

I-15, Virgin River Bridge No. 6 Environmental Awareness Training

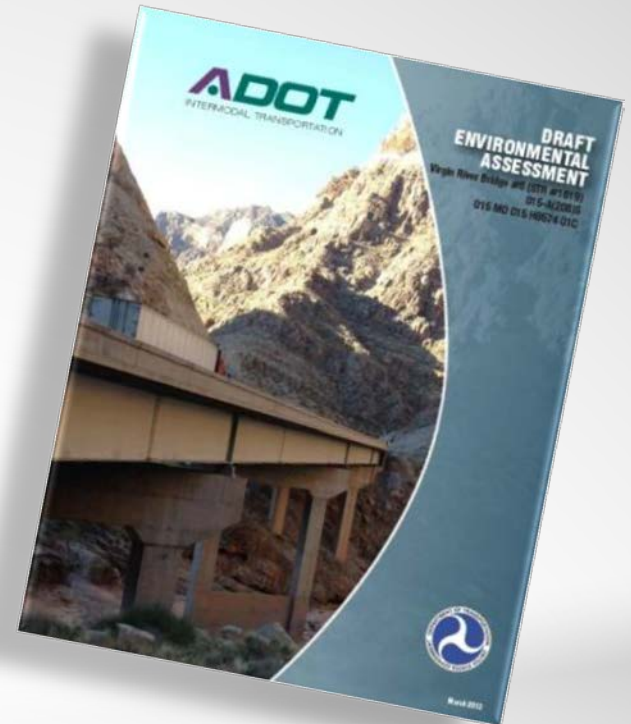


March 31, 2014

Training Overview

Protecting Sensitive Resources

- ▶ Introduction
- ▶ Environmental consequences and mitigation
- ▶ Biological resources and protected species
- ▶ Water resources
- ▶ Mitigation measures
- ▶ Biological monitoring
- ▶ Issue escalation



Environmental Impacts and Mitigation

Biological Resources

- ▶ Bureau of Land Management, U.S. Fish and Wildlife Service, and Arizona Game and Fish involvement
- ▶ Assessed threatened and endangered species, BLM sensitive species, native plants, invasive species, and riparian areas
- ▶ Mitigation to minimize impacts to fish, birds, and habitat



Virgin River Chub

Endangered

- ▶ Critical habitat
- ▶ Found only in Virgin River
- ▶ Deep, swift waters
- ▶ Spawn in late spring or early summer
- ▶ Up to 18" long
- ▶ Threats:
 - Changes to habitat
 - Exotic fishes



Woundfin

Endangered

- ▶ Critical habitat
- ▶ Adapted to turbid water
- ▶ Spine on dorsal fin
- ▶ Spawns in spring in swift, shallow water
- ▶ 2" long
- ▶ Threats:
 - Changes to habitat
 - Exotic fishes



Southwestern Willow Flycatcher

Endangered

- ▶ **Critical habitat**
- ▶ **Adapted to saltcedar habitat**
- ▶ **Prefers to be near water**
- ▶ **Insectivores**
- ▶ **4-5" long**
- ▶ **Threats:**
 - **Habitat degradation/loss**
 - **Nest parasitism by other birds**



California Condor

Endangered

- ▶ Almost extinct in 1980s
- ▶ Attracted to trash
- ▶ 9-10' wingspan
- ▶ Threats:
 - Lead poisoning
 - Power line collisions
 - Habitat loss
- ▶ Report sightings to Resident Engineer



Mojave Desert Tortoise

Threatened

- ▶ Herbivores
- ▶ High mortality
- ▶ Live 50-80 years
- ▶ Near washes
- ▶ Up to 15" long
- ▶ Burrows to escape heat and hibernate
- ▶ Report sightings to ADOT Resident Engineer; do not touch, collect, or harass
- ▶ May seek shade under parked vehicles



Special Status Species

Protecting Rare Species

- ▶ **Avoid interaction with California condors; report sightings to ADOT Resident Engineer**
- ▶ **Report any fish mortalities**
- ▶ **Report encounters with Mojave desert tortoises – DO NOT TOUCH OR HARASS**
- ▶ **Report encounters with Southwestern willow flycatchers**
- ▶ **Avoid interaction with desert bighorn sheep; allow them to leave on their own and report sightings**

Invasive Species

Protecting Native Species

- ▶ Wash all equipment before entering site
- ▶ Inspect and clean all equipment before leaving the site
- ▶ Invasive plants will be treated with an approved herbicide and photosensitive dye
- ▶ Avoid dyed areas whenever possible



Environmental Impacts and Mitigation

Water Resources

- ▶ U.S. Army Corps of Engineers, Bureau of Land Management, and National Park Service involvement
- ▶ Clean Water Act protection
- ▶ Wetlands and open water
- ▶ Mitigation to minimize impacts to water quality





Work in and around the Virgin River

Protecting Water Quality

- ▶ No removal of water from the Virgin River
- ▶ No waste water can be placed in the Virgin River
- ▶ All work in the low-flow channel must be authorized by the ADOT Engineer
- ▶ All construction in the gorge must be performed in authorized work areas
- ▶ Fish biologists must monitor any work disturbing the active stream channel
- ▶ Stop construction during high flows or flooding
- ▶ Evacuate the gorge before temporary bridge removal

Work in the 100-Year Floodplain

Protecting Water Quality

- ▶ **Biological monitor must be present for refueling in the floodplain**
- ▶ **Mark limits of the floodplain prior to construction**
- ▶ **Only store materials approved by the ADOT Resident Engineer in the floodplain**
- ▶ **Use best management practices to keep anything from washing into the Virgin River**
- ▶ **Remove excess construction materials from the floodplain within 10 calendar days**

Pollution Prevention

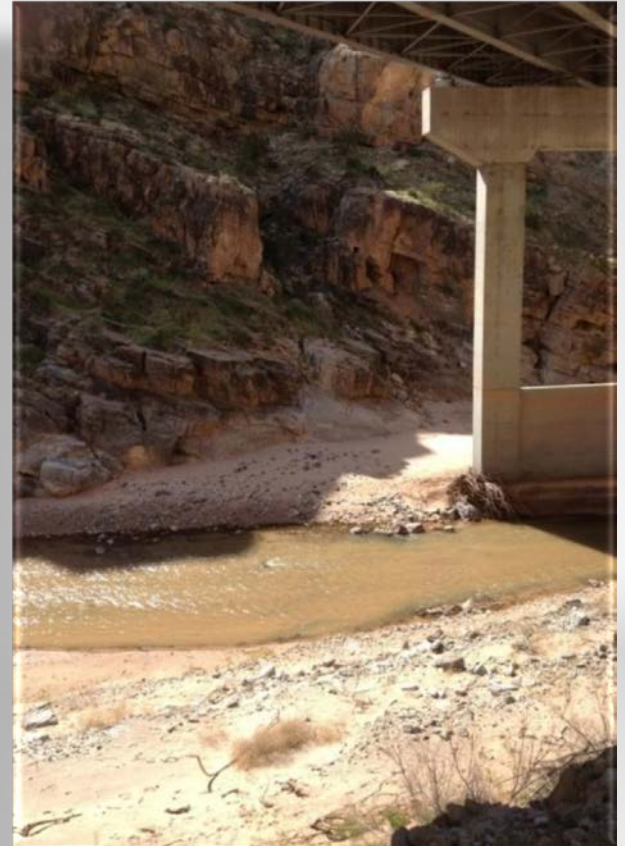
Protecting Water Quality

- ▶ **Follow the Spill Prevention Plan**
- ▶ **Keep a hazardous materials spill kit onsite during construction**
- ▶ **Use best management practices for refueling both within and outside of the 100-year floodplain**
- ▶ **Temporary staging areas must include a berm or excavated ditches to impound leaks or spills**
- ▶ **Wastewater must be disposed of off-site**
- ▶ **Implement dust control measures**

Good Housekeeping

Basics for Every Day

- ▶ Keep the work site free of litter, trash, and construction debris
- ▶ Keep construction limits clearly marked
- ▶ All right-of-way fencing must remain in place to prevent livestock from entering the site
- ▶ Avoid roadside memorials



Biological Monitoring

Ensuring Compliance with Environmental Mitigation

- ▶ AGFD or ADOT biologist
- ▶ Contact for all environmental issues
- ▶ Onsite throughout construction
- ▶ Specialized fish biologists for placement of fish nets
- ▶ Observes and documents impacts to sensitive biological and water resources
- ▶ Files daily and weekly reports with ADOT and BLM



Issue Escalation

Proactively Seeking Resolution

Level	ADOT	Partner
Step 1. Operations	Biological Monitor	(Monitor escalates directly to ADOT Resident Engineer)
Step 2. PM/Engineer	Adam Carreon	Johnnie Mata 602.717.2051 Kevin Abernathy 801.509.8811
Step 3. Management	Chad Auker Audra Merrick	Steve Campbell 602.721.3781 Jim Meadows 602.721.2158 Linn Bogart 801.509.8808
Step 4. Senior Management	Todd Emery	Mark Soyster 602.721.4702 Guy Wadsworth 801.576.1453



**Thank you for your
attention!**

