

Frequently Asked Questions

Rehabilitation of Wildlife Drive, J.N. "Ding" Darling National Wildlife Refuge

1. What does this project include?

This project includes the resurfacing of Wildlife Drive and the existing parking areas at the observation tower, Wulfert Keys Trail, and the Calusa Shell Mound Trail. The project also includes replacement of Water Control Structure 5 in the west impoundment and construction of a new box culvert in the curve of the road approximately 0.3 miles past the Calusa Shell Mound Trail (currently known as Alligator Curve).

2. When will the project be implemented?

According to the current schedule, the project will start on or about May 1, 2013, and be completed by October 1, 2013.

3. What type of pavement is on Wildlife Drive now?

The current pavement is a cold open grade emulsified mix (OGEM). Open-graded mixes are designed to be water permeable. They are made of crushed stone or gravel (i.e. aggregate) and little or no fine materials or sand with asphalt cement as a binder. This type of pavement contains a high percentage of air pockets or pores in the asphalt that provide channels for stormwater to pass through the pavement.

4. Why are we repaving Wildlife Drive?

The existing pavement has passed its life expectancy, and is no longer functioning as a permeable surface. The Federal Highway Administration has cored the asphalt and determined that the pores in the asphalt have been clogged with silt over the years. The conditions on Wildlife Drive, such as low-speed traffic and excessive dirt or sand on the roadway, tend to clog the pores. The road is also losing aggregate and crumbling.

5. Who designed the project and what is the funding source?

The repaving project was designed and funded by the Federal Highway Administration (FHWA) with input from refuge staff, the USFWS' Regional Transportation/FHWA Program Coordinator, and the Regional Facilities Management Coordinator. Replacement of Water Control Structure 5 was funded by Region 4 of the USFWS, and construction of the new water control structure was funded by the refuge.

6. What material will be used to repave Wildlife Drive?

The drive will be repaved with a hot asphalt concrete pavement. This is the most common surfacing for paved roads in the United States. This pavement is composed of a blend of coarse and fine aggregates and a mineral filler with asphalt cement as a binder.

7. Why was this type of pavement selected?

The asphalt concrete pavement was selected due to the long life expectancy, low cost, and low maintenance requirements compared to the OGEM.

8. What are the life expectancy, cost, and maintenance requirements for the OGEM pavement?

The open grade or porous pavement's life expectancy is approximately 8 to 10 years. In 2010, the FHWA estimated the cost for the pavement to be \$2.36 million dollars. The cost is high because all 5 to 6 inches of the existing pavement would need to be removed, the base scarified and re-compacted, and then a 6-inch layer of OGEM would be laid down. Additionally, this surface would require frequent maintenance to clean the pores. The pores are essential to the mix's proper function and manufacturers recommend that anything that tends to clog these pores should be avoided. As noted above, the low-speed traffic and sandy conditions along Wildlife Drive contribute to clogged pores.

9. What are the life expectancy, cost, and maintenance requirements for the asphalt concrete pavement?

The asphalt concrete pavement's life expectancy is approximately 20 years. In 2010, the FHWA estimated the cost to for the pavement to be \$810 thousand. Asphalt prices have increased in the last two years, and the current cost is \$1.08 million dollars. The cost is lower than the OGEM because the existing pavement would not need to be completely removed. The top 2 inches of the existing road would be milled off and then overlaid with a 2-inch layer of asphalt concrete. This surface is durable and requires little maintenance. Initially, the surface will be black but will fade to gray over time.

10. Will the footprint of Wildlife Drive change?

Yes, there will be some changes to the Wildlife Drive although the 4.23-mile length will remain the same. Changes will include: installation of cellular confinement systems and gravel in the parking shoulders to prevent erosion; and the relocation and addition of speed bumps. The shoulders will be level with the pavement and gently sloped.

11. Will designated parking areas be expanded?

A cellular confinement system filled with crushed stone/gravel will be installed at the shoulders where shoulder erosion occurs due to visitor parking. These shoulders will not be seeded and visitors can continue parking their vehicles on the shoulders on the right side of the Wildlife Drive without causing additional erosion. The expected lifespan of the cellular confinement systems is 20 years. Markings for 10 parallel parking spaces will be installed at the Cross Dike trail.

12. Will a bike lane be added?

A bike lane will NOT be added.

13. What will be done to reduce storm water runoff and for erosion control during and after the project?

Filter berms will be used during construction to control erosion and prevent sediment-laden runoff from entering the adjacent waters. The bio-degradable berms are made of a tubular sock filled with compost or mulch filter material. The filter berms will be left in place after construction and will absorb any oils that would initially leach from the asphalt. The berms will decompose over time. Turbidity barriers and silt fencing will be used to control erosion for construction of the new box culvert at the Alligator Curve and to replace Water Control Structure 5. During the design of the project, the FHWA determined that most of Wildlife Drive is bordered by long stretches of mangroves that act as a natural buffer, filter and erosion prevention and that construction of additional permanent storm water treatment areas was not

needed. However, cellular confinement, gravel, or sod will be placed in areas along the shoulder where erosion is currently a problem and will also filter runoff. Rip-rap (i.e., large rocks) will be placed around some of the water control structures to prevent erosion and is currently used by the refuge for that purpose. The refuge staff may plant or encourage growth of native vegetation in additional areas along the drive in the future if needed.

14. What type of sod will be used?

Seashore paspalum sod has been specified in the contract. Seashore paspalum (*Paspalum vaginatum*) is a native, salt-tolerant warm season grass sod.

15. Have all regulatory and statutory requirements been met for this project?

The refuge and the FHWA have completed all statutory and regulatory requirements for resurfacing the Wildlife Drive and replacing Water Control Structure 5, including consultation for the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), the National Environmental Protection Act (NEPA), and the Clean Water Act (CWA). Consultation under the ESA and CWA for the new water control structure is completed and ongoing for NHPA and NEPA.

16. Will wildlife be impacted during construction activities?

This project could cause a temporary disturbance to any wildlife, including birds, using the Wildlife Drive or adjacent wetlands during construction activities. No construction activities will occur within the vicinity of the yellow-crowned night-heron rookery until all nestlings have fledged.

17. Will Wildlife Drive and/or Indigo Trail be closed to the public during construction?

Wildlife Drive will be closed to the public during the construction period. Indigo Trail will only be accessible through guided tours conducted by Tarpon Bay Explorers.

18. What can the public do at the refuge while the drive is closed?

All other locations of the refuge will remain OPEN including the Tarpon Bay Recreation Area, Bailey Tract, and the Education Center. Refuge summer programs will still be offered and the schedule will be added to the refuge and society websites. Programs will be offered May through September. In addition to guided tours of Indigo Trail, Tarpon Bay Explorers will offer educational tours to off-site locations (to be determined) while tram tours on the drive are suspended.

19. Will the refuge annual pass expiration date be extended because of the restricted access from May through September?

The expiration date of the annual pass will NOT be extended.

20. Why does the refuge want to construct a new box culvert near the Calusa Shell Mound Trail (i.e., Alligator Curve)?

The box culvert will reconnect an existing tidal creek east of the Wildlife Drive to Kesson Bayou from the west to restore mangrove habitats destroyed during Hurricane Charley in 2004 and ultimately improve water quality within the refuge.

21. Will the new culvert impact alligators?

The number of alligators using this area has significantly declined since the salinity of the impoundments has increased and the basking areas have become overgrown with vegetation. Alligators that are still using the area will most likely be displaced over time as salinity levels increase more with the tidal flow. Thus, the alligator viewing platforms and informational signs along Alligator Curve may be altered. Visitors are encouraged to visit the Bailey Tract for alligator viewing opportunities.

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