# **Activity Description Facility:** Site: Various Tulsa District Lakes Reservoir **Project Coordinator:** Activity: Everett Laney Use of Portable Water Pumps Site Manager: Lake Manager Address: Tulsa District Office 1645 S. 101<sup>st</sup> East Ave Tulsa, OK 74128 **Phone:** (918) 669-7411 **Project Description** i.e. Who; What; Where; When; How; Why Tulsa District personnel use portable water pumps for a wide variety of tasks. Pumps used are of a variety of sizes and may be project owned or rented. When large jobs such as stilling basin dewaters occur, pumps are frequently borrowed from other Project Offices. The potential exists to transport zebra mussels and golden algae in the pumps from infested water if the pumps are not properly drained when work is completed. The species listed in this HACCP Plan are of primary concern to the Tulsa District. For a detailed list of additional species, refer to your state's Aquatic Nuisance Species (ANS) Management Plan. Kansas: http://www.kdwp.state.ks.us/news/Fishing/Aquatic-Nuisance-Species/KS-Nuisance-Species-Plan Oklahoma: http://anstaskforce.gov/State%20Plans/OK/OKLAHOMA%20ANS%20PLAN%20JULY08.pdf Texas: Currently the Texas ANS Management Plan is under development http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd\_pl\_t3200\_1221\_draft.doc

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## HACCP Step 1 – Activity Description

# HACCP Step 2 – Identify Potential Hazards

(to be transferred to column 2 of HACCP Step 4 – Hazard Analysis Worksheet)

| Hazards: Species Which May Potentially Be Moved/Introduced |  |  |  |  |  |
|--|--|--|--|--|--|
| Vertebrates:   |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Invertebrates:   |  |  |  |  |  |
| Zebra mussels  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Plants:  |  |  |  |  |  |
| Algae (golden)   |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Biologics (e.g. disease, pathogen, parasite):        |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Others (e.g. construction materials, etc.):                |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

2

## HACCP Step 3 – Flow Diagram

## Flow Diagram Outlining Sequential Tasks to Complete Activity/Project Described in HACCP Step 1 – Activity Description (to be transferred to column 1 of the HACCP Step 4 – Hazard Analysis Worksheet)

| Task<br>1    | Transport pump to work site.                              |  |  |  |  |  |  |
|--------------|---|--|--|--|--|--|--|
|              |   |  |  |  |  |  |  |
| Task<br>2    | Pump water from whatever location the pump might be used. |  |  |  |  |  |  |
| $\downarrow$ |   |  |  |  |  |  |  |

| Tasl<br>3 | Remove the pump and return it to the Project Office. |
|-----------|--|
|           | $\downarrow$   |

|      | •   |  |  |  |  |  |  |  |
|------|---|--|--|--|--|--|--|--|
| Task |   |  |  |  |  |  |  |  |
| 4    | Store the pump for future use or return it to the rental store. |  |  |  |  |  |  |  |
|      |   |  |  |  |  |  |  |  |

3

| 1   | 2  | 3  | 2aru Anarysis works<br>4   | 5  | 6   |
|---|--|--|--|--|---|
| Tasks<br>(from HACCP<br>Step 3 - Flow<br>Diagram)     | Potential hazards<br>identified in<br>HACCP Step 2 | Are any potential<br>hazards<br>probable? (yes/no) | Justify evaluation<br>for column 3   | What control measures<br>can be applied to<br>prevent undesirable<br>results?  | Is this task a critical<br>control point?<br>(yes/no)   |
| Task 1  | Vertebrates  | No   |  |  | No  |
| Transport pump to<br>work site                        | <b>Invertebrates</b><br>Zebra mussels              | Yes  | Zebra mussel adults<br>and veligers could be<br>present in any water<br>remaining in the<br>pump from previous<br>usage. | Check the interior of the<br>pump to determine if it<br>was thoroughly drained<br>during the previous usage.<br>Remove any water in the<br>pump before leaving to go<br>to the job site. | Yes<br>If not all water was<br>removed from the<br>previous use and the<br>pump is to be used in<br>non-infested water. |
|   | <b>Plants</b><br>Algae (golden)                    | Yes  | Golden algae could<br>be present in any<br>water remaining in<br>the pump from a<br>previous usage.                      | Check the interior of the<br>pump to determine if it<br>was thoroughly drained<br>during the previous usage.<br>Remove any water in the<br>pump before leaving to go<br>to the job site. | Yes<br>If not all water was<br>removed from the<br>previous use and the<br>pump is to be used in<br>non-infested water. |
|   | Others   | No   |  |  | No  |
| Task 2  | Vertebrates  | No   |  |  | No  |
| Pump water from<br>whatever location<br>that the pump | <b>Invertebrates</b><br>Zebra mussels              | Yes  | Zebra mussel adults<br>and veligers could<br>get into the pump.  | None   | No  |
| might be used   | Plants<br>Algae (golden)                           | Yes  | Golden algae could get into the pump.  | None   | No  |
|   | Others   | No   |  |  | No  |

## HACCP Step 4 - Hazard Analysis Worksheet

| 1   | 2  | 3  | 4   | 5  | 6  |
|---|--|--|---|--|--|
| Tasks<br>(from HACCP<br>Step 3 - Flow<br>Diagram)                       | Potential hazards<br>identified in<br>HACCP Step 2 | Are any potential<br>hazards<br>probable? (yes/no) | Justify evaluation<br>for column 3  | What control measures<br>can be applied to<br>prevent undesirable<br>results?  | Is this task a critical<br>control point?<br>(yes/no)  |
| Task 3  | Vertebrates  | No   |   |  | No   |
| Remove the pump<br>and return it to the<br>Project Office               | <b>Invertebrates</b><br>Zebra mussels              | Yes  | Zebra mussel adults<br>and veligers could be<br>present in the water<br>inside the pump.      | Thoroughly drain the<br>pump and the intake and<br>outflow lines before<br>loading and leaving the job<br>site.                        | Yes<br>If the pump is to be<br>transported from<br>infested water to non-<br>infested water for use. |
|   | <b>Plants</b><br>Algae (golden)                    | Yes  | Golden algae is<br>present in some<br>waters within the<br>Tulsa District.                    | Thoroughly drain the<br>pump and the intake and<br>outflow lines before<br>loading and leaving the job<br>site.                        | Yes<br>If the pump is to be<br>transported from<br>infested water to non-<br>infested water for use. |
|   | Others   | No   |   |  | No   |
| Task 4  | Vertebrates  | No   |   |  | No   |
| Store the pump for<br>future use or<br>return it to the<br>rental store | <b>Invertebrates</b><br>Zebra mussels              | Yes  | Zebra mussel adults<br>and veligers could be<br>in any water that was<br>missed after Task 3. | Thoroughly drain the<br>pump and the intake and<br>outflow lines before<br>storing the pump or<br>returning it to the rental<br>store. | Yes<br>If the pump is to be<br>returned to a rental<br>store.  |
|   | <b>Plants</b><br>Algae (golden)                    | Yes  | Golden algae is<br>present in some<br>waters within the<br>Tulsa District.                    | Thoroughly drain the<br>pump and the intake and<br>outflow lines before<br>storing the pump or<br>returning to it rental store.        | Yes<br>If the pump is to be<br>returned to a rental<br>store.  |
|   | Other  | No   |   | <u> </u>   | No   |

# HACCP Step 4 - Hazard Analysis Worksheet (continued)

|   |                                 |   | HAC                      | 5 – HACCP P<br>CP Plan For | rm   |                                | <b>.</b> .   |   |
|---|---------------------------------|---|--------------------------|----------------------------|--|--------------------------------|--|---|
| (all CCP's or "yes's" from column 6 of HACCP Step 4 – Hazard Analysis Worksheet) Monitoring |                                 |   |                          |                            |  |                                |  |   |
| Critical<br>Control<br>Point<br>(CCP)   | Significant<br>Hazard(s)        | Limits for<br>each Control<br>Measure   | What                     | How                        | Frequency  | Who                            | Evaluation &<br>Corrective<br>Action(s)<br>(if needed) | Supporting<br>Documentation<br>(if any) |
| Task 1<br>Transport pump<br>to work site  | Zebra mussels<br>Algae (golden) | Zero tolerance<br>for water<br>remaining in<br>the pump and<br>lines prior to<br>use. | Interior of the<br>pump. | Visual<br>inspection.      | Before each use<br>if the pump has<br>been transported<br>from infested<br>water to non-<br>infested water for<br>use. | Employee<br>using the<br>pump. |  |   |

|   |                                 | IIACC   | •                                     |             | orm (continued)  |                                |  |   |
|---|---------------------------------|---|---------------------------------------|-------------|--|--------------------------------|--|---|
|   | (all CCP)                       | s or "ves's" from   |                                       | CP Plan For | <b>m</b><br>94 – Hazard Anal   | veie Work                      | (heat)   |   |
|   |                                 |   |                                       | 1           | toring   | <u>ysis work</u>               |  |   |
| Critical<br>Control<br>Point<br>(CCP)                               | Significant<br>Hazard(s)        | Limits for<br>each Control<br>Measure   | What                                  | How         | Frequency  | Who                            | Evaluation &<br>Corrective<br>Action(s)<br>(if needed) | Supporting<br>Documentation<br>(if any) |
| Task 3<br>Remove the pump<br>and return it to<br>the Project Office | Zebra mussels<br>Algae (golden) | Zero tolerance<br>for water<br>remaining in<br>the pump and<br>lines after to<br>use. | Interior of the<br>pump and<br>lines. |             | After each use<br>when the pump is<br>used in infested<br>water and is to be<br>transported to<br>non-infested<br>water for use. | Employee<br>using the<br>pump. |  |   |

### HACCP Step 5 – HACCP Plan Form (continued)

|   | HACCP Step 5 – HACCP Plan Form (continued)                                       |   |        |  |                   |     |              |                             |
|---|--|---|--------|--|-------------------|-----|--------------|-----------------------------|
|   | HACCP Plan Form  |   |        |  |                   |     |              |                             |
|   | (all CCP's or "yes's" from column 6 of HACCP Step 4 – Hazard Analysis Worksheet) |   |        |  |                   |     |              |                             |
| Critical  | Ciamifi agent  | I insite for  |        | 1  | toring            | Whe | Evaluation & | Currentin a                 |
| Critical<br>Control   | Significant<br>Hazard(s)   | Limits for<br>each Control  | What   | How  | Frequency         | Who |              | Supporting<br>Documentation |
| Point   | 11azai u(s)  | Measure   |        |  |                   |     | Action(s)    | (if any)                    |
| (CCP)   |  | Wiedsure  |        |  |                   |     | (if needed)  | (II ally)                   |
| Task 4<br>Store the pump<br>for future use or<br>return it to the<br>rental store | Zebra mussels<br>Algae (golden)  | Zero tolerance<br>for water<br>remaining in<br>the pump and<br>lines. | lines. | Double check<br>that the pump<br>and lines are<br>thoroughly<br>drained before<br>storing the<br>pump or<br>returning it to<br>the rental store. | the rental store. | · · |              |                             |

#### HACCP Step 5 – HACCP Plan Form (continued)

#### HACCP Plan has been discussed with all employees. It is the manager's responsibility to review plan with all new employees as required.

| Facility:  | Address: |
|------------|----------|
|            |          |
|            |          |
| Signature: | Date:    |
|            |          |
|            |          |