EXISTING POLICIES INVOLVING INVASIVE SPECIES

Formal Policies:

RSO&E - Resource Stewardship

- Report any aquatic invasive species encountered during Vital Signs Monitoring to the associated TVA facility personnel and to the U.S. Fish and Wildlife Service and State authorities.
- Manage aquatic plants in priority treatment areas where plant abundance impedes multiple reservoir uses and to protect native species of plants and animals through prudent application of management practices. Treatments are carried out according to reservoir-specific Master Plans developed with stakeholder input. [note: this is draft - awaiting David Webb's review and edits]
- Vegetation management standards for TVA-owned residential access shoreland, as adopted in the Shoreline Management Initiative, include the following which are related to invasive species:
    - Within the 25-foot shoreline management zone and elsewhere on TVA land, clearing of some specified understory plants (poison ivy, japanese honeysuckle, kudzu, and other plants on a list to be prepared by TVA) would be allowed.
    - The forest floor would be left undisturbed except for removal of specified plants and/or planting of native vegetation.
    - Planting of native trees, shrubs, wildflowers, and ground covers would be allowed to improve or enhance the vegetative cover. TVA would be available, upon request, to assist applicants in selecting the right plants for the site.
    - Vegetation disturbance associated with shoreline stabilization and other shoreline development would be minimized. If removal of trees outside the access/view corridor but within the shoreline management zone is required for bank stabilization projects or other permitted shoreline development, TVA would require replacement with native species.
- The following general condition for TVA-owned residential access shoreland was adopted in the Shoreline Management Initiative:
    - All sediment that accumulates behind sedimentation control devides would be removed and redistributed at an inland site. All disturbed areas would be promptly stabilized. Grass could be used within the access/visual corridor. Native plants would be required for stabilization of disturbed sites elsewhere on the TVA property. Seed and soil would be protected with erosion control netting and/or hay or some other mulch material.
- On TVA flowage easement shoreland, the following standard was adopted in the Shoreline Management Initiative:
    - Removal, modification, or establishment of vegetation on privately owned shoreline subject to a TVA flowage easement would not require TVA

approval. To promote good stewardship, TVA would provide information to landowners about how to enhance or maintain native vegetation.

TPS - Electric System Projects

- Disturbed areas are planted with temporary or permanent seeding mixtures according to the 1999 Guide for Environmental Protection and Best Management Practices, pp. 130-145. These seeding mixtures may include species considered invasive.

No formal policies regarding invasive species exist for the following organizations:

- RSO&E - Environmental Research & Technology Applications
- RSO&E - Public Power Institute
- TPS - Transmission Operations & Maintenance
- Facilities Management

River Operations

A best management practices plan is required by each Hydroelectric Plant's NPDES permit. The best management practices require regular monitoring for zebra mussels and other invasive species. When the need for corrective action to prevent fouling is identified, treatment plans are developed and submitted to State authorities two months in advance of scheduled treatments of raw water systems with biocides.
[The above policy may also apply to Fossil Power Group and Nuclear]

Informal Policies:

RSO&E

Resource Stewardship

Natural Heritage Project - Natural Areas

- Annual removal of invasive exotic plants from TVA Natural Areas with a focus on the areas under the most serious threat.
- No planting of non-native plant species on or adjacent to any managed area or site regardless of who the owner is.
- Use of fill dirt must be done with extreme caution to prevent the accidental introduction of unwanted species.
- Horse-back riding is prohibited on TVA Natural Areas. This prevents the accidental introduction of unwanted species through droppings.
- Use of the Tennessee EPPC plant list to determine priorities for invasives issues on TVA Natural Areas lands.
- Tracking the presence or absence of invasive plants during annual field visits to TVA Natural Areas.

Natural Resource Management

- Generally operate under the direction of Natural Heritage project staff with respect to invasive exotic control and management work, and have conducted joint control efforts in Natural Areas and a few other places

Environmental Research & Technology Applications

- A wide variety of plants are maintained for research purposes. Plant material considered invasive or aggressive is generally not distributed to the private sector.
- Plants grown in greenhouse studies are confined to the greenhouse and are not grown out of doors.
- No live plants or viable seeds are released outside the experimental units.
- Routine microbial studies are contained in greenhouses or laboratories and appropriate containment and disposal procedures are rigidly adhered to. Samples from the field are collected and processed in the laboratory under containment restrictions as well. No cultures are disposed of prior to autoclave treatment to kill the live cultures.
- In addition to self-imposed controls by AL&WS scientists, genetically engineered organisms are subject to additional controls from USEPA to ensure containment.
- Live algae cells are routinely killed with hypochlorite (Chlorox) before disposal.
- Restrictions on importing soil from outside CONUS or rigid processing requirements prevent introduction of foreign microbial population, spores, or viable seed.
- Plants used in field studies are screened with the appropriate State agency before introduction, and permission to use any plant species in a field experiment is obtained before start-up.

TPS
Electric System Projects - Transmission Line Projects, Substation Projects, Contract Projects, and Telecommunication Projects:

- Kudzu, privet, ivy, or other well known highly invasive vegetative species are not intentionally planted, transferred, or spread during initial clearing, construction, & restoration. However, KY-31 and similar fescues are used on TVA right-of-way for soil stabilization purposes, or if it previously existed on-site, or by the request of a property owner.

Transmission Operations & Maintenance - System Applied Maintenance:

- We sometimes apply herbicides to kudzu and privet hedge. We generally bushhog privet hedge along with other brush in the area, but generally do not bushhog kudzu. If kudzu is climbing a structure, we cut it or apply herbicides.

Facilities Management
TVA General Construction Specification NO. T-1 Site Development, Highway, Railroad, & Bridge Construction is used for sowing/reclamation activities. Section 580 contains Seeds and Seed Rates, and includes some species that may be considered invasive.