

Charlotte Park and Wildlife Refuge  
Tree Pest Protocol

3/21/18

General: Several pests and pathogens are present in the park and in the region that cause the decline and death of trees. Examples include Dutch elm disease, beech necrotic canker, butternut canker, and white pine needle damage syndrome. Other pests are expected in the future, including emerald ash borer (EAB), hemlock woolly adelgid, and possibly Asian long-horned beetle. The current most imminent threat is from EAB. The park will follow best practice guidelines to address these forest pest infestations. Due to high cost and lack of effective or practical treatments, in most cases there will be no action taken to address tree pest problems other than to remove dead trees where they pose a danger to park users. In some instances it may be appropriate to repopulate threatened native species with disease resistant varieties (e.g. disease resistant elms). For some select high-value trees it may be appropriate to treat the trees with insecticide or some other means such as traps or introduction of natural controls to preserve specimens, maintain diversity, or provide a refugia for healthy trees. Insecticide or other treatments that pose a significant risk to people or non-target park flora and fauna are to be avoided.

Emerald Ash Borer: Some ash trees within the park will be selected for treatment to protect them from EAB. Treatments will start when EAB has been confirmed within 12 miles of the park. Due to the high cost of treatment, only a small number will be chosen. These can be identified as to priority – high or medium. If funds are limited, only high priority trees will be treated. Likely candidates for preservation are along the walking trail from the parking lot in Unit P. The only known effective treatment for Emerald Ash Borer is with insecticides such as imidacloprid or Emamectin benzoate. For small diameter trees imidacloprid can be applied by drenching the soil around the tree. For stems greater than 15" DBH (diameter at breast height or 4.5 ft.) the imidacloprid, Emamectin benzoate, or one of the other proven effective insecticides, has to be injected into the cambium. It is anticipated that the treatments will be done by a professional arborist, but the park will explore the efficacy of purchasing an injector and systematic insecticide and having the treatments done by a State certified pesticide applicator. These treatments have to be reapplied every one or two years.