



U.S. Fish & Wildlife Service

# National Conservation Training Center

## Training Announcement

### Addressing Climate-related Uncertainty for Natural Resource Management

ALC3192

#### Course Description

This course provides participants with a foundation in structured decision making in the context of natural resource management problems addressing climate-related uncertainty. It will illustrate applications to water resource management, mitigation and endangered species decisions. A solid foundation in structured decision making begins with understanding current practices, theory, and noteworthy case studies including examples assessing climate change impacts. Adaptive management is framed within the context of structured decision making, with an emphasis on uncertainty about responses to management actions and the value of reducing that uncertainty to improve management. You will learn practical approaches to critical thinking, logic, reasoning, and structuring decisions that support your work. You will discover techniques for calculating the expected value of information to reveal the sensitivity of the decision to new information. This course gives you the skills to develop structured approaches in order to make a recommendation or decision that is explicit, transparent, and clear, even when faced with significant uncertainty.



#### Objectives

At the end of this course, you will be able to

- Identify expected ecological impacts of climate change
- Apply the fundamental elements of decision analysis to reach a recommendation that addresses climate-related impacts and uncertainties
- Describe the process of using adaptive management for reducing uncertainty in managing natural resources within existing regulatory frameworks
- Learn how to classify and incorporate different types of uncertainty about system change
- Articulate the role of predictive models in adaptive management and know the desired qualities of a set of alternative models when faced with system change
- Compare modes of learning about system change and understand when and how to use different approaches
- Perform a sensitivity analysis of the decision to new information and calculate the risk and tradeoffs between learning before acting, learning while acting, and acting then learning

#### Date

February 11-15, 2013

#### Location

National Conservation Training Center,  
Shepherdstown, WV

#### Who Should Attend

Natural resource managers and conservation professionals

#### Length

4.5 days

#### College Credit

2 CEUs

#### Tuition

For this first offering, there is no tuition or registration fee associated with the course.

#### To Register

Register online at <http://training.fws.gov> using DOI Learn, the Department of the Interior's Learning Management System.

#### Availability

Course may be offered annually.

#### Course Development

In partnership with staff from FWS, NOAA, and USGS.

#### Contact

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*Recognize uncertainty.  
Select the best decision in  
the face of uncertainty.  
Reduce uncertainty when  
relevant.*

(Conroy *et al.* 2011)