
10	169.4	-2.1	-2.5	60	Sand	Very Soft	None	39.2886492561	-119.268722114	4198
11	198.4	-13.8	1.4	60	Sand	Very Soft	None	39.2887259594	-119.268638022	4194
12	211.9	-9.9	-5.2	60	Sand	Very Soft	None	39.2887591255	-119.268645306	4193
13	232.4	-1.1	-0.5	36	Sand	Very Soft	None	39.2888121465	-119.268572287	4195
14	267.6	-14.2	-6.2	36	Sand	Very Soft	None	39.2888911275	-119.268517356	4197
15	285.8	-15.2	0.2	36	Sand	Very Soft	None	39.2889150352	-119.26848041	4194
16	298.5	-4.4	-7.6	36	Sand	Very Soft	None	39.288954107	-119.268444286	4187
17	314.6	19.3	11.1	60	Sand	Very Soft	None	39.2890000089	-119.26837381	4181
18	335.1	13.5	3.4	36	Sand	Very Soft	None	39.2890345871	-119.268342138	4185
19	344.4	19.0	1.3	36	Sand	Very Soft	None	39.2890442678	-119.268343847	4192
20	354.2	25.2	-5.8	36	Sand	Very Soft	None	39.2890621971	-119.268358601	4187
21	370.1	17.8	3.9	36	Sand	Very Soft	None	39.2890809063	-119.268384088	4190
22	390.5	5.7	2.4	36	Sand	Very Soft	None	39.2891315861	-119.268447848	4198

Edit Data

Apply Changes

Discard Changes

Alarm Settings



### Enable Alarms and Set Alarm Thresholds

#### Grade

Alarm Enabled

Limit (%)

#### Limit Type

- Amount of Change
- Absolute Percent

#### Cross Slope

Alarm Enabled

Limit (%)

#### Limit Type

- Amount of Change
- Absolute Percent

#### Distance

Alarm Enabled

Feet

#### Outslope to Inslope Changes

Alarm Enabled

Done

Cancel

Distance:

Type:

Description:

**Zone**

Trail Bed  Visual

Remaining Tread:  in

**Dimensions**

Units of Measure:

L  W  H

Quantity:  Ending Distance:

End Distance Reminder

**Optional Data**

Recommended Action:

Materials Needed:

**For a Built Feature: Is this feature Accessible?**

Yes  No  This is not a Built Feature

	Distance	Feature Type	E D
34	6374.1	Sign	<input type="checkbox"/>
35	6413.9	Picnic Area	<input type="checkbox"/>
36	6606.2	Sign	<input type="checkbox"/>
37	6606.2	Bridge	<input type="checkbox"/>
38	6618.4	Restroom	<input type="checkbox"/>
39	6627.9	Parking	<input type="checkbox"/>

**Record Feature**

**Stations**

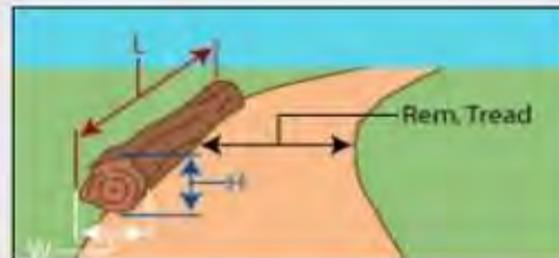
**Manual Entry**

**Edit Feature**

**Copy Feature**

**Delete Feature**

**Rotational Penetrometer Data**



Settings

Hide

Save Image

Rotational Penetrometer Data ✕

	Firmness	Stability
1	0.23	0.68
2	0.27	0.74
3	0.00	
4		
5		
Avg	0.25	0.71

Wet  Done



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through research, design & education*