

Agricultural IPM Field Trip
8th International IPM Symposium – Salt Lake City, UT

Monday, March 23, 2015 1:00pm - 5:00pm

Welcome! Your host for this field trip is Denise DeBusk (denise.debusk@navy.mil) of the Naval Facilities Engineering Command-Atlantic.

Following a 45-minute ride north through Utah's "Fruit Way," your first stop will be Pettingill's Fruit Farm, in Willard UT (<http://www.facebook.com/pages/pettingills-fruit-farm/>). Once there, Utah State University Box Elder County Extension Director Mike Pace (mike.pace@usu.edu) will present his research on pheromone mating disruption to manage the Prionus Root Borer (*Prionus californicus*). Please see the fact sheet attached.

Heading back toward Salt Lake City, your second stop will be at the Legacy Nature Preserve near Woods Cross, UT (See <http://www.environment.fhwa.dot.gov/ecosystems/eei/ut06.asp> - copy attached). Eric McCulley (EMcCulley@intermountainaquatics.com) of Intermountain Aquatics will meet the bus and discuss his past involvement in developing the preserve, especially as related to the invasive *Phragmites* weed.

En route, Utah Pests Team member Ricardo Ramirez (ricardo.ramirez@usu.edu) will provide some background on farming in this area of Utah, along with some information on current pest and disease pressures. See more at <http://utahpests.usu.edu> .

Acknowledgements

In addition to your presenters today, special thanks go to the entire Utah Pests Team for their assistance in planning and coordinating this trip, including Diane Alston, Marion Murray, and Katie Wagner.



Utah's Legacy Nature Preserve

"Legacy" is an apt name for Utah's Legacy Nature Preserve because the 2,100-acre wasteland-turned-wetland exists today—and in perpetuity—as a dynamic, landscape-scale ecosystem, developed through joint efforts and solidly supported by resource agencies, local governments, and "watchdog" environmental groups.

The preserve lies between the Great Salt Lake and the 14-mile Legacy Parkway (Utah's shared solution, along with commuter rail and Interstate 15, to traffic congestion within Davis County and the Salt Lake City corridor). To offset the projected impacts of the parkway on wetlands and wildlife, the Utah Department of Transportation developed the preserve as an integral component of the parkway.

Like the future parkway, the preserve will link the nearby Wasatch Mountains with the Greater Salt Lake Ecosystem (GSLE). Each year, more than 5 million migratory birds fly over the GSLE--a site now considered to have hemispheric significance. The GSLE holds the world's largest breeding population of White-faced Ibis and Wilson's Phalarope, the world's largest assemblage of Snowy Plovers, and a large colony of American White Pelicans. Three of these species are also found on the Legacy Nature Preserve. In fact, the preserve hosts more than 100 migratory bird species, including countless numbers of ducks, shorebirds, sparrows, bald eagles, long-billed curlews, short-eared owls, and burrowing owls.

If "legacy" is an apt name for the preserve, "removal" is an appropriate word for much of the initial work on the site. Before hydrology and vegetation could be restored to the preserve, crews had to remove more than 3,000 dump-truck loads of debris and fill material. They took away 900 old tires, extensive cement piles, and 5 car frames; and they removed major utilities and more than 38,000 feet of dirt roads.

To eradicate noxious weeds, the crews combined traditional herbicide-spraying with innovative techniques like goat-grazing. Weed removal by goats often works well, because the animals are adapted to weeds and usually prefer them to native grasses. More than 1,000 goats were used on the preserve to graze down weeds. They caused little disturbance to the landscape and, as they suppressed thistles and other weeds, native species began to take hold.

Since approximately 80 percent of the preserve had been subject to development, the project won broad endorsement from local governments (Davis County, North Salt Lake City, Woods Cross City, West Bountiful City, and Centerville City), federal and state



(UDOT)



Wilson's Phalarope (UDOT)



American Avocet (UDOT)

agencies (U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, FHWA, Utah Division of Wildlife Resources, and Utah Division of Water Quality), and public-interest and environmental organizations (Sierra Club, Friends of Great Salt Lake, The Nature Conservancy, and Utahns for Better Transportation).

The Legacy Nature Preserve is starting to function again as a naturally self-sustaining ecosystem. It's well on its way to becoming a mosaic of bare mudflats, seasonal wet meadow, deep emergent marshes, meandering open water channels surrounded by lush vegetation and trees, and uplands with tall grasses and shrubs. Combined, these habitats will continue to provide a diverse habitat for abundant wildlife. They'll be protected over time by a collaborative Adaptive Management Plan carried out by a full-time preserve manager; and a science advisory committee will evaluate, encourage, and support research interests and activities on the preserve (for example, a multi-year study on the indirect impacts of highway noise on wildlife and birds).

For more information, contact John Thomas, johnthomas@utah.gov

<http://www.environment.fhwa.dot.gov/ecosystems/eei/ut06.asp>