Guidelines for River Star and Other Partner Plantings

June 2014

Goals:

Ensure effective use of resources to achieve high plant survival and aesthetically pleasing restoration efforts.

Guidelines:

Following these guidelines is required where Elizabeth River Project is providing significant funding and is strongly suggested for all organizational partner sites to ensure successful planting and survival. River Stars Homes are encouraged to call Sara Felker (392-7135), and River Star Businesses are encouraged to call Pam Boatwright (399-7487) at Elizabeth River Project of assistance, concerns or questions. This form is voluntary if you are using your own resources, but may help you ensure sound investment and help document your efforts for River Star recognition. If you have been offered and are considering significant Elizabeth River Project funds for your site, submit a copy of this form 60 days before your preferred planting date. Mail, email or fax this form to Pam Boatwright, 475 Water Street, Suite C103A, Portsmouth, VA 23704; Email pboatwright@elizabethriver.org, or Fax 757-397-8377.

Note: Our 142-page guide, *Wildlife Habitat Guide for Restoration and Landscaping in the Elizabeth River Watershed*, is a recommended resource. Also visit www.elizabethriver.org.

Guidelines for Upland Trees and Shrubs

1) **Criteria for site selection.** Before investing significantly in a site, screen the site to determine if it meets the following criteria, strongly recommended for ensuring planting success and required for investment of significant Elizabeth River Project resources. Check the criteria that apply to your site:

   ❑ **Favorable evaluation of the site by a consultant familiar with landscaping.** The Elizabeth River Project may offer this service free of charge, using volunteer or retainer consultants. Name and date of consultant visit: _____
   _____

   ❑ **Potential for meaningful habitat enhancement.** Proximity to the shore, size of planting area, potential for filtering runoff and connectivity to other habitat should be considered. Describe site: _____
   _____
   _____

❑ **Appropriate soil conditions.** Land along the Elizabeth River shoreline often has been created by filling prior wetlands with poor quality materials and debris, which can make both digging and plant survival challenging. Site histories also can include prior contamination which could be disturbed during planting. For these reasons, soil sampling is recommended: 1) Auger at selected spots to determine the quality of the topsoil and the presence of rocks/debris. 2) Test soil chemistry using kits purchased by Elizabeth River Project and consultant evaluate results. Determine if poor quality soil can be amended sufficiently to allow for successful planting. Interview the site owner to determine if there is likelihood for contamination from prior use. Avoid sites with suspected severe contamination. Testing method and dates and soil conditions found: _____

❑ **Accessible water supply and committed, accessible maintenance team.** Plant survival in a draught may depend on regular watering. Until established, most plantings will require some level of monitoring and maintenance. A site that is located a great distance from any assigned maintenance team may become neglected over time. Describe water access: _____

❑ **Acceptable displacement of existing habitat.** The site may already be vegetated with trees, vines and shrubs which, while perhaps not of top aesthetic value to humans, already provide food and shelter for songbirds and other wildlife along with high-value absorption of nutrients in runoff. Displacing this habitat with new plants may provide a step backwards in terms of habitat enhancement and pollution filtering on the Elizabeth River. If applicable, describe existing habitat and why your plans will present an improved habitat: _____

❑ **Existing invasive/aggressive species can be controlled.** Foreign species such as the common reed, *Phragmites*; English ivy, Japanese honeysuckle and privet can be so pervasive at a site that establishing native plants can be difficult, unless a sustained effort is made to remove the invasives. Describe any invasive species and any plan to control them: _____

❑ Recently, Bermuda grass has been encroaching on plantings installed nearby (especially for River Star Home plantings). The following preventative measures should be incorporated if Bermuda grass is present - plant in early spring or fall to reduce competition from the Bermuda (warm weather grass), remove (sod cut) the Bermuda, till the planting area, lay down newspaper and untreated burlap followed by 3-inch covering of pine straw mulch. Describe actions taken to keep Bermuda from taking over plantings: _____

❑ **Adequate distance from utilities**. Consult facility manager or site plan to determine the location of underground or above ground utilities; consult Miss Utility if there is likelihood for public utilities. Avoid planting tall growing trees under

power lines and follow guidance for utility easements. Call Miss Utility (dial 811) before planting. List potential utilities and efforts to identify them: _____

_____

❑ **Protection from industrial or other heavy activity**. Do not pick an area where facility activity, such as heavy equipment travel or storage, may impact the planting site. Describe any heavy activity or equipment operating in the vicinity

_____

_____

2) Criteria for plant selection and purchase. Having a professional design the planting will likely increase the success.

❑ **Plant appropriate species for the site conditions.** Refer to the Wildlife Habitat Guide or have a professional recommend which native plants are suitable for the area and conditions (see above). Is the site sunny, or partial sun or all shade? The plant selection should be based on lighting conditions. Other factors such as northern/ southern exposure, potential flooding or inundation, and possible salt spray if along a shore with boat wakes or fetch (enough space to build up waves). *Enclose design.*

❑ **Size the plants accordingly**. Consider quality and size of the plants in relation to site. Smaller plants survive better in poor conditions. Bigger is more impressive but more expensive and may be less likely to be mowed or trampled. *Enclose plant list and sizes.*

❑ **Plant a majority of native species for maximum habitat value and reduced need for fertilizers and watering.** Call the Elizabeth River Project for a list of native plant suppliers, refer to Elizabeth River Project's Wildlife Habitat Guide, or VA Native Plant Society's list of suppliers http://www.vnps.org/nurserylist.pdf.

3) Plan for the planting day! Just like most things, a wildlife habitat planting needs some planning to ensure success.

❑ **Obtain a permit, if needed.** Notify relevant City early of any plantings planned within 100 feet of any waterways. You may need a permit, especially, if the area is more than 2,500 square feet (land disturbance permit) or wetlands are involved. List permits obtained if applicable: _____

❑ **Provide site prep, soil amendments, and/or mulch as needed.** Depending on the design and site conditions, topsoil may need to be brought in or the soil aerated or tilled (see above). Many plantings will have a higher survival rate by applying mulch over the plants area or the plants themselves. Describe site prep plans:

_____

_____

_____

❑ **Plant in cool weather, if possible.** The ideal time to plant is in the fall in cool weather - October through December, but before the ground freezes. As an alternative, a planting in spring can be conducted between April through early June, but watering may be more important due to heat and drought in summer months. Planned planting period: _____

- ❑ **Decide if a contractor or volunteers will conduct the planting.** A contractor can be hired to install all or a portion of the plants. If employees are involved with the planting, it can generate "buy-in," which can lead to a stronger desire by employees to help maintain the planting. Some facilities hold a planting day event – employees bring their families, planting day t-shirt giveaways, and a picnic for hungry planters. Don't forget to provide water or drinks, snacks, rest room facilities, and a way to wash hands for volunteers.
- ❑ **Train any volunteers to be used for higher plant survival.** Make sure that the volunteers are trained on how to plant properly. Here's a link on how to plant a tree - http://www.treehelp.com/howto/howto-plant-a-tree.asp. Here's links for planting shrubs - http://www.diynetwork.com/diy/st_planting/article/0,,DIY_14364_2269663,00.htm and even a video http://video.about.com/landscaping/planting-shrubs.htm!
- ❑ **Don't forget tools!** Elizabeth River Project has many tools that can be borrowed for planting day, if needed. Usually a planting requires shovels, a rake, gloves, first aid kit, and a wheelbarrow or buckets.

4) **Maintenance and monitoring are critical for survival.** Designate a responsible party for upkeep and maintenance. Watering is key for long-term survival, especially in drought conditions. Set a goal for survivorship of plants: Strive for 75 percent (50 percent meets the River Star criteria). Before implementing a planting, we strongly recommend (require for ERP funding) a written maintenance plan addressing these concerns.

- ❑ **Plan to water new plants until they are established.** All plants need water the first day of planting, again within a week, at least weekly for the first season, and then again if there is a major drought within one year. How will you get water to the planting site the first day? Weekly? Could a water truck visit if there is a draught? If there is no potential to water appropriately, reconsider the planting. Describe watering plans: _____
  _____
- ❑ **Warranty the plants if possible.** Some contractors, nurseries or suppliers offer warranties for plants. What is the warranty supplied by your nursery? _____
  _____
- ❑ **Monitor site regularly.** Schedule regular visits to the planting area to monitor success. At least quarterly, survey and document survivorship and recommend any upkeep needs. Upkeep needs may include adding plants, weeding, mulching, watering etc. Who will do this? Provide name, phone, and email: _____
  _____
- ❑ **Consider these possible sources of help.** Sources of potential volunteers to help with maintenance include employees, VA Master Naturalists, city Clean Commissions, local sheriff's (inmate workforce), city juvenile volunteer advocates (court-appointed community service), local schools, Boy Scouts, Girl Scouts, Eagle Scouts, Military, and other River Stars (River Stars without habitat opportunities adopt other sites).

Guidelines for Tidal and Non-Tidal Wetlands

Generally, for wetland plantings, professional consultation is recommended. The Elizabeth River Project (399-7487) can provide a list of professional firms that may be able to help. In the meantime, here are some considerations to consider before deciding on a wetland restoration project.

1) **The ideal tidal wetland restoration site is directly adjacent to tidal water**, is already relatively low in elevation (to minimize the amount of excavation and grading), has tidal wetlands in the near vicinity, and is not an area planned for future development or use. Your city or county probably has a wetland representative who can visit your site to see if conditions are right for wetland enhancement.
2) **If conditions appear favorable, we generally recommend professional assistance** including an environmental consultant for proper design including plant lists, cost estimates and permitting, and use of a construction firm specializing in shorelines to excavate and plant the wetland.
3) **Two criteria for a successful wetland restoration** are daily tidal inundation (restoration elevations will need to fall between "Mean Low Water" and "Mean High Water") and protection from erosion. If you have to excavate a channel to bring the tide to your site, you will need to consider the amount of flow that is needed to ensure that the water can come in and get out. This may require help from an engineer or a hydrologist.
4) **Another consideration is the amount of excavation** that has to be completed to get the planting area between Mean Low Water and Mean High Water. Excessive excavation can make a site cost prohibitive, and disposing of the excavated material presents additional concerns.
5) **Other methods of restoring and/or enhancing wetlands:**
    - Remove invasive species where practical.
    - Remove debris that has floated or been dumped into the wetland area.
    - Protect the existing marsh with a low riprap or oyster shell sill.
    - Cease mowing or leave an un-mowed buffer between the upland and the wetland.
    - Enhance the area with additional plantings.
    - If you have a site that is technically feasible (has water, not too high in elevation), but there are future use concerns, consider modifying the use. For instance, if you need access to the water for a future use, do you really need a bulkhead along the entire shoreline, or would a pier suffice, thereby allowing wetland restoration along the remainder of the shoreline?