BPA Fish and Wildlife

BPA Fish and Wildlife Division
Process Improvement Initiative

March 2005 Council Update

Portland, Oregon

BPA Fish and Wildlife

Today's Presentation

Our agenda.

1. **Illustrate What Reporting will be Available through Pisces in 2005**
   Examine a sample catalog of reporting Pisces will deliver this year. Present BPA's approach to estimating financial information by work element.

2. **Review Challenges Associated with Reporting Information that is "Less Clean"**
   Solicit the Council's input on how to handle aspects of the program that overlap species, geographies, etc.

3. **Review BPA's Recommended Approach for Gathering Location Information**
   Discuss various options for gathering project information to be presented in a GIS system connected to Pisces.

4. **Building a Decision Support Infrastructure for the Council**
   Forthcoming materials on the ability for the Council to create customer reports.

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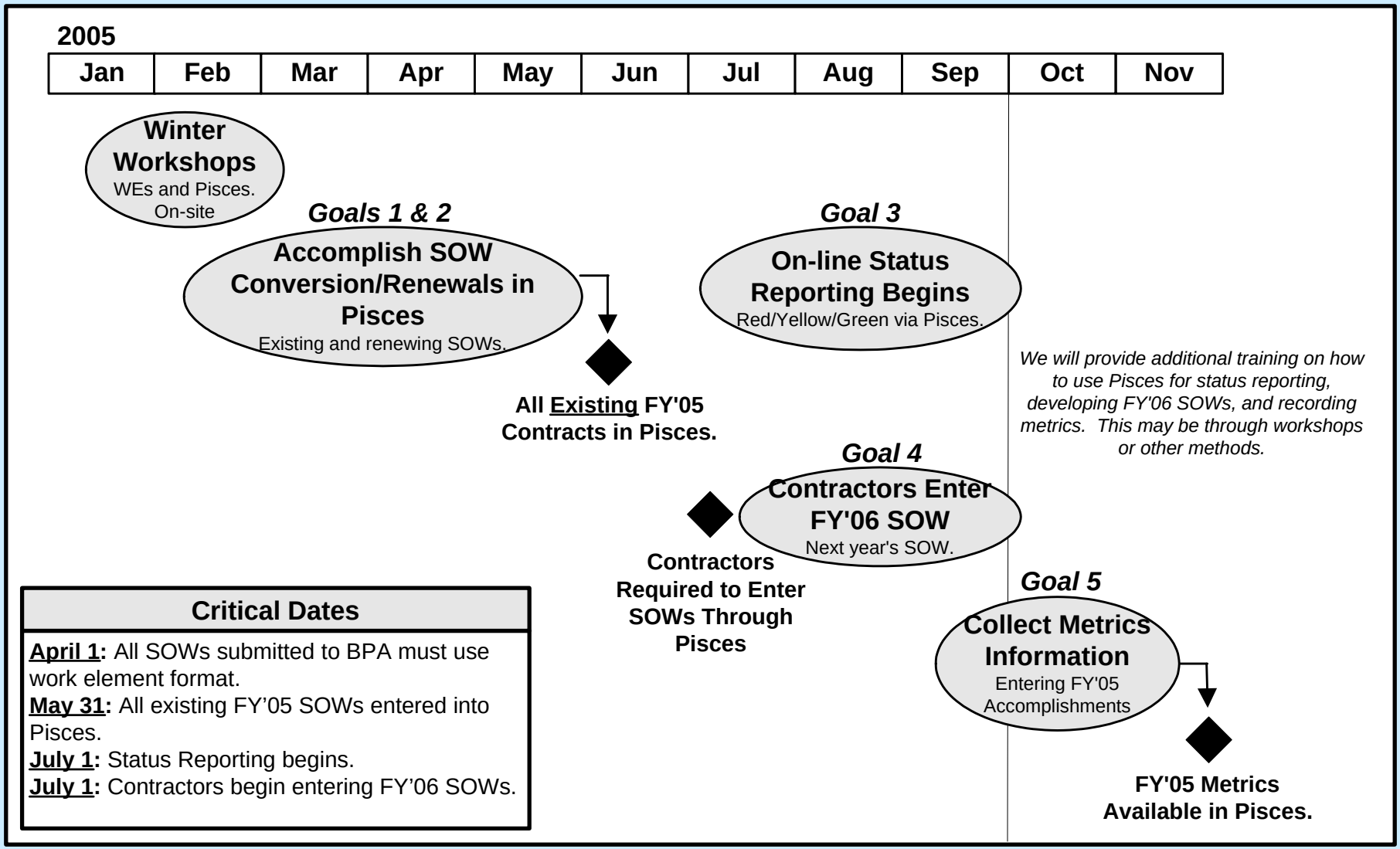
Implementation Schedule for FY'05

The schedule for FY'2005:



Critical Dates

April 1: All SOWs submitted to BPA must use work element format.
May 31: All existing FY'05 SOWs entered into Pisces.
July 1: Status Reporting begins.
July 1: Contractors begin entering FY'06 SOWs.

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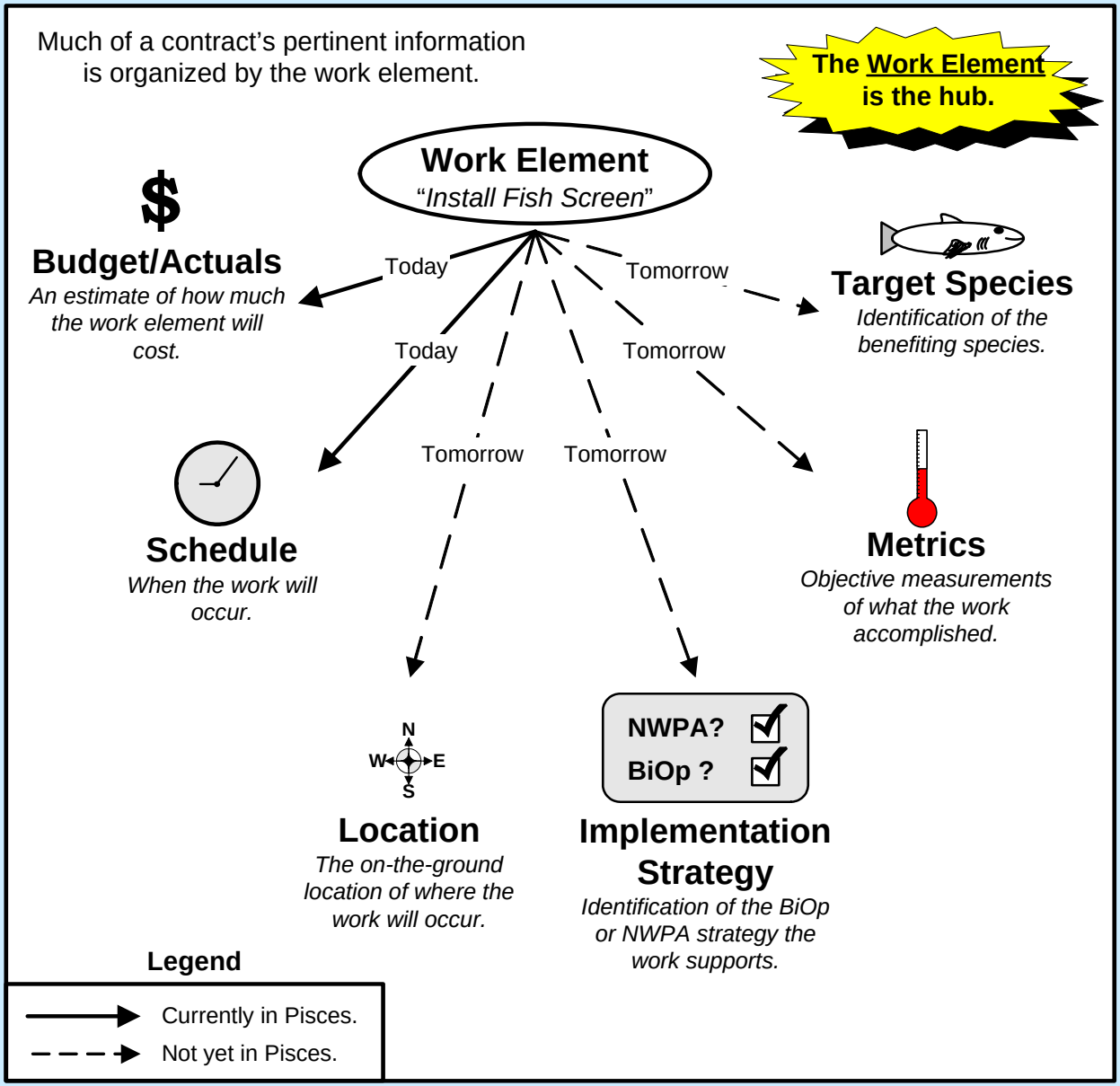
Data is Organized by Work Element

- You may recall from prior presentations that most project information is organized around the work element.
- Detailed reports are driven by work elements. For example, if you want to be able to report on a project action, it needs to be identified in the SOW as a work element.
- O&M and Environmental Compliance activities are now separate work elements – enables proper reporting.



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Examples of Reporting that Pisces will support

Pisces will enable "slicing and dicing" program information in a variety of ways.

Below is a partial, sample catalog:

Project Cost Reporting	• Budget/spending by geographic area, such as state. • Budget/spending by target species, such as Chinook, Coho, etc. and listed vs. non-listed species. • Budget/spending on O&M and environmental compliance. • Budget/spending on type of work such as passage improvements, planting vegetation, or any other work element. • Budget/spending by specific contractor or type of organization such as state, federal, tribal, etc. • Budget/spending to accomplish specific metrics such as miles of habitat accessed or acres of vegetation planted.
Biological Metrics Reporting	• Metrics accomplished by geographic area, such as state. • Metrics accomplished by target species, such as Chinook, Coho, etc. and listed vs. non-listed species. • Metrics accomplished by specific contractor or type of organization such as state, federal, tribal.
Geographical Reporting	• For a geography, total budget/spending. • For a geography, target species addressed, such as Chinook, Coho, etc. and listed vs. non-listed species. • For a geography, type of work such as passage improvements, planting vegetation, or any other work element. • For a geography, work by specific contractor or type of organization such as state, federal, tribal, etc. • For a geography, metrics accomplished such as miles of habitat accessed or acres of vegetation planted.
Any Other Spoke of the WE Hub	• Reporting the cross-references any subject matter area that is organized by work element.

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Process Improvement

Where Reporting Will be Available

Reports will be accessible through Pisces or the web.

Pisces User

A **Pisces User** is anyone with enough interest in the program to learn how to use the application.

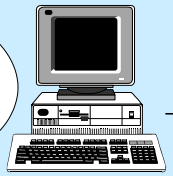
A **Public User** is anyone who desires program information without being involved enough to learn Pisces.

Public User

The Pisces User interacts with the Pisces system, runs Pisces reports, and uses the website for business and technical guidance.

The Public User accesses summary program information and project profiles that they can select through on-line GIS maps.

Pisces communicates with BPA over the internet, but runs in an application window instead of a web browser.



Pisces System

Technical help and business guidance lives on the external F&W page for both internal PMs and external contractors.

EFW Website

Textual Web Guidance	Web Reports	GIS w/Pisces Data
Documentation and guidance.	*Summary program information and reports.*	*Access to project profiles and reports via GIS.*

Data is available to the Pisces application and EFW website.

Data Layer

BES/PEDS | Pisces DB | GIS DB

The Pisces, BES, and GIS databases share information in a fashion that is transparent to the user, as needed.

The existing GIS database allows F&W to take advantage of existing GIS layers such that by providing the lat/long we can determine the state, county, ESU, HUC, etc.

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Details of Reporting

FY2005 is a good first step.

Details to Know About Pisces Reporting:

- Regarding "Location", Pisces will be able to report by any common geographical construct (GIS layer) such as: state, county, HUC, ESU, congressional district, province, sub basin, utility area, etc.
- Pisces' architecture is flexible enough to accommodate changes in reporting as we learn more about how we want to present information over time.
- However, alterations and development of new reports is not without cost and development time within what is an extremely aggressive schedule.
- We believe progress during 2005 will be a tremendous first step in delivering reporting the program needs.
- However, it will also reveal areas in which we wish to improve the accuracy or level of detail in our reporting.
- Our priority is to be successful with 2005's reporting first, and then use our experience as a basis for developing detailed requirements for improvements.

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Today's Contract Budgeting

Contract Line Item Budget

The line item budget exists for all contracts today and is not being changed by Process Improvement.

Resource	Budget
Labor - Senior Biologist	$20,000
Labor - Engineer	$20,000
Labor - Construction	$50,000
Materials - Fence	$5,000
Materials - Concrete	$2,000
Materials - Screen	$20,000
Materials - Plants	$13,000
Travel - Automobile	$900
Total	**$130,900**

Pisces can not yet store the line item budget but will be able to in the future.

- Today, the program accomplishes budgeting by labor, travel, materials, etc. We call this the "*Contract Line Item Budget*".
- Contract line item budgets are created for the entire contract, and are not broken down by the type of work, now represented by a work element.
- The result is that we know the total for what will be spent on a type of cost, such as biologist labor, but not how much biologist labor will contribute to *installing a fish screen* versus *planting vegetation*.

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Budget and Actual Spending by WE

The work element estimate is in addition to the contract line item budget.

Work Element Estimates

Work Element	**Budget**
Install Fish Screen	$87,000
Install Fence	$21,000
Plant Vegetation	$22,000
Manage & Administer Project	$ 8,000
Produce Annual Report	$ 3,000
Total	**$141,000**

Overhead is not called out separately because it can be obtained form the line item budget.

- Based on feedback from the Summer 2004 workshops, the overwhelming sentiment from contractors and BPA project managers was not to require a line item budgeting detail for every work element.
- Instead, Pisces accepts an estimate of total spending for every work element in a SOW.
- This approach provides the program with the reporting it needs, without directing too many resources towards collecting excessive detail.
- Estimating is a powerful tool that can be extremely accurate under the right conditions. Some will estimate high, others low, but in the end, these discrepancies become less of an issue when reporting across all projects.
- Estimates are effective for enabling programmatic reporting, but do not enable meaningful comparisons of projects on their own.
- At the end of the year, contractors will create estimates for actual spending that reflect their true performance.

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The Following Pages...

There are some challenges associated with reporting certain aspects of the F&W program.

The following pages contain more detail than we normally cover in a Council meeting. Below are a few notes to consider:

- Our desire is to share some of the challenges associated with reporting and gather the Council's input on a few key topics.
- Pisces is flexible and reporting is by no means set in stone.
- The caveat: requiring our contractors to collect more information in order to support more detailed reporting takes time and cost away from their primary implementation tasks.
- The challenge: determine what level of information is required and worth the cost to collect.
- We feel the current design strikes an effective balance by delivering the level of detail the program needs, while minimizing the cost and effort associated with collecting it.
- This is a transition year. This is our first cut. The best tool to determine requirements will be reports generated at the end of 2005. Our recommendation: use 2005 reports to determine more detailed reporting requirements.
- In many cases, we will be able to incorporate Council feedback and changes immediately.
- However, FY2005 is considered to be a transition year.

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Reporting Foundational Contract Costs

Foundational costs are those that are required to execute a contract, but which are not tightly associated with actionable work elements.

Contract Information

WE 1 - Project Management	$10,000
WE 2 - Landowner Coordination	$10,000
WE 3 - Install Fish Screen	$25,000
WE 4 - Install Fish Passage Improvement	$45,000
WE 5 - Install Fence	$10,000
Contract Total	**$100,000**

Foundational costs contribute to numerous metrics and locations.

Metrics and location are captured for actionable work elements, not for foundational costs.

Sum All Contracts

Program Level Report - An Aggregate of All Contracts

Project Management Total	$10M
Landowner Coordination Total	$20M
Foundational Costs Total = $30M	
Install Fish Screen Total	$20M
Install Fish Passage Imp. Total	$25M
Install Fence Total	$5M
Others…	$59M...
On-the-ground Total = $109M	

How should we make reporting of on-the-ground costs incorporate foundational activities?

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Allocating Foundational Costs

There are many ways to allocate costs…

Option #1 - Report on Foundational Costs Separately

Species Report

Installing Fish Screens

- For Chinook $5M
- For Steelhead $10M
- For Chum $5M

** Does not include foundational costs such as project management and landowner coordination

Option #2 - Allocate Foundational Costs to certain Work Elements

Species Report

Installing Fish Screens

- For Chinook $5M
- For Steelhead $10M
- For Chum $5M

** Includes foundational costs such as project management and landowner coordination that were allocated by the xyz method...

Total Fish Screen Spending

- Chinook = Allocated $7.5M
- Steelhead = Allocated $15M
- Chum = Allocated $6.2M

Allocate the foundational costs by adding them to the species total.

- Pisces will have the ability to produce reports both ways at the same time, or pursue a third method later on.
- There are many different algorithms that could be used to allocate foundational costs. Once drafts of the reports are available, we will be in better position to determine how we wish to report the information.
- Recommendation: *Expect to look a the data both ways. BPA to research and recommend allocation methods with the involvement of CBFWA and Council staff.*

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Contracts Can Target Multiple Species

Some actions and metrics impact more than one species.

Contract

Work Element	Cost	Metrics	Species
Fish Passage Imp.	$100K	20 river mi.	Chinook / Chum

A cost that benefits two species can seldom be split in half to represent each.

Benefit	Cost
Passage Improvement for Chum	$50K
Passage Improvement for Chinook	$50K

A metrics benefit for two species can not be divided because each species truly receives the full benefit.

Benefit	Metric
Passage Improvement for Chum	10 miles
Passage Improvement for Chinook	10 miles

- Some project actions benefit multiple species, and can not be split. Counting metrics has a similar problem.
- Other actions, such as rearing fish in a hatchery, can easily be split by species to support more exact reporting.
- A good test is to consider if a project action could be completed with a smaller budget if it served fewer species…most often, serving fewer species does not reduce cost.

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Programmatic Reporting By Species

Some reporting is intended to be rolled-up at the program level.

Spending by Species

Species Report

Total Spending by Species

Total for Chinook	$50M
• For Chinook Only	$2M
• Chinook and Other	$48M
Total for Chum	$100M
• Chum Only	$20M
• Chum and Other	$80M

Some amounts are "double-counted" because they apply to multiple species. →

The result is the program will report more money than its total budget was applied across species. →

Total for All Species $350M

Accomplishments by Species

Species Report

Total Metrics by Species

Total for Chinook	30 miles
• For Chinook Only	0 miles
• Chinook and Other	30 miles
Total for Chum	50 miles
• Chum Only	5 miles
• Chum and Other	45 miles

Total for All Species 270 miles

The same is true for metrics.

- Pisces can "slice and dice" the information a variety of ways, delivering the report that makes the most sense for the application.

- Recommendation: *Split work elements by species when feasible/important. Double count elsewhere.*

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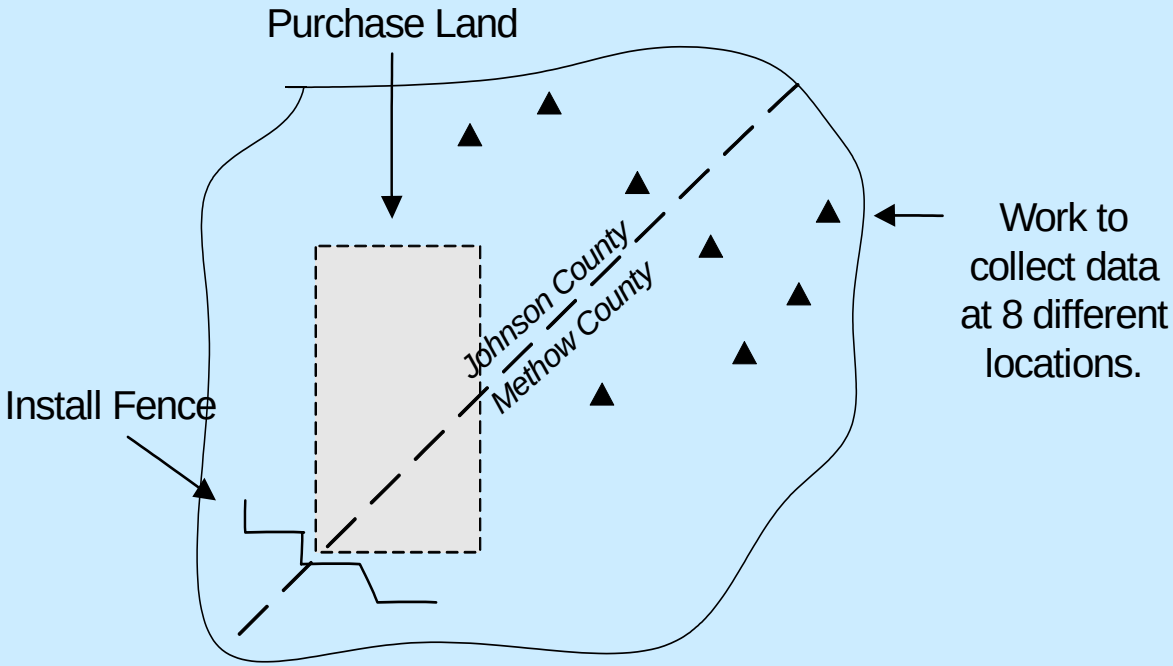
Reporting By Geography

Geographic reporting is very important.



- Given all of the geographical constructs we wish to report by (state, county, ESU, etc.) it is inevitable that some of our actions will span more than one area.

- We intend to apply BPA's GIS system to programmatically allocate costs across geographies.

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How To Collect Location Information

There are many options for collecting information about the location of program actions.

There are Four Major Options:

We recommend using the Northwest GIS Data Browser as the primary collection and input method because:

- Of all the options, this approach jumped out as the best balance of accuracy and cost.
- Location information already collected on maps or other GIS systems can be entered easily.
- Documenting a location doesn't require going to the field to visit each site.
- While GPS units can be helpful in collecting data in the field, they are not required.
- Information can be gathered at any time, in any season, and anywhere that has an internet connection.

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Effort to Gather Location Information

The reporting is only as complete as the information collected.

- Our goal was to choose a method that enables us to develop work element-based location information as quickly and inexpensively for FY2005.

- The ultimate solution will likely draw on a combination of all four of the methods presented, using each one as it may make the most sense in special situations.

- Our ability to create reports at the end of 2005 relies on a project that includes:
  - BPA's effort to develop the Pisces and GIS functionality.
  - A program-wide effort for Contractors to gather and input location, for which they will want to be compensated.
  - Effort by BPA project managers to oversee and ensure quality in the data collected.
  - Development of a catalog of reports.

- Some organizations already have a wealth of location information, sometimes in their own GIS systems, that we will be able to leverage.