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Oiled Wildlife Response Program

A Guide to Preparing for and Managing a Recovery and Treatment Staging Area for Oiled Wildlife

Developed by

Lee Fox
Director
Pinellas Seabird Rehabilitation Center
840 3rd Avenue South
Tierra Verde, Florida 33715
(813) 867-0368

Prepared and Edited by

Heidi B. Lovett
Environmental Planner
Tampa Bay Regional Planning Council
9455 Koger Boulevard
St. Petersburg, Florida 33702
(813) 577-5151

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The Pinellas Seabird Rehabilitation Center (PSRC) is a non-profit organization dedicated to the rescue, rehabilitation, and release of injured native and migratory birds in the south Pinellas County/Tampa Bay region of Florida. PSRC also promotes research to better understand wildlife illnesses and improve treatment of injuries and educates the public about wildlife conservation. Beginning in 1991, PSRC designed an innovative Oiled Wildlife Preparedness Program at the request of the U.S. Coast Guard and state and regional agencies as part of the Tampa Bay Oil Spill Contingency Plan, which is the basis of this handbook.

The Tampa Bay Regional Planning Council (TBRPC), one of eleven regional planning councils operating in Florida, is an association of local governments, gubernatorial representatives, and ex-officio members. The Council brings governments together to coordinate planning for the community's future, with special focus on elderly and the environment, and provides an opportunity for sharing solutions among the 43 jurisdictions in the Tampa Bay region.

Funding for this project was provided by the ***Tampa Bay National Estuary Program***. Established in 1991, the Program is coordinating regional efforts to develop a comprehensive plan for bay restoration. It is a landmark partnership of the U.S. Environmental Protection Agency (EPA), the Florida Department of Environmental Protection, the Southwest Florida Water Management District, the bay's three surrounding counties and its three largest cities. The Program is part of a national network of estuary programs established under the Clean Water Act and Administered by the EPA.

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TABLE OF CONTENTS

INTRODUCTION

The purpose of the Pinellas Seabird Rehabilitation Center (PSRC) Oiled Wildlife Response Program is to have a pre-trained, organized force of volunteers, along with a core group of employees, ready and willing to respond and care for oiled wildlife in the event of a spill anywhere in the Tampa Bay area.

This handbook has been developed to assist our organization and yours to organize volunteers in an efficient manner and assemble all the necessary documentation, information and materials for a successful cleaning operation in one location.

Through pre-training and hands-on experience, PSRC has developed a volunteer network of 17 committees, each with very specific responsibilities. This organization effectively distributes the workload, simplifies the tasks that any one individual or committee is responsible for, and ensures that all bases are covered. It focuses on an overall smooth operation of the compound, thereby facilitating the rescue, cleaning, treatment and release of as many injured birds and other wildlife as possible.

This protocol and volunteer network was put to the test in August 1993, when a three-vessel collision spilled thousands of gallons of oil in Tampa Bay, injuring hundreds of seabirds. Of the 371 birds rescued and treated, 318 or 85 percent were released back to the wild. This was an unprecedented recovery rate, and our success was due in large part to this program, its preplanning efforts and its effective organization.

FOUR STAGES TO A SUCCESSFUL OILED WILDLIFE RESPONSE PROGRAM

FIRST STAGE - PREPARATION:

- Enlist volunteers for each of the 17 committees outlined in this handbook.
- Identify two chairman to be responsible for each committee. Identifying two chairman for each committee ensures that at least one will be available in an emergency. Begin implementation of the steps outlined in each committee section under "Responsibilities to prepare the committee."
- Prepare the volunteers by providing the necessary training. Booklets developed by PSRC can be revised for use in other regions following PSRC-approved training. Other materials also can be used to familiarize new volunteers with all aspects of the oiled wildlife program.
- Start accumulating equipment, supplies and other materials outlined throughout this handbook to be prepared when an emergency strikes.

SECOND STAGE - MOBILIZATION:

- Mobilize the trained core of volunteers immediately to be on site and prepared to start operations within 12 hours.

- Physically establish the operation (compound or facility) and be ready to start rescue and rehabilitation activities within one to two days:
    - Set up office trailer, supply tent, admitting and triage, critical care, holding, washing, drying, and outside pens in that order.
    - Prepare a shelter for personnel to rest, eat and conduct certain tasks; provide refrigerator/freezers; cage washing, drying, and newspaper storage areas; provide food preparation station for animals; and prepare the volunteer indoctrination area.
    - Establish satellite triage(s) as necessary.

THIRD STAGE - RESCUE & RELEASE:

- Rescue, give immediate care, medical exam, wash, rehabilitation and supportive care as long as necessary until release is possible.
- It is the responsibility of the state wildlife and/or environmental agency to determine whether the environment is clean enough to release rehabilitated animals back into the wild.

FOURTH STAGE - DEMOBILIZATION

- Demobilize, pack and store all remaining supplies and permanent equipment for future use.
- Prepare documentation of activities and submit rescue and rehabilitation data to appropriate agencies.

USING THIS HANDBOOK

Preparation is the key to any successful oiled wildlife program. This cannot be stressed enough. This handbook is designed to provide a step-by-step approach to organizing each of the 17 volunteer committees. Each committee section in Tab 1 lists the responsibilities or tasks that need to be completed to prepare the committee, as well as the tasks that each individual committee is responsible for during a spill event. Some of the tasks will be obvious, while others may be details (large and small) not previously considered. Supplemental information is provided in tables, diagrams and flow charts located within the committee section or in the resources section.

The handbook is designed in a binder format so that it is easy to include any additional information, particularly information pertinent to specific locales or wildlife (i.e., handling or medical protocols). Additional research to "fill in the blanks" in some sections may be necessary; therefore it is important to familiarize yourself with all the committees and aspects of an oiled wildlife program.

Consider this the starting point for your own program.

GETTING STARTED

It is important to mention at the start that there are multiple responsibilities involved in establishing an oiled wildlife response program. Besides providing important treatment for injured wildlife, the safety and health of volunteers is critical. The best way to ensure volunteers' safety and health is to make sure that everyone dealing directly with wildlife or oiled materials is properly trained.

There are no specific permits required to handle oiled wildlife other than the operating permits that wildlife rehabilitators must have from the U.S. Fish and Wildlife Service and the respective wildlife agency in each state. It is suggested that copies of appropriate permits be kept in Tab 3 of this handbook where they are easily available.

The U.S. Department of Labor's Occupational Safety & Health Administration (OSHA) requires that all workers who will be in contact with oil or other hazardous materials have a minimum amount of hazardous material training. Although OSHA does not cover volunteers. PSRC strictly conforms to its guidelines for both paid and non-paid workers. Some basic information about this training and several OSHA addresses are listed in Tab 2. *(See pages 2.1 and 2.7 for OSHA offices, pages 2.48 to 2.49 for an overview of hazardous materials.)*

Please be sure that all volunteers who will have such responsibilities have taken the OSHA training.

As with daily wildlife rehabilitation operations, there are specific reporting requirements that must be met for the U.S. Fish & Wildlife Service, as well as state agencies. Keeping accurate data is vital for assessing damages and for possible criminal prosecution. Report sheets, developed to help maintain accurate records, can be found throughout Tab 2.

RESPONSIBILITIES OF THE PROGRAM DIRECTOR

The Program Director, the person in charge of the oiled wildlife response program, is ultimately responsible for ensuring that the above-mentioned permits **and training requirements are met** by the organization and its staff and volunteers. This individual will also be the point contact person for federal and state agencies, as well as the spiller. The Program Director is also responsible for the first committee, Operations Control. The Incident Report or Oil Spill Alert Form *(see page 2.9)*, outlines the critical information needed to initiate an oiled wildlife spill response.

The most important responsibility of the Director is to fully "staff" each of the 17 committees outlined in this handbook and identify responsible individuals as committee co-chairs. The best time to organize and train thousands of well-intentioned people is before a spill occurs -- not afterward when mass confusion is typical. With key people trained to respond to specific aspects of the spill on each of these committees, the energy of helpful new volunteers can be effectively channelled.

Following are some ideas to reach out, enlist and organize volunteers. Volunteers are truly the backbone of a successful oiled wildlife response program!

ORGANIZING VOLUNTEERS

Start with your organization's key volunteers and identify those who are interested in initiating an oiled wildlife response program in your area. Enlist these key people to help you get the word out and build a volunteer base.

Choose a day, time and location to hold a program orientation. An ideal location may be a well-known civic or community center, library, Coast Guard station or hotel meeting room, if you do not have your own space. Set aside a minimum of four hours; you may need even more time depending on the turnout.

Develop a media release announcing your Oiled Wildlife Response Team and Preparedness Program. Distribute widely to your local media: television stations, cable, county/city access channels, radio and print media. Also develop a flyer to be posted on community bulletin boards and the Internet. Contact local conservation organizations to ensure that it is included in their newsletters.

Identify at least two contact people and list their names and phone numbers on the announcement to accept telephone calls from potential volunteers.

Send invitations to wildlife rehabilitators, environmental organizations, veterinarians and veternarian techicians within a two-hour driving distance, volunteer or environmental organizations and other people that may be interested. Large businesses or corporations often have service organizations and are a great source of volunteers.

Once you have publicized your event, be prepared to answer phone calls and respond to questions. Tell interested callers that the intent of the meetings is to be prepared if an oil spill should occur. Describe the various tasks and responsibilities involved in treating and rehabilitating oiled wildlife, giving examples of some of the different committees.

Encourage callers to attend the meeting and document names, addresses and phone numbers. If the event was publicized well in advance, you may want to send out a reminder postcard to people who responded early. This will underscore the importance of each individual's participation.

Use this handbook as the guide for these initial orientation meetings. You will need to describe each committee to recruit volunteers for them. Remember, no task or committee is more important than another -- each one has responsibilities which must be covered and each committee must work well for the overall operation to be successful.

OILED WILDLIFE VOLUNTEER COMMITTEES & MAJOR RESPONSIBILITIES

The following 17 volunteer committees have been established by the Pinellas Seabird Rehabilitation Center (PSRC) with very specific duties and responsibilities so that the workload is shared, and no one person or committee is overburdened. Each committee and its responsibilities are detailed in the sections that follow. Relevant tables, reporting sheets and other pertinent information also are provided within appropriate sections.

1. Operations Control

a. Coordinate entire operation.
b. Approve supply orders and communications installations.
c. Coordinate with spiller via contract.
d. Coordinate with state and federal agencies.
e. Keep accurate records.

2. Volunteer Coordination

a. Develop an efficient volunteer telephone network.
b. Follow the phone interview flow chart to evaluate volunteers' skills and experience, and to schedule orientations.
c. Schedule volunteers into appropriate positions: office/reception, medical/rehabilitation, general duties.
d. Ensure volunteer release paper work signed.

3. Medical

a. Prior to spill, identify local avian specialists who will volunteer in an emergency.
b. Have remote triage teams and supplies ready and available, separate from main staging equipment.
c. Examine incoming birds and other wildlife; conduct initial cleansing (eyes, nares, mouth) and health assessment (stabilize and determine treatment necessary).
d. Dispose of bio-hazardous waste (medical waste) properly.
e. Dispose of oiled waste (considered toxic) properly.
g. Preserve dead animals for U.S. Fish & Wildlife Service damage assessment.

4. Bird Washing

a. Develop wash teams and divide responsibilities based on experience.
b. Clean bird of all oil to begin process of restoring bird's natural waterproofing (bird-handling experience necessary).
c. Maintain water at proper temperature (104°F) for washing and dispose of used water appropriately.
d. Keep accurate records (water temperature, concentration of Dawn liquid detergent, rinse information).

5. **Media**
   a. Designate primary and secondary media contacts; ensure that one contact person is on site as often as possible.
   b. Identify volunteers to escort media through the compound at given times (identify more than one person).
   c. Schedule press visits during specific times for photo opportunities.
   d. Allow no unauthorized interviews.
   e. Coordinate with Operations Control and Medical Committees before making any public statements.
   f. Allow only designated individuals to make official comments on behalf of your organization.

6. **Communications**
   a. Secure beepers, regular phones, mobile/cellular phones, and faxes.
   b. Establish contact with ham radio operators. They are a potential source of information\communications assistance.
   c. Develop and maintain a list of important phone numbers.
   d. Develop strategy for establishing necessary number of lines at a spill site.

7. **Cleaning**
   a. Keep cages, compound and volunteer common areas clean (ensures less confusing work atmosphere, as well as maintains sanitary conditions).
   b. Responsible for separating recyclable materials.
   c. Responsible for handling laundry.

8. **Food Sources**
   a. Identify possible suppliers for bird food prior to spill (check with Rehabilitation Committee for special requirements).
   b. Identify possible donors for volunteer and staff food prior to spill. Have varied types of food and drink, including water, available.

9. **Construction**
   a. Handle all carpentry needs: build tables, cages and pools.
   b. Work with other committees to determine size/dimension requirements for local species prior to spill.

10. **Plumbing**
   a. Ensure that water requirements for washing area (hot/cold water; softened water) are met.
   b. Provide water for rehab pens/pools, and human/animal consumption.

11. **Electrical**
   a. Work with Plumbing and Carpentry Committees to determine and handle all electrical needs (medical, office, triage, etc.).

12. Rescue (Land & Sea)

a. Experience in *rescuing* birds a must (injuries to both birds and volunteers can be caused by inappropriate techniques).
b. Prepare rescue kits for rescue teams.
c. Coordinate and manage all land and sea rescues.

13. Inventory Control/Informational Signs

a. Make signs (directional, site location, etc.) prior to spill.
b. During spill, assist Supply Requisitioning committee.
c. Coordinate current inventories with Supply Requisitioning.
d. Routinely check with other committees for supply needs.
e. Maintain inventory sign-out sheet(s); all supplies must be signed for.
f. Maintain records of donations for thank you letters.

14. Supply Requisitioning

a. Generate list of contacts/vendors/donors to meet all supply needs.
b. Secure all equipment for Medical, Washing, Construction and Cleaning (general cleaning supplies) committees and maintain necessary office supplies.
c. Keep inventory count and report to Inventory Control.
d. Have all purchases approved by Operations Control.

15. Rehabilitation

a. Maintain birds as per instructions from Medical Committee, including critical care (caged birds), feeding, and cleaning pens/pools.
b. Keep accurate medical records, including fluid therapy (oral and IV), medications and feeding.
c. Mist birds in pens to promote preening for waterproofing restoration.

16. Environmental & Hazmat Volunteer Training

a. Develop and provide environmental training relative to local environmental habitats/conditions.
b. Complete and provide full (40 hours) and short-course OSHA hazmat training for appropriate individuals.
c. Develop and provide training for bird handlers.
d. Develop volunteer orientation and conduct training programs as needed during spill response efforts.

17. Predator/Security Patrol

a. Protect birds. If pens are outside, area must be predator proof -- with special attention to raccoons, rats, snakes and dogs.
b. Have sufficient volunteers available to patrol from dusk to dawn.
c. Protect people. This includes security for parking and getting people into facility/compound.

OPERATIONS CONTROL
Committee #1

Purpose: To activate the Oiled Wildlife Response Program, once a call is received about a spill; to oversee all oiled wildlife response operations and ensure that all committees are fully operational; and to coordinate activities with the spiller, U.S. Coast Guard (Area Spill Response Coordinator) and other federal and state agencies. The Program Director heads this core committee.

Responsibilities to prepare the committee:

1. Establish a core group of volunteers/employees.

2. Establish all committees and identify co-chairs for each.

3. Organize a phone tree to call core volunteers and committee chairs during an emergency.

4. Meet with the co-chairs of all committees every three months for preparedness. Work with each committee to make sure they understand their responsibilities and are able to fulfill each preparatory step as outlined in each committee section of this workbook.

5. Plan recruitment, orientations, and conduct training workshops (hazmat, rescue techniques, environmental, etc.) throughout the year, working with the chairs of the Training Committee.

6. Order and store supplies and equipment necessary for compound and satellite triage sites so they are available in the event of a sudden emergency.

7. Maintain and update lists of birds and wildlife which are endangered or listed as species of special concern.

8. Maintain and update lists of local governmental agencies and environmental organizations which may be involved in spill response efforts. *(See 1996 contacts on pages 2.1 to 8.)*

Responsibilities during a spill include:

1. Designate the location for the staging area.

2. Immediately order communications equipment such as telephone lines and phones.

3. Activate phone tree to notify core volunteers and committee chairs.

4. Establish staging area: ensure that all necessary equipment and materials are on site. *(See sample staging plan and construction schematics on pages 2.31 to 2.40)*

5. Coordinate communication with government officials.

6. Maintain records of all incoming live and deceased oiled birds. *(See Daily Report Form on page 2.9.)*

7. Handle all chain of custody documentation and evidence for U.S. Fish & Wildlife Service and state agencies.

8. Get rescue teams in the field with rescue kits, working with Inventory Control to ensure that all kits are signed out and in.

9. Establish satellite triage sites, as necessary.

10. Provide information to Media Committee to that ensure accurate and precise information is disseminated regarding volunteer needs, numbers and types of injured animals, donated supplies, etc.

11. Conduct daily meetings among key people and the chairs of critical committees such as Washing, Rehab, Media, Volunteer Coordination, etc. to make sure all operations are running smoothly.

12. Coordinate with all other committees routinely to prevent major problems from arising.

13. Ensure proper disposal of oiled water, oiled medical supplies and sharps.

    Note: Only 30 pounds of medical waste is legally allowed to be transported to a disposal site, such as a volunteering veterinarian's office, without requiring a licensed waste hauler. All oiled waste materials must be handled by a licensed handler.

14. Create organization chart of key personnel. Update each shift to indicate who is in charge and other personnel who are on duty. Keep chart displayed in open view for all staff and volunteers.

VOLUNTEER COORDINATION COMMITTEE
Committee #2

Purpose: To ensure that volunteer needs of each committee are met, that all volunteers are trained, and that an efficient method is established to call volunteers into action when needed.

Responsibilities to prepare the committee:

1. Develop a release form for volunteers which restricts your organization's liability in case of accident or injury. **This should be develop with the assistance of a local attorney; standard forms are not practical in all specific locations.**

2. With assistance from Program Director, develop indoctrination pamphlet for new volunteers.

3. Develop orientation program for volunteers, to be conducted annually to keep all volunteers prepared, and to be conducted regularly for new volunteers during a spill to ensure a smoothly run operation.

4. Develop an efficient telephone network for contacting volunteers in the event of an oil spill.

5. Obtain vital volunteer information: address, work and home phone numbers, skills, etc. for volunteer database. Keep database updated.

6. Write and distribute "Letter to Employers" for potential volunteers. *(See sample letter on page 2.13.)*

7. Determine which volunteers have requested and secured time off from employers during daytime hours in the event of an emergency. Be able to retrieve these names from database.

8. Add new volunteers to the database and assign to committees. Review and update database routinely.

9. Notify volunteers of regularly scheduled meetings.

10. Meet with individual committees and with all committees as a group two or three times a year, as instructed by director, to establish and update volunteer needs of each committee.

11. Ensure that job descriptions are complete and understood for all committees, and that they are on file.

12. Use a color-coded name tag system for each operation area and have tags ready.

13. Work with Director to develop necessary forms and a filing system.

Responsibilities during a spill include:

1. Set up a minimum of four phone lines, three listed and one unlisted.

2. Implement telephone network to notify all volunteers of spill; volunteers will be needed 24 hours a day.

3. Provide information to Media Committee to allow announcement of the listed numbers only. *(See sample public service announcement on page 2.13.)*

4. Schedule shifts during a spill in increments of at least five hours, with a 30-minute overlap between shift changes. Crews after 10 p.m. will be small but are still necessary.

5. ***First day:*** Answer the three listed phones and fill out a volunteer application card for each applicant. Near the end of the day (or throughout if possible), enter each application card into computer and call to schedule volunteers to fill vacancies in the next day's schedule.

   Use the Bird Sighting Report Forms *(see page 2.43)* to record details about any reports phoned in. Send reports to coordinator of the Rescue Committee.

   Second day: Assign three volunteers to answer phones. Have a fourth volunteer greet new volunteers reporting for duty, issuing release forms and I.D. badges, and then directing them to the Indoctrination Area. Indoctrination (including hazmat and environmental training) should start as early as possible (by 8:30 a.m.), and be repeated throughout the day as frequently as necessary (see Volunteer Training Committee). Volunteer or Training Committee coordinators should conduct first indoctrination while teaching other volunteers to conduct subsequent indoctrinations. Hazmat training must be taught by a qualified instructor.

6. ***During the balance of mobilization:*** Volunteer coordinator is responsible for ensuring volunteers are qualified for the tasks they are given, or moved to more suitable jobs. Work closely with Director, Operating Committee and other co-chairs to ensure all committees are fully "staffed," i.e., that all volunteer needs are met.

7. Work with Director to ensure all necessary forms are available at the site and a filing system is in place.

8. Responsible for collecting completed release and volunteer registration, and collecting time sheets from staff and volunteers.

Outline for local orientation meetings prior to a spill:

1. Organize key volunteers to organize other volunteers in their area for first orientation.

2. Decide on a day, time and location. Potential locations include civic centers, libraries, Coast Guard stations, community associations, etc.

4. Ask media, including radio, television and newspapers, to use a PSA announcing your Oiled Wildlife Response Team Preparedness Program to involve other volunteers.

5. Have names and telephone numbers for two contacts included in the PSA. They will respond to telephone calls.

6. Send invitations to wildlife rehabilitators, environmental organizations and veterinarians and veterinary technicians within a two-hour driving distance.

7. Also invite representatives of other environmental organizations and large corporations. They are a great source of people who are very willing to help.

Responding to phone calls prior to the orientation:

1. Tell interested caller you would like to be ready if a spill should happen in their area.

2. As important as it is to know how to wash an oiled bird, there is more to responding to a spill than just washing. You need everything from veterinarians to cage and pool cleaners. All 17 committees and their very specific responsibilities are absolutely necessary to the success of the overall effort.

3. The bird-washing support system, from "volunteer coordinator" to "rat patrol," has been proven to work.

5. Now is the time to organize thousands of well-intentioned people, not after a spill. With key people already trained and prepared, you will be able to help channel the energy of the helpful new volunteers.

6. You need not have to want to hold or handle the animals, there are many other jobs to be done, and volunteers can choose any committee they feel they can do the best job.

7. The workshop will last for four to five hours depending on the turn out. We will provide refreshments.

Committee Job Definition & Duties:

Phone Personnel (minimum three per shift):
Develop a script for these volunteers to use (see sample flow chart p 2.14).

- Always be courteous to callers.
- Obtain name, work and home phone numbers and address.
- Explain volunteer needs and committee responsibilities and ask about their skills and preferred job assignment.
- Find out if they are able to provide housing for out-of-town volunteers and professional staff or arrange for rooms at local motels.

Host/Hostess (minimum two per shift):

- Conduct volunteer check-in: have volunteers review information on their application card for accuracy and sign release forms; issue I.D. badges; and direct new volunteers to Indoctrination Area.
- Complete volunteer applications for "walk-ins."
- Sign in trained volunteers and staff; hand out I.D. badges; stress importance of all volunteers signing out to ensure replacements are in place.
- Have volunteers who are signing out review the schedules for the next few days to see when they are scheduled or if they are available to fill vacancies.
- Update organization chart with "on-duty" personnel.
- Keep volunteer rest area stocked with food and/or supplies.
- When a member of the media or a special visitor arrives, direct a runner to inform key personnel (Director, lead media contact).

NO ONE IS ALLOWED PAST CHECK-IN POINT WITHOUT AN ESCORT

Runner (one per shift to work closely with Host/Hostess):

- Check with each committee to ensure proper staffing. Report to Host/Hostess so adjustments on assignments can be made.
- Escort volunteers from rest area to new assignments.
- Locate and advise key personnel of waiting media or visitors.
- Escort visitors bringing donated supplies to supply tent.
- Notify Medical Committee of any injured bird brought to front desk.
- Roam compound running messages, watching for volunteers, etc.

Data Entry/Filing (one each for afternoon and evening shifts):

- Enter information from volunteer application forms into database.
- File forms (releases, volunteer applications, time sheets, etc.)
- Enter information on incoming birds for the day from Daily Tally Sheet.

Phone workers to schedule volunteers (afternoon and evening shifts, as needed):

- Responsible for phoning and scheduling volunteers to fill vacancies on the next day's schedule.

MEDICAL COMMITTEE
Committee #3

Purpose: To prepare local avian specialists and veterinarians with the information necessary to properly provide for all the medical needs of an oiled bird or animal, and to provide that care professionally and efficiently in the event of an oil spill emergency.

PSRC OILED WILDLIFE RESPONSE MEDICAL PROTOCOL

Introduction

The medical protocols described in this section are based in large part on those developed by Tri-State Bird Rescue of Delaware, with modifications and additions incorporated to address the special needs of birds in Florida. The relatively constant warm temperatures in Florida differentiate it from northern states, and can create unique problems during the care and treatment of injured wildlife. For example, one of the most critical concerns is dehydration. Unaddressed, dehydration can cause extreme debilitation for an oiled or injured animal, and may lead to death.

The general guidelines provided in this section are followed by descriptions of the effects of oil on wildlife and detailed medical protocols. *(Examples of various report sheets and one-sheet reference materials which can be posted in medical areas and satellite triage are included on pages 2.19 to 2.27.)*

General Guidelines for Medical Care

1. PROTECTIVE CLOTHING MUST BE WORN BY OILED WILDLIFE HANDLERS! Wear protective gloves, gowns and masks when handling oiled birds. Understand the physical dangers associated with the handling of each species. Set an impeccable example for your workers, and make sure that they are adequately protected at all times.

2. MINIMIZE STRESS by handling the birds as little as possible. Prepare treatments ahead of time. Keep noise to a minimum, and provide visual barriers or "hides" so that they are not constantly exposed to humans or other birds which may cause unnecessary stress.

3. PROVIDE APPROPRIATE TEMPERATURE CONTROL AND VENTILATION. This is especially important for oiled birds, which typically have difficulty regulating their body temperatures and are susceptible to secondary disease problems that can be caused by poor ventilation.

4. BIRDS SHOULD BE STABILIZED AND WASHED WITHIN 8 TO 24 HOURS. Birds that cannot be washed within that time should be re-evaluated.

5. EVALUATE ALL CASES AND CONSIDER HUMANE DESTRUCTION OF HIGH-RISK BIRDS. Unnecessary suffering can be alleviated and limited resources dedicated to those birds which have a better chance of survival.

6. PREVENT HEALTH RISKS TO HUMANS AND TO OTHER BIRDS. Isolate birds with signs of infectious disease (described in section on euthanasia). Secure treatment for injured humans: clean all cuts thoroughly with an antiseptic and request medical attention for major wounds.

7. KEEP COMPLETE AND ACCURATE RECORDS to insure that each bird receives appropriate medical care.

8. PROPERLY DISPOSE OF ALL BIO-HAZARDOUS WASTE (usually a red bag is provided by the disposal company).

Veterinary Aspect of Oil Spills

Crude oils vary in physical characteristics such as color, viscosity, specific gravity, and composition, especially in the elements and compounds (such as oxygen, nitrogen, sulfur, and metals) that are attached as side chains to the hydrocarbon. Each of these characteristics plays a role in the fate of spilled oil -- whether it will disperse, how it disperses (i.e., evaporates, sinks or mixes with water), and how it affects animals. If the spiller has been identified, a material safety data sheet (MSDS) will be available from the manufacturer detailing specific characteristics, including additives, of the oil spilled. This section briefly outlines the effects of oil on animals, with particular focus on seabirds.

Oil affects birds and mammals externally and internally. Externally, it irritates eyes, disrupts feather structure and causes matting. As a result, the feathers' insulative properties are reduced, which can lead to either hypothermia or the hyperthermia found during the 1993 Tampa Bay oil spill.

Internal problems result from the ingestion of oil through preening, drinking of oiled water, and inhalation of fumes. These seldom cause mortality directly, however they do have several debilitating effects that promote mortality from other causes. These effects include inflammation and hemorrhaging of the digestive tract; organ damage, which will be discussed in more detail later; red blood cell damage; hormonal imbalance; pneumonia; intoxication; inhibited reproduction; retarded growth in young birds; and abnormal parenting behaviors.

Bird embryos are very sensitive to petroleum. Contaminated nest material and oiled plumage on parents may transfer oil to shell surfaces, which can cause early embryonic death.

Marine mammals, such as sea otters, polar bears and fur seals, that rely heavily on fur for insulation are the most likely to suffer insulative problems in an oil spill. The disruption to their fur can also cause swimming difficulties and drowning, as well as the other problems detailed previously. Seals and cetaceans may be affected to a lesser degree than birds due to their reliance on blubber for insulation. However, they can still contract inhalation pneumonia and eye irritations.

MEDICAL PROTOCOLS

Rationale For Protocols

These treatment protocols, developed by Tri-State Bird Rescue, are based on more than 15 years of research and field experience in oiled bird rehabilitation. They are designed to stabilize birds prior to washing, to treat any existing or acquired health problems, and to minimize the stress involved in their handling and care. Stress has been well documented as a mortality factor in captive wildlife; this is particularly true when animals are already compromised by oil exposure. Tri-State's medical procedures alleviate the physical effects of oil contamination while providing fluids for rehydration and reducing the on-going absorption of toxic substances across epithelial surfaces.

While protocols are similar for all birds, specific handling techniques and the extent and duration of treatment often varies according to the species and types of oil involved, as well as the presence or absence of complicating factors. Hardy species such as Canada geese and dabbling ducks can usually be cleaned, treated and released within three to four days, with a success rate that may exceed 90%. Diving ducks, cormorants, loons and grebes are more difficult to treat; complications such as plumage damage and secondary infections are not uncommon. Pelagic (ocean-going) birds should be released as soon as possible after waterproofing is restored; prophylactic use of antifungal medication should be considered for these birds if extended rehabilitation or antibiotic therapy is necessary.

Intensive fluid therapy is essential when kidney damage is present. Intravenous or intraosseous catheters can be used to avoid repeated venipuncture and handling stress to the bird. Placement of catheters requires medical training and the use of sterile techniques.

Winter spills present additional problems due to cold temperatures and more limited food availability when birds are released. Birds must be acclimated to the weather and in excellent nutritional balance and feather condition before release, so extended supportive care may be indicated.

Accurate and thorough records are necessary to insure that each bird receives proper treatment. Records also generate data which can be used to improve the medical and cleaning techniques used in the treatment of oil-contaminated animals in the future. *(See recommended forms on pages 2.25 to 2.27.)*

Overview of Protocols

Medical personnel work with the Operations Control Committee to admit arriving birds and record relevant information provided by officials from the U.S. Fish and Wildlife Service or members of the rescue teams. This information is transferred to sequentially numbered, individual permanent records. Corresponding numbered plastic bands are then placed on the left leg of each bird.

A two-part medical protocol has been developed to facilitate the prompt evaluation and stabilization of all birds. Initial treatment (Medical I) should occur within two hours of capture and can be performed in the field if trained personnel are available. More extensive treatment techniques for critically injured birds which are suffering from seizures, debilitated or extremely depressed are presented in the section labeled "Medical II."

It may be important to establish a **Satellite Triage** (ST) if the distance between oiled birds and the main Triage/staging area is large. Initial medical evaluation and treatment can be conducted at the ST. A special ST data form *(see page 2.24)* records the most pertinent medical information and must accompany every bird brought to Triage. It is one-half sheet in size, and should be reproduced on colored paper so that it is easily recognizable.

MEDICAL I: Initial evaluation and treatment

A 13-step checklist has been developed from the following treatment protocol and is included on page 2.19. It should be enlarged, reproduced and laminated for display at Triage sites. A slightly altered version, specific to the Satellite Triage, is also provided on page 2.20.

1. A quick but thorough physical examination, including weight and cloacal temperature, is performed (normal values are between 102° and 106° F). General body condition, extent and distribution of oiling, and signs of oil toxicosis are noted. Birds with traumatic injuries and/or signs of disease should be evaluated individually. Blood samples for additional studies can be taken at this time.

2. Warmed physiologic saline (0.9%) or other sterile fluid (Murine®, Visine®, etc.) should be used under light pressure to flush oil from the eyes. The mouth and nares (nostrils) are gently cleaned to remove oil. The vent area is examined and droppings or foreign materials removed. Excess oil is removed by wiping around the head with a cotton ball and on the body with an absorbent cloth. Feathers should be wiped in the direction of their growth.

3. It is undesirable to allow a bird to ingest oil by preening; however there are almost no acceptable ways to prevent it. The mouth should never be taped shut; this interferes with cooling mechanisms, obstructs regurgitation, and can actually suffocate species which do not have external nares. Wrapping the bird in sheeting or pillowcases can be recommended only if: (1) care is taken to provide holes for the legs and cloaca; (2) temperatures are cool enough so that the bird will not get overheated; (3) such "wrapping" is not too stressful for the bird. **(This technique is rarely feasible in Florida).**

4. IF THE BIRD IS ALERT AND RESPONSIVE, flush the gastrointestinal tract by stomach tubing clear fluids (Normosol®, lactated Ringer's solution, 2.5% dextrose in lactated Ringer's solution, Pedialyte®). *Consult pages 1.16 through 1.20 for techniques and volumes.* Pepto-Bismol® (approximately two to six cc) can then be administered as a protective lining for the GI tract. Place the bird in a quiet, warm area to await further treatment or cleaning. To prevent regurgitation, do not handle for a minimum of 30 minutes.

5. IF THE BIRD IS SEIZURING, EXTREMELY WEAK OR DEPRESSED AND CANNOT MAINTAIN PROPER HEAD CARRIAGE, do not administer anything by feeding tube. Instead, place the bird in a quiet, warm area. This bird will need special care as soon as possible (see Medical II for treatment of critical animals).

6. Every effort should be made to clean stabilized birds within eight to 12 hours of admission.

MEDICAL II: Treatment of Critical Animals

1. Extensive parenteral fluid therapy (subcutaneous, intravenous or intraosseous) is necessary for the treatment of critically affected birds:

   a. Seizuring birds
   b. Birds which cannot maintain head carriage
   c. Extremely depressed and debilitated animals
   d. Birds with clinical signs of kidney failure
   e. Hypothermic and hyperthermic animals
   f. Birds with toxic exposures

2. Intravenous fluids are indicated for birds with signs of shock. These animals should also receive single injections of dexamethasone and sodium bicarbonate *(see page 1.20)*. Subcutaneous fluids may be substituted in cases where intravenous or intraosseous fluids cannot be given. Adjunct oral fluids can be given if the bird is maintaining erect head carriage.

3. Sterile, balanced electrolyte solutions such as lactated Ringer's solution with 2.5% dextrose or Normosal R® can be used. Fluids are generally warmed to body temperature (101° to 102° F) prior to administration. Room temperature fluids should be used if the bird has been seizuring and/or is hyperthermic.

4. Intravenous fluids can be administered in the medial metatarsal (leg) vein or the brachial (wing) vein. Intraosseous fluids are administered via a catheter placed in the distal ulna. Subcutaneous fluids can be delivered by injection just under the tissue-thin skin located in the inguinal area or on the back where the neck joins the shoulders. Care must be taken to avoid puncturing the cervical air sacs.

5. Each bird should be placed in a covered box in a warm area (between 80 and 85° F for birds from temperate climates). If the building is not sufficiently heated, heating pads or large plastic bottles filled with hot water (105° to 115° F) can be placed under the wings next to the body. If the bird has been seizuring and/or is hyperthermic, do not use hot water bottles. Place the animal in a well-ventilated, comfortable area.

6. Re-evaluate these birds hourly. Isolate any bird with signs of infectious disease. Consider euthanasia for any animals which show no improvement in 12 to 24 hours, present a potential health risk to other birds, or have conditions that may require extended treatment *(consult euthanasia guidelines on page 1.21)*. If improvement is seen, with attitude and activity returning to normal, prepare the bird for washing as described in Medical I.

For birds that received the initial evaluation and treatment (Medical I) at triage, follow these guidelines developed by PSRC:

Entry exam and treatment for birds received from Satellite Triage (S.T.).

- Record band number, making sure it matches the S.T. Data Form.
- Record weight.
- Repeat cloacal temperature if indicated.
- Complete physical exam, noting comments from S.T. Data Form. Provide necessary treatments. Identify birds that need additional treatment.
- Check legs, mouth, nares and eyes for re-oiling during transport.
- Record all data on Master Data Form.
- Place in appropriate housing to await further treatment or evaluation.

PRINCIPLES OF FLUID THERAPY

Introduction

Fluids play a vital role in the health and survival of all living creatures, and are an important constituent of all cells. Fluid and cellular components in the circulatory system transport nutrients and oxygen to, and remove waste materials and carbon dioxide from, organ systems throughout the body. Adequate circulatory pressure must be maintained so that each tissue receives the perfusion that it needs to maintain normal function. When fluid imbalances occur due to starvation, disease or injury, life-threatening dehydration and shock may result.

Normal fluid loss through respiration, evaporation and elimination occurs at the daily rate of 50 ml per kilogram of body weight, or approximately 5% of the animal's weight each day. Animals with decreased intake (due to injury or starvation) or increased loss (resulting from bleeding, vomiting, diarrhea, polyuria or infection) will experience some degree of dehydration. Additionally, oil-contaminated birds may lose the ability to absorb fluids from their gastrointestinal tract because of petroleum-induced enteritis. Oiled animals often experience increased fluid loss because of toxic injury to their kidneys. It is safe to assume that all oiled birds need some degree of fluid support, and many will require intensive fluid therapy.

An estimation of the amount of dehydration can be made based on the physical characteristics described below. Dehydration of less than 4 or 5% percent is usually not detectable while dehydration greater than 12 to 15% can be fatal. Birds showing depression, weakness, skin tenting, and loss of roundness to the eye generally have fluid deficits between 5 and 12%. Replacement fluids are calculated on an assumed 10% deficit.

Fluid therapy is used to correct existing deficits (replacement fluids), to provide for daily needs (maintenance fluids), and to provide for ongoing losses from bleeding, loss of kidney function, diarrhea, etc. Fluids may be administered orally (per os) or by injection (subcutaneous, intravenous or intraosseous injection). The route of administration is determined by the bird's condition, the volume of fluids to be given, and the professional expertise of the veterinarian. Multiple routes of administration can be used at one time.

Special considerations for Florida and other warm, tropical/sub-tropical climates:

Hot weather throughout most of the year in Florida exacerbates the problem of dehydration, posing even greater risk to some species. Oiled pouches or gular sacs contribute to a bird's inability to thermoregulate. Fluid imbalances caused by elevated body temperatures and/or GI and kidney damage are aggravated by outdoor temperatures of 90 to 100° F. Pelicans and cormorants have proven to be especially susceptible to this combination of factors.

Repeated boluses of intravenous fluids, once or twice daily for one to three days, are required by many of these birds. To minimize venipuncture and handling stress, indwelling IV catheters should be placed in all severely dehydrated pelicans (i.e., those likely to need additional IV therapy). The medial metatarsal vein is preferred to the brachial or jugular veins *(see catheter placement chart, page 2.21)*. Subcutaneous (SQ) fluids can be administered to cormorants in place of IV therapy if the bird has adequate peripheral circulation. ***Do not give SQ fluids to pelicans.***

Guidelines for Fluid Administration

1. Routes of Administration

ORAL FLUIDS - "If the gut works, use it." Birds which are responsive, maintain their head carriage, have functional GI tracts, and are not in seizure or shock, are good candidates for oral fluids. Oral fluids can be used in conjunction with injectable (parenteral) fluids if the above criteria are met. *Guidelines for oral volumes are listed for several common species on page 1.19.*

PARENTERAL (INJECTABLE) FLUIDS - Parenteral fluids are listed in birds which are seriously ill, very depressed or in shock, or which require very large volumes that cannot be given orally. Administrators should be trained in sterile protocols and medical techniques. Consult section 4 entitled "Calculating Fluid Needs" to determine volumes required; sites for administration are described below.

a. Subcutaneous fluids - Of all parenteral routes, subcutaneous fluids are the most easily administered. This route of administration is recommended for birds which cannot receive oral fluids but which have adequate peripheral circulation and are not in shock. Subcutaneous fluids may be used alone or in conjunction with oral or intravenous fluid support. ***Subcutaneous fluids must not be given to pelicans.***

b. Intravenous fluids are recommended for birds which have poor peripheral circulation or which are in imminent danger of shock. This method is useful when large volumes of fluids must be given, and can be used in conjunction with subcutaneous fluid support. A bolus of up to 3% of the bird's body weight can be given if respiratory disease is not present and if kidney function is adequate. Care must be taken to avoid hematoma formation when administering intravenous preparations.

c. Intraosseous fluids can be considered for birds (such as those suffering from kidney failure) which require long-term fluid support. Repeated administration of large boluses is possible through a catheter placed in the distal ulna. Sterile techniques must be maintained throughout this procedure.

2. Fluid Selection

A balanced electrolyte solution such as lactated Ringer's solution (LRS) can be used for all routes of administration. The addition of 2.5% dextrose to oral and subcutaneous fluids and 5% dextrose to intravenous and intraosseous fluids provides a much-needed energy source. If LRS is not available, Normosol R®, 0.9% saline or D5W can be used for short periods of time. Once fluids are opened, they should be used within 24 hours for intravenous or intraosseous injections, and within five days for subcutaneous injections. Oral use may be continued until the solutions become cloudy in appearance.

3. Sites for Injection

a. Subcutaneous fluids are given in the loose skin where the leg meets the body (inguinal area) or in the broad flat area where the neck joins the back. A 23- or 25-gauge needle is carefully inserted just under the tissue-thin skin; a blister or bubble will form as warm fluid is expelled, but administration should be discontinued before the skin becomes excessively taut.

b. Intravenous fluids can be given in the medial metatarsal vein (preferred) or the brachial vein using a 23- or 25- gauge butterfly catheter to administer a bolus of warmed LRS. Once the needle is withdrawn, digital pressure should be used to reduce the risk of hematoma formation.

c. Intraosseous fluids are given using a spinal needle positioned in the distal ulna. Additional information is provided in the listed reference.

4. Calculating Fluid Needs

a. Weigh the bird using a metric scale. Add 10% to this weight to allow for probable dehydration.

b. Maintenance and rehydration fluid volumes are calculated separately although they are given at the same time. Fluid therapy should be administered in three doses spread throughout the working day.

c. To calculate maintenance fluids, determine 5% of the corrected body weight in grams. This corresponds to the total number of milliliters or cubic centimeters required by the animal in a 24-hour period.

d. To calculate replacement fluids, determine 10% of the corrected body weight in grams. This corresponds to the total number of milliliters needed to correct the fluid deficit. Replacement fluids are usually given over a three-day period, with 50% given on day 1, and 25% on days 2 and 3, via three daily injections for a total of nine injections.

e. Example: A 550-gram hawk is estimated to be 10% dehydrated. What are its fluid needs for the next three days?

1. Actual body weight is 550 grams plus 55 grams = approximately 600 grams.

2. Maintenance fluids: 5% of 600 grams is 30 grams, which corresponds to 30 ml, to be given in three daily 10 ml boluses.

3. Replacement fluids: 10% of 600 grams is 60 grams, which corresponds to a calculated deficit of 60 ml. This will be given over a three-day period (30 ml on day 1, then 15 ml on days 2 and 3) in three separate boluses each day.

4. Combined fluid needs (assume no voluntary intake) are then:

Day 1: 60 ml (30 ml M + 30 ml R) divided into three 20 ml volumes

Day 2: 45 ml (30 ml M + 15 ml R) divided into three 15 ml volumes

Day 3: 45 ml (30 ml M + 15 ml R) divided into three 15 ml volumes

f. Additional information for pelicans and cormorants:

Oiled pelicans with dehydration => 10%; body weight (BW) 2.8 kg.

Corrected BW=3.08	154 ml maintenance fluids
	308 ml replacement fluids
	462 ml
Oral fluids: 120 cc tid	360 cc
IV fluids: 100 cc	100 cc
	460 cc

Oiled cormorants with dehydration =>10%. Body weight = 1.2 kg.

Corrected BW=1.32 kg	66 cc maintenance fluids
	132 cc replacement fluids
	198 cc
Oral fluids: 40 cc tid	120 cc
SQ fluids: 40 cc tid	80 cc
	200 cc

5. Administration of oral fluids

a. Materials: prepared fluids, syringe (20 to 50 cc), adapter, appropriately sized catheter (feeding tube).

b. Determine volume needed on basis of species and weight (see 4 above). Draw up slightly more than is needed.

c. Heat the fluids by placing them in hot water until they are just warm to the touch (approximately 100° F). Be cautious of fluids being too hot -- they can scald the lining of the esophagus and crop.

d. Measure the catheter by holding it along the side of the bill and neck. Determine how much catheter should still be exposed once the tip has reached the crop area (base of neck). FIRMLY attach the catheter to the adapter and the adapter to the syringe.

e. Expel excess fluid to empty catheter of air.

f. Hold the bird's head by placing your fingers behind the jaw. Extend the neck up and forward. Open the bill and slowly insert the catheter down the side of the throat; no resistance should be felt and the bird should not gag. Feel the outside of the bird's neck along the trachea; the catheter should be seen or palpated as it is being inserted. **ALWAYS** check the glottis to make certain that the catheter is not inserted into the trachea.

g. It is safe to allow the bird's bill to close slightly over the tube; this is often more comfortable than holding the mouth open. The edges of the bill are not as sharp near the commissures (corners of the mouth). **CAUTION: ALWAYS** leave enough tube exposed so that the hand holding the head can grasp the end of the tube; this ensures that the bird will not pull his head away, tearing the tube from the syringe and leaving the tube in the throat.

h. Expel the flood slowly, pausing briefly after each 5-cc bolus. If the bird begins to choke or regurgitate or if food begins to back up in the throat, pinch off the tube and remove it slowly. Allow the bird to shake its head and neck. Do not administer additional fluids at this time.

i. Once the fluid in the syringe is low, be careful to halt the feeding before any air is expelled into the gastrointestinal tract. Pinch the tube to prevent drips and possible aspiration, and slowly withdraw the tube.

6. Indwelling IV catheter placement

The following information should be posted in the medical tent for quick reference; a large version for copying and posting is on page 2.21.

a. Remove oil from leg.
b. Clean leg with Betadine.
c. Wipe leg with alcohol.
d. Place catheter in leg and cap with injection cap.
e. Heparinize catheter.
f. Use 1/2-inch tape to "v-wrap" catheter to leg.
g. Place a 1 X 1 sterile gauze pad with antibiotic ointment over the site.
h. Tape the catheter securely in place.
i. Administer fluids.
j. Cover with vet wrap (including cap).
k. Check (✓) box on Satellite Triage Data Form.

MEDICATIONS

Dosages and routes of administration for some commonly used medications are given below.

1. **DEXAMETHASONE SODIUM SUCCINATE** - Use of this steroidal anti-inflammatory is indicated for birds which are in danger of shock or which have experienced head or spinal trauma. The anti-shock dose (2 to 4 mg/kg) is given intravenously (preferred) or intramuscularly into the pectoral muscle area. If given intramuscularly, volumes greater than 1 ml are given at multiple sites to minimize muscle damage. Birds with traumatic injuries are also treated at a dosage of 2 to 4 mg/kg. While the initial injection is intravenous or intramuscular, a maximum of two additional subcutaneous injections can be given. **Prolonged use of this drug is not recommended.**

2. **SODIUM BICARBONATE** - This drug is indicated ONLY for "shocky" birds or those suspected of metabolic acidosis. This drug should be used very conservatively to minimize the risk of iatrogenically induced alkalosis. Dosage is 1 mEq/kg to a maximum of 4 mEq/kg, administered subcutaneously over the pectoral muscles.

3. **BROAD-SPECTRUM ANTIBIOTICS** - Safe and inexpensive antibiotics such as the trimethoprim sulfa preparations (TMS) can be used empirically when lacerations, open fractures, respiratory disease or intestinal bleeding are present. (TMS is contraindicated if severe kidney disease is present). Treatment is given twice daily for five to seven days.

   Oral suspension (40 mg trimethoprim and 200 mg methoxazole per ml) is administered subcutaneously at a dosage of 0.1 ml/450 g.

4. **EUTHANASIA SOLUTIONS** - Veterinary supervision is required for most commercial solutions. Small animal dosages should be administered by intravenous injection to ensure a rapid and humane death. In very small birds, injections can be given in the jugular vein. Consult euthanasia guidelines, outlined below.

5. **OPHTHALMIC PREPARATIONS** - Non-steroidal antibiotic solutions can be used when ocular lesions are present; ointments are used for minor skin injuries.

EUTHANASIA GUIDELINES

1. Euthanasia should be considered for a bird which has serious injuries that will require extended treatment or will render it unable to survive in the wild. Serious injuries can include fractured limbs (particularly those near or involving a joint) injuries to the beak, extensive soft tissue injuries, and significant visual or auditory deficits.

2. When large numbers of birds are contaminated in a spill, it may be necessary to treat them selectively so medical attention can be given to those with the greatest probability of survival. However, an effort should be made to save every bird and two to three days should be allowed before making a final decision. Three criteria which can be used to establish prognosis are **packed cell volume (PCV), relative weight** and **body temperature**.

   Birds having a PCV of less than 20% may require an extended period of treatment, and are thus at a greater risk of developing secondary complications. This is especially true for seabirds which may have little resistance to terrestrial disease organisms. Birds which are both underweight and hypothermic (relative to other birds of the same sex/species involved in the spill) have been shown to have a significantly decreased survival rate. A bird having consistently low body temperatures (less than 100° F) despite attempts to warm it should be considered a poor risk.

3. Birds showing signs of infectious disease should be isolated, and either supported until a diagnosis is made or euthanized and necropsied. Birds with lesions characteristic of avian pox (warty lesions around the eyes, mouth or on the feet) should be isolated and precautions taken to prevent exposure of other birds. Other signs which should arouse suspicion include bloody or mucous discharge from eyes, nose or mouth; moist or gurgling respiratory sounds; watery or bloody diarrhea; regurgitation; rapid weight loss; or pronounced neurologic signs.

4. Birds that show signs of chronic disease, such as extreme emaciation, have a very poor prognosis. Consider euthanasia for a very underweight bird that has wasted pectoral musculature and a prominent keel. **(NOTE: the keel is *normally* very prominent in species such as herons and egrets.)** Birds at the end of winter or which are completing migration may also have reduced muscle mass with no underlying disease process. Severely dehydrated birds are often underweight but will gain weight rapidly with rehydration.

5. The degree of oiling, the temporary presence of bleeding from the GI tract, and molting are NOT considered adequate grounds for euthanasia.

6. Approval by state or federal agents is required before birds of certain species can be euthanized. These include threatened or endangered birds, unusual birds with small local populations, and species with low reproductive potential. *Note: these lists vary from state to state and change from year to year. The Program Director should ensure that appropriate lists are updated so that this information is available immediately in the event of a spill.*

7. Chemical injection is the only technique PSRC uses for euthanasia.

    1. Injection, according to dosage guidelines, of a commercial euthanasia solution with prescribed routes usually being the medial metatarsal, right jugular or brachial veins will quickly and painlessly kill most birds.

    2. Most euthanasia solutions are restricted drugs and subject to control by the Drug Enforcement Administration; professional supervision and inventory control is required. All solutions must be obtained through a veterinarian.

    3. All animals euthanized by this method must be disposed properly after necropsy so that they do not become food for carrion eaters.

8. Refrigerate all birds until necropsied. Post mortems conducted in-house can yield information which will help in determining treatment protocols for live birds at the facility or for future spill emergencies. All other carcasses should be disposed of as directed by the U.S. Fish and Wildlife Service.

BIRD WASHING COMMITTEE
Committee #4

Purpose: To remove all oil from birds and restore the natural water-proofing of their feathers using methods which cause minimum stress for the birds. The committee is also responsible for disposing of waste water and oil in a proper manner in barrels supplied by the spiller or the Florida Department of Environmental Protection, if the spiller is not identified.

Washing Committee Organization

Group Leader: Oversees washing operation (usually a wash team leader)
Wash team: Two to four people per team
- Team Leader
- Bird Holder
- Bird Washer (one or two if needed)

Assistants: one person per wash team
Water team: one person per wash setup and one safety training person for all teams
Support staff: two to four people (if needed and available)

Responsibilities to prepare the committee:

1. Work with the Training, Operations Control and Volunteer Coordination committees to conduct hands-on workshops which provide committee members and other volunteers with appropriate training methods for washing oiled birds and other wildlife.

2. Provide refresher courses at least once a year to retrain committee members.

3. Stay aware of new products and techniques used to clean oiled wildlife, and review their effectiveness for local conditions and likely scenarios.

Responsibilities during a spill include:

1. Wash oiled birds until oil is completely removed and rinse until waterproofing is re-established.

2. Test water for softness at the start, and repeat as necessary. Water softness is important for protecting feathers while washing oiled birds.

3. Correct disposal of oiled water is crucial to this phase of the project.

4. Protective suits and gloves must be worn by all volunteers and staff who handle oiled birds. Ensure that used protective wear is disposed of properly.

5. Try to keep bird-washing teams on short shifts during the heat of the day to avoid heat exhaustion. Address weather conditions appropriately.

6. Provide all members of the bird-washing team with a copy of the detergent concentration chart *(provided on page 2.28)* or post the chart in an accessible location.

7. Order supplies through Operations Control.

8. Ensure appropriate number of wash teams (two to four) are scheduled at all times, with a minimum of one trained and experienced individual per team.

Job Definitions and Duties

Group Leader:

- Assumes responsibility for overseeing the entire washing operation.
- Delegates responsibility as needed to other qualified people.
- Stays in contact with medical and rehab leaders in order to evaluate the condition of the birds and maintain a smooth operation.
- Pre-schedules birds 24 hours in advance when possible.
- Works with carpenters and plumbers to plan and maintain the equipment and areas used in the washing process.

Team Leader:

- Leads an individual wash team. Assumes responsibility for working on the bird's head area.
- Must be familiar with all aspects of the washing and rinsing process and be able to train new washers while performing his or her own washing duties.
- It is essential that the team leader have experience handling sea birds and/or mammals, and can identify undocumented injuries and signs of stress.
- Assumes responsibility for the health and safety of team members. While the objective is a clean and healthy bird, the team leaders' first responsibility is to their volunteers and they must maintain a careful watch for signs of fatigue in the washers and other safety hazards.

Bird Holder:

- Holds the bird during the washing and rinsing process. Special care must be given in the way the bird is restrained depending on the species and condition.
- Bird-handling experience is a must! Bird must be kept as immobile as possible. Be firm but gentle.
- This can be a physically demanding job and the holder should be in good shape. Remember, a single washing/rinsing can take as much as an hour or more.

Bird Washer(s):

- Assumes responsibility for washing oil from body of bird.
- It is preferable that the bird washer(s) and team leader stay together as a team from bird to bird. Familiarity developed while working as a team allows operations to flow better and more efficiently.

Assistant(s):

- Assists team leader and wash team as a nurse would assist an operating team.
- Passes cleaning tools and materials to team leader and washers, as directed.
- Cleans area of contaminated materials and restocks supplies.

Water Team:

- Maintains the wash area by filling, emptying and cleaning the wash tubs.
- Responsible for mixing the detergent in exact percentages (concentrations) and maintaining the water within two degrees of the determined temperature.
- Water team leader (and experienced hazmat-trained individual) are responsible for the proper disposal of waste water and materials, safety in the entire wash area and training new team members.

Support Staff (if needed and available)

- Assume responsibility for keeping accurate records, filling in appropriate forms as dictated by wash team leader.
- Also assist with bird transport/drying, moving birds to and from washing area as directed by medical supervisor or group leader. Pat rinsed birds dry before moving them to the designated drying area(s).
- Run errands and messages; may prove invaluable if the operation is extensive.

MEDIA COMMITTEE
Committee #5

Purpose: Assumes responsibility for coordinating all contact with media to ensure that all communication messages are clear, accurate and consistent. If possible, the committee chair or lead media contact should have some prior experience in media relations.

This committee will also be responsible for media releases that announce meetings, training, fundraising, volunteer needs, supply needs, etc.

Responsibilities to prepare the committee:

1. Develop a local and regional media database (daily and weekly print media, radio, television and cable). Get fax numbers as well as telephone numbers, addresses, names of environmental reporters and editors, and deadlines for the calendar or magazine sections of the newspapers.

2. Develop contacts and a database of local and/or regional organizational newsletters or bulletins. Include those distributed by local government agencies, environmental organizations, civic clubs, fishing clubs, animal welfare groups, etc. Collect the same information as listed above.

3. As needed by the Program Coordinator, write and distribute media releases announcing meetings, volunteer needs and training sessions.

Responsibilities during a spill include:

1. Assume responsibility for releasing initial announcement as soon as possible during a spill emergency, requesting trained and untrained volunteers. Obtain accurate information from Operations Control. Send announcement to the media contacts in the database that cover the area in which the spill occurred, or a priority list of media (the largest media outlets).

2. Schedule specific times for media interviews, tours and photo opportunities.

3. Designate lead media contacts for the organization, and ensure that one is on site at all times.

4. Allow no unauthorized interviews or media visits beyond a certain point without special permission from the lead media contact on duty or a guide from Operations Control.

5. Working with other committees, develop a list of items that are top priorities for possible donations. Particularly in caring for animals, there are certain items that, more than likely, have not been pre-collected, such as playpens, towels, bleach, eye wash, etc. These should be the first items requested via media announcements.

6. Designate a site well away from the actual staging area for media relations. The clamor of media people is stressful on the birds and other committees trying to accomplish their jobs. It is beneficial to schedule specific time slots for different types of media visits.

7. Write and distribute daily new updates to all media contacts including a factual press release based on information provided by Operations Control with exact numbers of animals treated or being cared for, volunteer and donation needs, etc.

8. Only the lead media contact or her/his designee (possibly the committee chair) will speak on camera and be responsible for accuracy with all information.

9. As time and availability of individuals permits, schedule interviews with different committee leaders, such as Medical, Washing, Construction and Operations Control. This will keep the media interested in your activities, and answer their questions in greater depth.

10. Instruct all volunteers to direct any unescorted media representatives to the appropriate location to meet that day's lead media contact for factual releases and a proper escort.

COMMUNICATIONS COMMITTEE
Committee #6

Purpose: To coordinate logistics for obtaining and maintaining all communications equipment (telephones, mobile/cellular phones, faxes, beepers) and transmission lines.

Responsibilities to prepare the committee:

1. Establish contact with the city/region's Emergency Operations Coordinator (E.O.C.) and develop a protocol to work together in the event of a spill.

2. Contact telephone and mobile phone companies to secure the names of appropriate people and commitments from them for assistance in the event of a spill. Find out about the companies' emergency planning. Accurate information (names, direct phone lines for key individuals) at each company willing to help will expedite efforts in the event of a spill.

   If competitive service is available, in addition to looking for the best prices, consider how quickly they can set up the necessary transmission lines during an emergency. Investigate transmission strength for cellular service. There may be some "dead zones" where service is weak or non-existent.

   Note: Complete this step for each region or major port that your organization expects to serve in the event of an oil spill.

3. Work with the phone companies to establish a company code number to activate new lines. This will prevent unauthorized individuals requesting unnecessary lines.

4. Secure needed equipment (donated or purchased) such as beepers, phones, facsimile machines, cell phones for rescue teams, modems, etc.

5. Establish contact with ham radio operators or clubs, as deemed necessary.

Responsibilities during a spill include:

1. Immediately contact phone companies to set up the necessary number of lines at the designated staging site, satellite triage (if established) and rescue sites where boats are docking if they are not using cell phones.

2. Set up all equipment at the staging site, and secure additional equipment as necessary. Have cell phones for each land and water rescue team (or use ham operators).

3. Maintain all equipment in good working order during the spill.

CLEANING COMMITTEE
Committee #7

Purpose: To keep wildlife cages, holding areas, pools, volunteer areas and general compound area clean. It is important that the compound be kept neat and clean for sanitary reasons as well as to keep clutter and confusion to a minimum. The committee is also responsible for separating recyclable materials from regular trash (cans, glass, plastic, paper/cardboard, etc.).

The Cleaning Committee is ***not*** responsible for cleaning oiled wildlife, and trained hazmat volunteers on the Bird-Washing Committee are responsible for disposing of wastewater and used protective clothing.

Responsibilities to prepare the committee:

1. Develop protocol outlining which cleaning supplies should and should not be used together, which are appropriate in wildlife areas, and methods to conduct the cleaning (this may not be readily apparent for some areas like the large pools). Be aware that some cleaning materials can have toxic chemical reactions when mixed together, such as ammonia and bleach. **Dawn dish detergent contains ingredients that react with bleach. These two products should never be combined.** Make sure all volunteers read and understand the protocol before they begin any work.

2. Develop a work plan including schedules of how often different areas need to be cleaned (or checked) and work with Operations Control (and other committees) to develop a schematic plan for dumpsters, trash barrels and recycling bins.

3. Establish list of local waste hauling companies to order dumpsters and waste removal services if potential staging and triage sites are not already serviced.

Responsibilities during a spill include:

1. Maintain clean cages and holding areas. Maintain an ample supply of unfolded newspapers (used to cover the bottoms of cages).

2. Dispose of all trash and used supplies in the proper manner.

3. Establish system for all recyclable items to be kept separate from other waste (cans, bottles, plastics, other).

4. Ensure adequate supply of trash bags are on hand for disposal of trash.

5. Handle all laundry (washing/drying). Ensure that all necessary supplies such as coins, detergent, bleach, etc. are on hand.

6. When cleaning oiled cages, water must be contained and disposed of in a proper manner (following OSHA hazmat guidelines). Oiled water can be dangerous to the environment and people in this job must be familiar with hazmat guidelines.

FOOD COMMITTEE
Committee #8

Purpose: To identify suppliers and ensure there is an adequate supply of food for wildlife and volunteers throughout the duration of the spill response.

The Food Committee is divided into two subcommittees, one responsible for birds and wildlife, the second for volunteers and staff.

Bird Subcommittee

Responsibilities to prepare the subcommittee:

1. Food needs will vary depending on the species involved. Working with the program coordinator, develop lists of preferred foods for each potential species, including approximate amount of food needed per patient.

2. Contact food wholesalers and vendors who may be willing to donate food for the birds in the event of an emergency. Secure commitments.

3. Maintain an updated list of food suppliers with contact names, amount of food they have committed to provide, accurate phone numbers and addresses. *(See recommended form on page 2.47.)*

Responsibilities during a spill include:

1. Establish contact with the listed suppliers, and depending on species involved, begin collecting food donations immediately.

2. Keep a daily running inventory of fish, meat and other items needed, and ensure that an adequate supply is on hand at all times.

Volunteer Subcommittee

Responsibilities to prepare subcommittee:

1. Contact restaurants, food wholesalers and vendors who may be willing to donate food and drinks for volunteers. Get commitments. Needs will include breakfast, lunch, dinner and snack foods. Try to get bottled water, juices, Gatorade, sodas (diet, flavored, clear and non-caffeinated). Provide vendors with examples of food and snacks, microwaveable items, etc., that you will need. Fast food is fine, but "real food" and salads are also necessary.

2. Research and contact other resources, such as womens clubs, churches and civic groups, in advance and keep numbers and contacts handy. Explain the type of commitment needed in the event of a spill. These groups can be an outstanding source for donated desserts, casseroles and other food items.

Responsibilities during a spill include:

1. Call all contacts, including restaurants, food wholesalers, vendors and church and civic organizations to secure food for volunteers for the duration of the spill response.

2. Maintain a daily inventory of all items donated and what is on hand to avoid excess inventory which leads to spoilage and waste. Include condiments, snack foods, sugar, cream, coffee, cups, plates, napkins, utensils, etc. as well as meals and drinks, in the daily inventory.

3. Ensure that food and drink is available for volunteers 24 hours a day. (Predator/Security Control may get hungry at 3:00 a.m.!)

4. Maintain a complete list of all vendors, individuals and organizations who donate food, with addresses and phone numbers for thank you letters and telephone calls.

5. Have a list of volunteers available to pick up food donations. Companies which are providing donated foods may not be able to deliver it to the compound.

CONSTRUCTION COMMITTEE
Committee #9

Purpose: To build free-flight cages/pens, enclosed pool areas, and (as necessary) tables for examining and washing oiled wildlife. Where possible, build structures so that they can be disassembled and stored for multiple uses.

Responsibilities to prepare the committee:

1. Develop diagrams and material needs for each structure (examining and washing tables, flight cages, rehabilitation pools). Sizes of some will be dependent on the typical bird species in your area. Work with the Plumbing and Electrical committees to incorporate these needs. It may be wise to develop lists of needs for various spill scenarios (small vs. large). *PSRC has provided a site plan and very specific diagrams, specifications and instructions for building temporary shelters for recuperating birds constructed during the August 1993 oil spill following this section.*

2. Work with Supply Requisitioning Committee to obtain necessary building materials (heavy plastic, lumber, screening, etc.) for construction of structures that can be completed ahead of time. Ensure that materials are available to set up a staging or triage area for a small spill. Tables, as well as parts for flight cages and rehabilitation pools, can be made in advance and disassembled for storage.

3. Construct or obtain* examining and washing tables. You are likely to need four to six examining tables 3½ feet wide, eight foot long and 36 inches high, and the same number of washing tables in dimensions of 3½ feet wide, eight foot long and 32 inches high. **Note: Sturdy, durable, plastic folding tables are available from most office supply stores for approximately $100. They are waterproof and last longer than wood tables, if your organization can afford them or have them donated.*

4. Swimming pools for rehabilitating birds (particularly in larger spills) must be lined with heavy plastic and be approximately 20 inches deep. Diameter and size will vary according to the size of the pens and the species they will contain.

Responsibilities during a spill include:

1. Assemble structures which were prepared ahead of time. Working with Operations Control, perform any construction needs as they arise.

2. Depending on location, all wildlife areas may have to be constructed to keep out pests and predators (rats, raccoons, dogs, snakes, etc).

3. Provide lists of materials necessary for construction of additional structures to Supply Requisitioning.

4. Be available for repair or additional construction work as necessary.

PLUMBING COMMITTEE
Committee #10

Purpose: To provide water required in washing areas and rehabilitation pens/pools as well as water for consumption by birds and volunteers.

Responsibilities to prepare the committee:

1. Meet with the Operations Control, Washing, and Rehabilitation committees to determine all the water needs of a successful oiled wildlife response staging. Develop diagrams and material needs for supplying water to each area where it is needed. Washing protocol requires soft, hot water, therefore a water softener may be necessary. *Detailed schematics of plumbing requirements used during the 1993 spill in Tampa Bay following this section.*

2. Work with Supply Requisitioning to obtain necessary materials to be prepared in the event of an oil spill.

Responsibilities during a spill include:

1. Assemble plumbing system necessary for washing area, pens and pools. Work with Operations Control and respond to additional plumbing needs as they arise.

2. Be available for repair work, as necessary.

ELECTRIC COMMITTEE
Committee #11

Purpose: To provide all electric, lighting, heating and cooling needs of the staging and triage areas and other committees.

Responsibilities to prepare the committee:

1. Meet with Operations Control, Medical, Bird Washing, Communications, Rehabilitation and other committees as necessary, to determine all electrical needs of a successful oiled wildlife response staging.

   Needs will include power for lighting, pumps, water heater and softener, lab equipment, microwaves, heating and/or air conditioning, office equipment, etc.

2. Develop diagrams (placement of equipment) and list of materials necessary to meet all power needs. Work with Supply Requisitioning to obtain necessary materials in advance so they are available to quickly establish the staging and triage areas.

Responsibilities during a spill include:

1. Work with Operations Control and the Construction committees provide electrical power to all areas of the compound.

   Electrical safety codes must be adhered to strictly.

2. Be available for repair work, or adding stations, as the need arises.

LAND & SEA RESCUE
Committee #12

Purpose: To handle all land and sea (boat) rescues of oiled birds and other wildlife in a manner that is safe for the rescuers and wildlife, and causes the least damage to the environment.

This committee will have two subcommittees responsible for land rescues and sea rescues. All rescue volunteers *must* have some experience in handling wildlife. Unnecessary injuries to both wildlife and their rescuers can be caused by inappropriate or rough handling techniques.

Rescues are conducted at the individual's risk. All volunteers must sign a liability release form before any rescue begins.

Responsibilities to prepare the committee (all rescuers):

1. All volunteer rescuers should receive training and education on the following issues:

   a. Safety comes first -- for volunteers and animals. All volunteers must have the minimum four hours of OSHA hazardous material training. This training should be coordinated by the Training Committee.

   b. Wildlife-handling training -- demonstration workshops are good, but it may be more beneficial for new volunteers to assist with rescuing un-oiled birds during routine wildlife rescue efforts throughout the year.

   c. Local environmental and habitat issues -- knowing how to maneuver through seagrasses, mangroves and other sensitive habitat is important to reduce damage. Again, this effort should be coordinated by the Training Committee, and may be beneficial to other volunteers and committee members.

2. Compile Rescue Kits in preparation for oil spills. *Rescue Kits have been assembles and are available in the Tampa Bay area from PSRC. The materials for these kits was made possible as part of the grant which also provided funding for the publication of this handbook. See page 2.30 for recommended materials.*

3. Identify vehicles and boats, as well as boat operators, which will be available for rescue activities. Also identify local ham radio operators clubs. They may be invaluable during rescue missions.

4. Designate one volunteer to be at the boat launching area at all times to coordinate rescues with Operations Control. A permanent phone line should be established at this site, or the volunteer should be reachable by cell phone. Bird sightings called into the main staging area will be relayed to this coordinator, as well as other information.

5. All rescues of oiled birds are conducted at the volunteer's risk. Make sure all volunteers understand this. Develop a release form with assistance from an attorney for volunteers to sign before any rescue activities begin.

Responsibilities during a spill include:

1. Have all volunteers sign the release form and make sure all have received the required training if they will be handling birds directly.

2. Ensure all volunteers have and wear protective clothing. This should be provided by the rehabilitation organization or the spiller.

3. Distribute cellular or mobile phones (received from the Communications Committee) with important phone numbers to each rescue team. Communicating with rescue teams can be difficult, so providing phones or two-way radios is critical. More times than not, cellular phones will not be available, so ham radio operators will be critical to rescue attempts.

4. Register all vehicles and boats that will be used for rescues with an agent of the organization so damage claims can be authorized.

5. Cover all boat decks and seats with a protective sheeting material (disposable if contaminated with oil).

6. Once caught (or netted) and brought into boat or to shore (if wading), either wrap the bird in a sheet or towel or place in a box. Transport bird **without delay** to the satellite triage or main staging area (whichever is closest) for immediate medical care in a temperature-controlled vehicle.

   No bird is to be kept in a rescued condition until one "gets as many as possible." Time is not on their side and the more quickly they are treated, the more likely they are to survive.

Some general rescue do's and don'ts:

1. DO lure, coax, or entice a bird to come to you with fish rather than chase the bird. They will be more likely to come to you than fly away.

2. DO NOT use cast nets.

3. DO NOT smoke near oiled or non-oiled birds.

INVENTORY CONTROL/INFORMATIONAL SIGNS
Committee #13

Purpose: To keep track of all inventory, incoming donations and donor information, and to maintain operations in the supply tent. This committee is also responsible for constructing signs necessary to direct volunteers and keep the rehabilitation staging area running smoothly.

Responsibilities to prepare the committee:

1. Construct the signs necessary for a smooth operation. *(A list of signs that are usually needed is on page 2.44; you can augment or delete as appropriate for your organization.)* Four-inch letters are recommended so signs can be easily read.

2. Develop inventory and record-keeping sheets to be used during a spill. All committees will develop lists of needed materials and provide them to Supply Requisitioning. Work with this committee and the lists; it is suggested that inventories be kept separate by operation, i.e., all medical supplies on one, bird-washing items on another, or develop your own system. Inventories for items used by multiple committees (gloves, serinax suits, towels) can be kept on separate lists.

   Other record-keeping forms will be needed for checking supplies out, maintaining daily records of the number of items used, and registering donations. An index card system may work well for recording donor information. *(See pages 2.45 to 2.48 for recommended forms.)*

3. Develop a floor/shelf plan or diagram for storing supplies and designate a location for receiving and distributing supplies. Designate different groups of items with letters (i.e. A = medical supplies, B = bird-washing) or names. These will be used on signs to designate the respective areas.

4. Develop a system for receiving, inventorying and distributing supplies, and brief committee members on how the system works.

Responsibilities during a spill include:

1. Work with Operations Control to determine a site for supply storage (usually a large tented area or a separate area within a building), and have several volunteers begin to inventory and store items in designated areas according to your floor/shelf plan. Develop and update maps listing the location of specific items or groups of items so that subsequent volunteers can find them.

2. Have several trained volunteers ready at a designated site to receive donations and keep inventory. Once items are added to inventory, and donation information taken, they should be designated as ready for distribution.

3. Post signs previously made at appropriate locations around the staging area or distribute signs to respective committees for posting once their areas are established.

4. Notify Supply Requisitioning when levels of any item get low. They will determine if it is something they can request donations for.

5. If remote collection stations are warranted (government offices, stores, etc.), designate volunteers to check stations daily and pick up donated supplies.

6. Maintain supply tent operations with two volunteers per shift from 8 a.m. to 8 p.m. or until caretaking of the animals and most activities have ceased for the day. A night crew may be needed as long as medical and washing teams are working.

SUPPLY REQUISITIONING
Committee #14

Purpose: To coordinate purchases or donations of supplies for all committees and their specific needs during a spill. It may be helpful to divide committee responsibilities into three areas: medical supplies; construction supplies (building, electrical, plumbing); and general supplies.

Responsibilities to prepare committee:

1. Ask all committees to generate and provide a list of supplies and equipment they will need during a spill.

2. Develop a list of all businesses who can fill supply needs, either as donations or through purchases. Secure at least two points of contact at each business; have names, addresses, phone/fax numbers, and the list of supplies each can provide on file. *(See recommended form page 2.47 and 2.48.)*

3. Write letter to business community soliciting donations. *(See sample letter on page 2.14.)*

4. Keep copies of the lists of supply needs by committee and by businesses or items needed (since there may be overlap) in this section of your handbook.

5. Suppliers should be called annually to update them on the program and keep them involved and aware of your organization's ongoing activities and needs. Annual calls also should be used to update the master list of suppliers.

Responsibilities during a spill include:

1. Order items needed for all committees to operate at optimum efficiency. No item will be ordered directly by the sub-committees. and all requests must be approved by Operations Control before ordering.

2. Always check with the Inventory Committee before requesting supplies to confirm that items are not in stock.

3. Work with the Media Committee to develop daily announcements of supply needs that can be met through donations.

4. Keep track of new suppliers/businesses that may surface during the spill emergency and can provide needed supplies.

5. Maintain accurate records of purchases. This will be particularly important if the spiller is known and required to pay for all operation costs.

REHABILITATION COMMITTEE
Committee #15

Purpose: To continue the care and rehabilitation of all birds according to instructions of the Medical Committee, including critical care, feeding, misting and cleaning cages, and keeping accurate medical records of the care given.

Responsibilities to prepare the committee:

1. All committee members must have experience or specific training in handling wild birds. Volunteers working in critical care will be experienced wildlife rehabilitators, avian veterinarians or veterinary technicians.

2. Develop protocols for the non-medical activities, such as routines for feeding, misting and cage cleaning. The medical protocols provided in the Medical Committee section will be followed for critical care, fluid therapy and other medical needs.

Responsibilities during a spill include:

1. Provide critical care and rehabilitation for all birds after they have been treated by the Medical Committee.

2. Follow all special instructions for individual bird care according to instructions from the Medical Committee. This will include fluid therapy, exercising, feeding, administering medications, and any other supportive care necessary prior to release.

3. Ensure pens are clean at all times. Work with the Cleaning Committee to share the responsibility of scheduling volunteers to clean cages and drain scrub pans daily. Rotating cages (moving birds from dirty to clean cages) is the most efficient way to accomplish this responsibility.

4. Appoint individuals to be responsible for daily misting of birds to promote preening and waterproofing.

5. Prepare food for birds, and have some ready at all times. Work with Food Committee and Supply Requisitioning to fill food needs.

6. The medical staff and Medical Committee volunteers will assist with this committee's responsibilities as their duties diminish in triage.

ENVIRONMENTAL & HAZMAT VOLUNTEER TRAINING
Committee #16

Purpose: To protect the safety of volunteers and animals by providing all volunteers with training in pertinent areas including safety issues, handling of hazardous/toxic materials, environmental concerns and correct bird-handling practices.

Responsibilities to prepare the committee:

1. Conduct or provide annual hazardous materials (hazmat) training for all volunteers, regardless of their committee assignment and intended exposure to hazardous materials. *(An overview of important information is included on pages 2.49 and 2.50.)* An individual's duties may change, and this allows for easy cross-over between committees. Private companies may be certified to provide this training. Check yellow page listings, contact the local Occupational Safety & Health Administration (OSHA) office, or work with local organizations such as electric utility companies.

2. Conduct or provide environmental training for all volunteers, but particularly for those who will be involved with bird washing and wildlife rescue throughout the year. *(See responsibilities of the Land & Sea Rescue Committee.)*

3. Working with the Volunteer Committee, coordinate Volunteer Indoctrinations.

4. Conduct or coordinate other training, such as bird handling, throughout the year as deemed necessary by Operations Control. This may involve scheduling volunteers for assisting with the daily wildlife rehabilitation program where they will get practical experience.

Responsibilities during a spill include:

1. Conduct daily briefing of new volunteers (i.e. Volunteer Indoctrinations) one to two times each day, or as needed.

2. Depending on current needs -- and number of volunteers who were pre-trained -- conduct hazmat training for new volunteers.

3. Routinely tour the compound to identify any potential safety hazards and rectify any problems.

PREDATOR/SECURITY PATROL COMMITTEE
Committee #17

Purpose: To protect recuperating wildlife from predators such as raccoons, rats or dogs (if pens are outdoors), and to provide security for volunteers.

Responsibilities to prepare the committee:

1. Assist Operations Control with pre-planning the physical layout of the compound to determine security needs and minimize risks to wildlife and volunteers.

2. Determine supply needs and secure them through the Supply Requisitioning Committee ahead of time. Some of the needed items will include:

   ___ Flashlights
   ___ Batteries
   ___ Raincoats and boots
   ___ Insect repellant
   ___ Lawn chairs
   ___ Blankets for cold weather
   ___ Cellular phones (request through Communications Committee)

3. Determine emergency phone numbers and location of emergency medical facilities in all areas where volunteers or staff may be deployed. Keep that information in this section of your handbook, and update it annually.

Responsibilities during a spill:

1. Assume responsibility for the security of both animals and volunteers in the compound.

2. If the compound has outdoor areas, the pens should be made predator-proof. Security patrols will also be needed to guard against predators (raccoons, dogs, snakes, etc.). These patrols will need to operate from dusk to dawn.

3. Escort volunteers to their vehicles and remote areas if necessary. Ensure the volunteer parking area is safe, particularly for nighttime volunteers.

FEDERAL AGENCIES

UNITED STATES COAST GUARD

U.S. Coast Guard Headquarters
2100 2nd Street SW
Washington, DC 20593
Tel: (202) 267-2229

Seventh Coast Guard District
Marine Environmental Protection
909 SE First Avenue
Miami, FL 33131-3050
Tel: (305) 536-5651

Eighth Coast Guard District
Marine Safety Division
Hale Boggs Federal Building
501 Magazine Street
New Orleans, LA 70130-3396
Tel: (504) 589-6901

MARINE SAFETY OFFICES IN FLORIDA:
Marine Safety Office - Tampa
155 Columbia Drive
Tampa, FL 33606-3598
Tel: (813) 228-2198

Marine Safety Office - Miami
Claude Pepper Federal Building
51 SW First Avenue
Miami, FL 33130-1608
Tel: (305) 536-5693 Port Operations

Commanding Officer
Marine Safety Office - Jacksonville
7820 Arlington Expressway
4th Floor
Jacksonville, FL 32206-3497
Tel: (904) 232-2640

Marine Safety Office - Mobile
(covers West Florida Coast to
Fenholloway River/Perry)
150 North Royal Street
P.O. Box 2924
Mobile, AL 36652-2924
Tel: (205) 441-5201

U.S. ENVIRONMENTAL PROTECTION AGENCY
Headquarters Office
401 "M" Street S.W.
Washington, D.C. 20460
Tel: (202) 755-2673

Region 4
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, GA 30365
Tel: (404) 347-3004

Region 6
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733
Tel: (214) 655-6444

U.S. FISH & WILDLIFE SERVICE
District 4, Permit Office
Division of Law Enforcement
P.O. Box 4839
Atlanta, GA 30303
Tel: (404) 331-3555
Fax: (404) 730-3416

U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA)
National Office
200 Constitution Avenue, NW
Washington, DC 20210
(202) 523-8151

Region IV (Atlanta)
1375 Peachtree Street, NE
Suite 587
Atlanta, GA 30367
Tel: (404) 347-3573

Tampa Area Office
5807 Breckenridge Parkway, Suite A
Tampa, FL 33610
Tel: (813) 626-1177
Fax: (813) 626-1177

Ft. Lauderdale Area Office
Jacaranda Executive Court
8040 Peters Rd., Bldg. H-100
Ft. Lauderdale, FL 33324
Tel: (954) 424-0242

Jacksonville Area Office
Ribault Building, Rm 227
1851 Executive Center Drive
Jacksonville, FL 32207
Tel: (904) 791-2895
Fax: (904) 946-1294

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Office of Ocean and Coastal Resource Management
National Ocean Service
1825 Connecticut Avenue, NW
Washington, DC 20235
Tel: (202) 606-4111
coastal zone management

National Marine Fisheries Service
Office of Protected Resources
1335 East-West Highway
Silver Spring, MD 20910
Tel: (301) 713-2239
endangered species, marine mammals, marine habitat

National Marine Fisheries Service
Southeast Region
9721 Executive Center Drive North
St. Petersburg, FL 33702
Tel: (813) 570-5301

STATE & REGIONAL AGENCIES

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Emergency Response
3900 Commonwealth Blvd.
659 Mail Stop
Tallahassee, FL 32399-3000
Tel: (904) 488-0190

District 1
7825 Baymeadows Way
Jacksonville, FL 32256
Tel: (904) 448-4320

District 2
Florida Marine Patrol
POB 21564
Ft. Lauderdale, FL 33335
Tel: (954) 467-5970

District 3
Suite 364
2295 Victoria Avenue
Ft. Myers, FL 33901
Tel: (941) 332-6975

District 4
8407 Laurel Fair Circle
Tampa, FL 33610
Tel: (813) 744-6462

District 5
1832 "B" Avenue
Port Panama City, FL 32401
Tel: (904) 872-7650

FLORIDA GAME AND FRESH WATER FISH COMMISSION
Bureau of Nongame Wildlife
Farris Bryant Building
620 Meridian Street
Tallahassee, FL 32399-1600
Tel: (904) 921-5982
Fax: (904) 921-1847

Northwest Region
3911 Highway 2321
Panama City, FL 32409-1658
Tel: (904) 265-3676
(800) 342-1676 (reporting violations)

Northeast Region
Route 7, Box 440
Lake City, FL 32055
Tel: (904) 758-0525
(800) 342-8205 (reporting violations)

Central Region
1239 Southwest 10th Street
Ocala, FL 32784-2723
Tel: (352) 732-1225
(800) 342-9620 (reporting violations)

South Region
3900 Drane Field Road
Lakeland, FL 33811
Tel: (941) 648-3203
(800) 282-8002 (reporting violations)

Everglades Region
551 North Military Trail
West Palm Beach, FL 33415
Tel: (407) 640-6100
(800) 432-2046 (reporting violations)

FLORIDA MARINE PATROL
for Information (904) 488-5757
Tampa District Office (813) 272-2516
any violations 1-800-342-1821

TAMPA BAY REGIONAL PLANNING COUNCIL
9455 Koger Blvd.
St. Petersburg, FL 33702-2491
Tel: (813) 577-5151

ENVIRONMENTAL ORGANIZATIONS

Some of the groups listed have wildlife expertise, others have good volunteer resources. Contact these organizations annually for local chapters and updated information on leadership.

Florida Wildlife Rehabilitation Association
P.O. Box 1418
Anna Maria, FL 34216
Tel: (941) 778-2385

Pinellas Seabird Rehabilitation Center
840 3rd Avenue South
Tierra Verde, FL 33715
Tel: (813) 867-0368

Gopher Tortoise Council
c/o Dick Franz
Florida Museum of Natural History
University of Florida
Gainesville, FL 32611
Tel: (904) 392-1721

Florida Audubon Society
460 Highway 436, Suite 200
Casselberry, FL 32707
Tel: (407) 260-8300

Florida Native Plant Society
c/o Michael Mingea, Ex. Director
P.O. Box 1474
Goldenrod, FL 32733
Tel: (404) 366-MIKE

Florida Public Interest Research Group
308 E. Park Avenue, Suite 213
Tallahassee, FL 32301
Tel: (904) 224-5304

Florida Wildlife Federation
P.O. Box 6870
Tallahassee, FL 32314
Tel: (904) 656-7113

League of Women Voters of Florida
Natural Resources Committee
540 Beverly Court
Tallahassee, FL 32301-2506
Tel: (904) 224-2545

Manasota 88
5314 Bay State Road
Palmetto, FL 34221
Tel: (941) 722-7413

National Audubon Society
Southeast Region
928 North Monroe Street
Tallahassee, FL 32303
Tel: (904) 222-2473

National Audubon Society
Tampa Bay Sanctuaries
410 Ware Blvd., Suite 500
Tampa, FL 33619
Tel: (813) 623-6826
Fax: (813) 623-4086

Tampa Audubon Society
Post Office Box 320025
Tampa, FL 33679

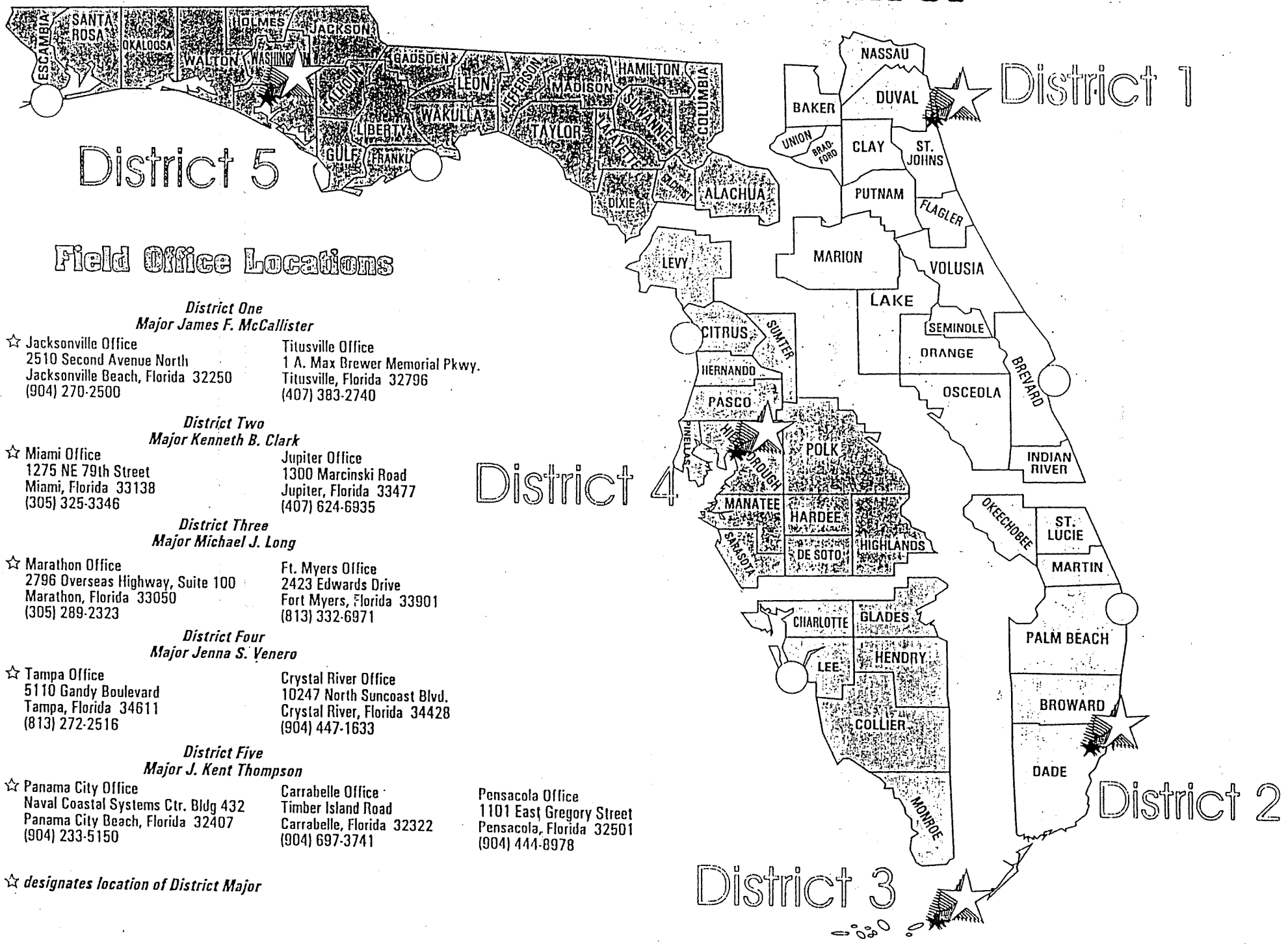
Nature Conservancy
c/o Mary Huffman
P.O. Box 119
Lake Wales, FL 33859
Tel: (813) 678-1551

Project WILD
c/o Tim Roach
620 South Meridian
Tallahassee, FL 32399-1600
Tel: (904) 488-4676

Save the Manatee Club
c/o Judith Vallee
500 North Maitland Avenue
Maitland, FL 32751
Tel: (407) 539-0990
Fax: (407) 539-0871

Sierra Club
SE Region, Florida Branch
1201 North Federal Highway
Room 250 H
North Palm Beach, FL 33408
Tel: (407) 775-3846

Florida Marine Patrol



Field Office Locations

District One
Major James F. McCallister

☆ Jacksonville Office
2510 Second Avenue North
Jacksonville Beach, Florida 32250
(904) 270-2500

Titusville Office
1 A. Max Brewer Memorial Pkwy.
Titusville, Florida 32796
(407) 383-2740

District Two
Major Kenneth B. Clark

☆ Miami Office
1275 NE 79th Street
Miami, Florida 33138
(305) 325-3346

Jupiter Office
1300 Marcinski Road
Jupiter, Florida 33477
(407) 624-6935

District Three
Major Michael J. Long

☆ Marathon Office
2796 Overseas Highway, Suite 100
Marathon, Florida 33050
(305) 289-2323

Ft. Myers Office
2423 Edwards Drive
Fort Myers, Florida 33901
(813) 332-6971

District Four
Major Jenna S. Venero

☆ Tampa Office
5110 Gandy Boulevard
Tampa, Florida 34611
(813) 272-2516

Crystal River Office
10247 North Suncoast Blvd.
Crystal River, Florida 34428
(904) 447-1633

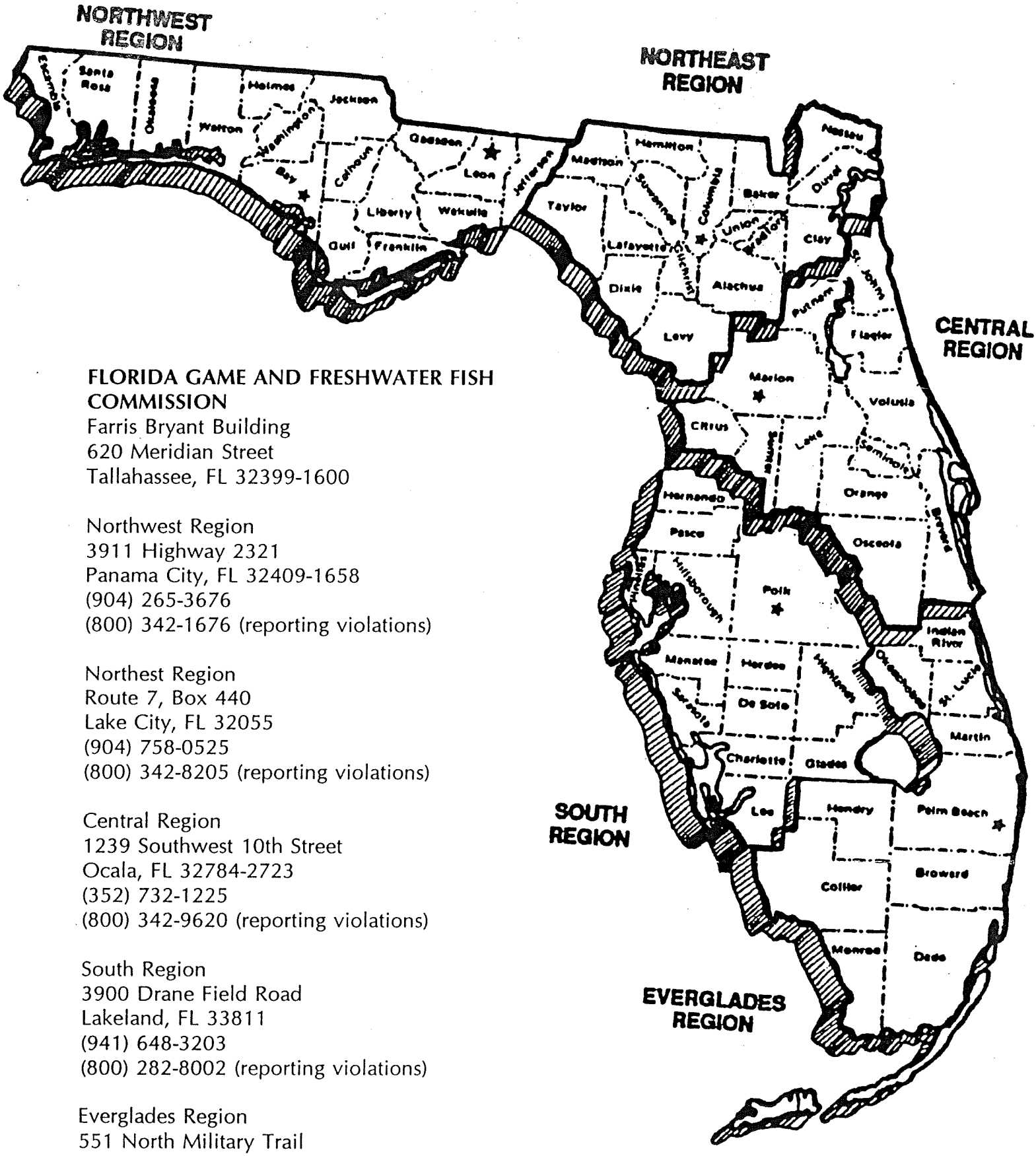
District Five
Major J. Kent Thompson

☆ Panama City Office
Naval Coastal Systems Ctr. Bldg 432
Panama City Beach, Florida 32407
(904) 233-5150

Carrabelle Office
Timber Island Road
Carrabelle, Florida 32322
(904) 697-3741

Pensacola Office
1101 East Gregory Street
Pensacola, Florida 32501
(904) 444-8978

☆ *designates location of District Major*



FLORIDA GAME AND FRESHWATER FISH COMMISSION
Farris Bryant Building
620 Meridian Street
Tallahassee, FL 32399-1600

Northwest Region
3911 Highway 2321
Panama City, FL 32409-1658
(904) 265-3676
(800) 342-1676 (reporting violations)

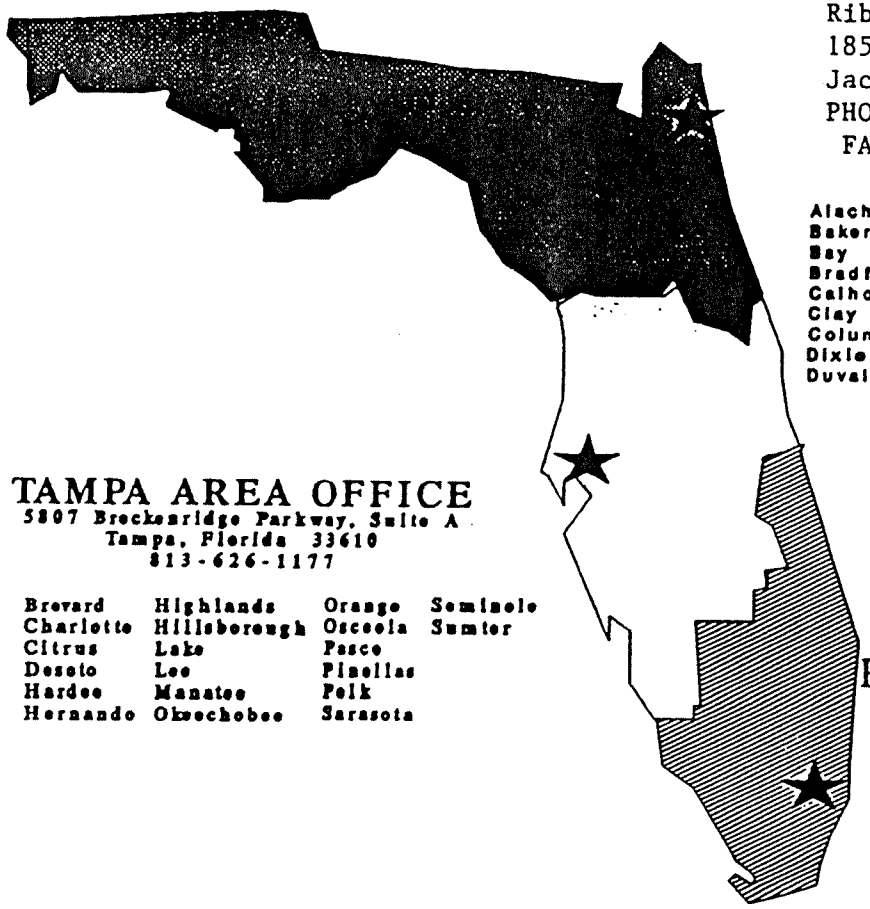
Northest Region
Route 7, Box 440
Lake City, FL 32055
(904) 758-0525
(800) 342-8205 (reporting violations)

Central Region
1239 Southwest 10th Street
Ocala, FL 32784-2723
(352) 732-1225
(800) 342-9620 (reporting violations)

South Region
3900 Drane Field Road
Lakeland, FL 33811
(941) 648-3203
(800) 282-8002 (reporting violations)

Everglades Region
551 North Military Trail
West Palm Beach, FL 33415
(407) 640-6100
(800) 432-2046 (reporting violations)

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration
Florida Offices' Areas of Jurisdiction



JACKSONVILLE AREA OFFICE

Ribault Building, Room 227
1851 Executive Center Drive
Jacksonville, FL 32207
PHONE: (904) 791-2895
FAX: (904) 946-1294

Alachua	Escambia	Jefferson	Putnam
Baker	Flagler	Lafayette	St. Johns
Bay	Franklin	Leon	Santa Rosa
Bradford	Gadsden	Levy	Suwannee
Calhoun	Gilchrist	Liberty	Taylor
Clay	Gulf	Madison	Union
Columbia	Hamilton	Marion	Volusia
Dixie	Holmes	Nassau	Wakulla
Duval	Jackson	Okaloosa	Walton
			Washington

TAMPA AREA OFFICE

5807 Breckenridge Parkway, Suite A
Tampa, Florida 33610
813-626-1177

Brevard	Highlands	Orange	Seminole
Charlotte	Hillsborough	Osceola	Sumter
Citrus	Lake	Pasco	
Desoto	Lee	Pinellas	
Hardee	Manatee	Polk	
Hernando	Okeechobee	Sarasota	

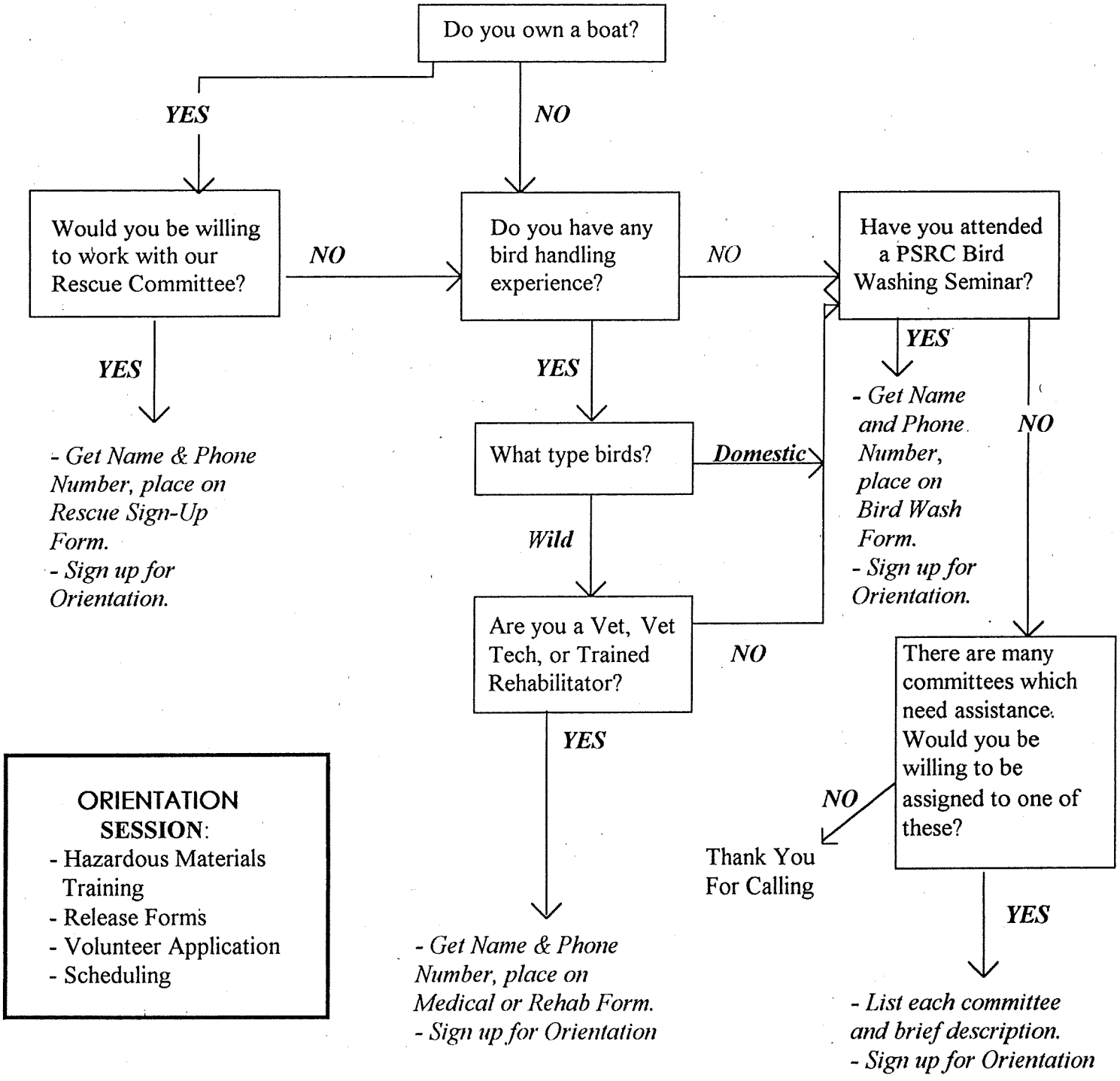
FT. LAUDERDALE AREA OFFICE

Jacaranda Executive Court
8040 Peters Rd., Bldg H-100
Ft. Lauderdale, Florida 33324
305-424-0242

Broward	Hendry	Monroe
Collier	Indian River	Palm Beach
Dade	Martin	St. Lucie
Glades		

FAX# 305-424-3073

Phone Questionnaire



VOLUNTEER SIGN-IN SHEET

NAME	COMMITTEE	HOME PHONE	WORK PHONE	ADDRESS

SAMPLE PSA - CALL FOR VOLUNTEERS

Anyone who wishes to help in the effort to clean and care for the wildlife injured as a result of the oil spill should call:

_____ at _____
Organization Phone Number

Volunteers are needed to assist in the medical tent, and with jobs such as feeding animals and cleaning wildlife areas. However, bird-handling experience is necessary to assist with washing the birds.

All oiled bird sightings should also be called in to _____(phone #).

SAMPLE LETTER TO EMPLOYERS

Dear Mr./Mrs./Ms._____:
Each year about five billion gallons of petroleum products are shipped over 43 miles of navigational channels in Tampa Bay. The bay has had a number of oil spill incidents (large and small) in the past, including 4,000 gallons spilled in 1991 at Port Manatee, and 300,000 gallons spilled in August 1993 at the mouth of the bay, during a three-vessel collision.

In the event of a future spill, volunteer rescue and rehabilitation workers are the backbone of reducing and mitigating damage to wildlife in the Tampa Bay area.

Your employee, _____, is one of a handful of volunteers in our area specially trained to assist in the rescue and rehabilitation of oiled wildlife. In case of an oil spill, he/she may request time off from work to assist in very arduous and time- consuming efforts, which are vitally important to Tampa Bay's wildlife.

We greatly appreciate any flexibility in scheduling that you can provide this employee in the event of a spill. We, of course, hope the necessity never arises, but thank you in advance for your understanding.

Sincerely,

Lee Fox
Director
Pinellas Seabird Rehabilitation Center

SAMPLE LETTER TO THE BUSINESS COMMUNITY SOLICITING DONATIONS

To the Tampa Bay Business Community:

Have you ever thought about how much petroleum transits the 43 miles of navigational channels in Tampa Bay as cargo? The answer is an astonishing five billion gallons a year.

Have you ever thought about what would happen to the wildlife that lives in and around our bay if there was a spill? It could be devastating!

The Pinellas Seabird Rehabilitation Center has been thinking about the potential impact of an oil spill -- and we have been doing something about it! We have formed a trained "Oiled Wildlife Response Team." With 291 volunteers and growing, we are prepared to take care of the region's wildlife during a spill crisis.

But, as a non-profit organization, we operate solely on grants and contributions from the public and environmentally aware companies like yours. To ensure that we are prepared to respond in an emergency, we need to maintain inventories of key supplies. If these materials are available immediately, we can quickly establish wildlife treatment facilities to provide medical attention, shelter and rehabilitation in a clean, organized environment.

Our needs range from medical supplies to office materials and from cleaning compounds to building supplies. We also need food to serve hundreds of hungry birds and the hard-working volunteers who are taking care of them. The attached list of items represents a small part of our needs. If there is an item or area where you can help, please contact our Program Director at _____*(telephone number)*. Or, if you know of someone else who could assist in our efforts, please share this list with them. All donations are tax deductible.

Together we can make a difference to the wildlife in Tampa Bay.

Sincerely,

_____
Director

VOLUNTEER INFORMATION CARD
NAME:
STREET:
CITY: STATE: ZIP:
TELEPHONE: Home: Work:
HOURS AVAILABLE:
VEHICLE OR BOAT AVAILABLE FOR EVENING USE?
POSITION PREFERRED (COMMITTEE & TASKS)
EXPERIENCE:
CHECK WHEN ENTERED INTO DATABASE

VOLUNTEER INFORMATION CARD
NAME:
STREET:
CITY: STATE: ZIP:
TELEPHONE: Home: Work:
HOURS AVAILABLE:
VEHICLE OR BOAT AVAILABLE FOR EVENING USE?
POSITION PREFERRED (COMMITTEE & TASKS)
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STREET:
CITY: STATE: ZIP:
TELEPHONE: Home: Work:
HOURS AVAILABLE:
VEHICLE OR BOAT AVAILABLE FOR EVENING USE?
POSITION PREFERRED (COMMITTEE & TASKS)
EXPERIENCE:
CHECK WHEN ENTERED INTO DATABASE

ENTRY EXAMINATION AND TREATMENT CHECKLIST

Protective clothing MUST be worn by oiled wildlife handlers!

1. Place identification band on bird.

2. Record weight and cloacal temperature.

3. Remove excess oil from head area.

4. Check vent for obstruction.

5. Complete physical exam. Note extent of oiling. Provide appropriate first aid. Identify birds that need additional treatment.

6. Remove excess oil from head area.

7. Swab mouth and nares.

8. Flush eyes with sterile wash.

9. **When conditions indicate, administer intravenous (or subcutaneous) fluids via butterfly catheter. If the bird (pelican) is severely dehydrated and likely to require additional IV fluids, place an indwelling IV catheter in a leg.****

10. Flush GI tract via stomach tube unless the bird is extremely depressed or in shock or seizure. If this is the case, parenteral fluid therapy is indicated.

11. Coat GI tract with Pepto-Bismol.

12. Record all data.

13. Place in appropriate housing to await further treatment or evaluation.

NOTE: DO NOT Subcutane Pelicans

SATELLITE TRIAGE EXAM & TREATMENT

Protective clothing MUST be worn by oiled wildlife handlers!

1. Place identification band on bird.

2. Record cloacal temperature.

3. Remove excess oil from head area.

4. Check vent for obstruction.

5. Complete BRIEF physical exam, note oiling, and any injuries or signs of illness on S.T. Data Form. Provide appropriate first aid.

6. Remove excess oil from legs, wings and body.

7. Swab mouth and nares.

8. Flush eyes with sterile wash.

9. **When conditions indicate, administer intravenous (or subcutaneous) fluids via butterfly catheter. If the bird (pelican) is severely dehydrated and likely to require additional IV fluids, place an indwelling IV catheter in a leg.**

   NEVER subcutane pelicans!

10. Flush GI tract via stomach tube unless the bird is extremely depressed, or in shock or seizure. If this is the case, parenteral fluid therapy is indicated (see guidelines).

11. Coat GI tract with Pepto-Bismol (see guidelines).

12. Record all data.

13. Place in appropriate housing to await further treatment or transport.

14. Check appropriate box on Satellite Triage Data Form.

INDWELLING IV CATHETER PLACEMENT

Protective clothing MUST be worn by oiled wildlife handlers!

a. Remove oil from leg.

b. Clean leg with Betadine.

c. Wipe leg with alcohol.

d. Place catheter in leg and cap with injection cap.

e. Heparinize catheter.

f. Use 1/2" tape to "v-wrap" catheter to leg.

g. Place a 1 X 1 sterile gauze pad with antibiotic ointment over the site.

h. Tape the catheter securely in place.

i. Administer fluids.

j. Cover with vet wrap (including cap).

k. Check (✓) box on Satellite Triage Data Form.

OILED ANIMAL MASTER DATA FORM

Band # _____ Prior Band # _____ Spill I-D_____

Species_____ Type of Oil___ _____ USFWS # _____

RETRIEVAL DATA

DATE/TIME RETRIEVED _____ PERSON _____ (initial)

DATE/TIME DELIVERED _____ PERSON _____

RETRIEVAL LOCATION/HABITAT_____

Transport Method_____

CARE BEFORE DELIVERY_____Case # _____

ENTRY MEDICAL EXAM

DATE/TIME_____ EXAMINER_____

WEIGHT _____ TEMPERATURE _____ PULSE _____

Circle appropriate description:

RESPIRATION: Labored, Slow, Open-mouthed, Moist/Gurgling Other: define

EYES: Response to Light/Motion, Inflammation, Ulceration, Nystagmus

MOUTH/NOSE: Pale, Bleeding, Ulcers, Broken Beak/Teeth, Food/Foreign Material, Oil, Discharge

GENERAL BODY CONDITION: Normal, Thin, Emaciated, Dehydrated

NEUROLOGIC: Tremors, Seizures, Alaxia, Paresis, Paralysis

MUSCULO-SKELETAL: Bone/Shell Fracture, Wind Droop, Injury

INTEGUMENT: Feathers - Molt/Loss/Breakage, Cuts, Abrasions, Bruising, Inflammation, Parasites

OILING: HEAVY, LIGHT, Head, Neck, Wings, Back, Breast, Belly, Vent, Legs, Feet, Carapace

OTHER:

TREATMENT ON ENTRY: Pedialyte____ cc, IV/SQ Fluids _____cc LRS, Pepto-Bismol _____cc

Euthanized:

Federal Band # on Release _____ Date_____

Weight on Release_____

If not oiled, transferred to_____ Date_____

MASTER DATA FORM -- SIDE TWO

Band #_____ Species_____

CLEANING INFORMATION

Date_____ Time_____ Team Leader_____

Detergent_____ Number of Tubs_____ Water Temperature_____

Comments:_____

_____

_____

_____

TREATMENT

Examiner_____ Date _____

Weight_____ PCV/TS_____ Rx Evaluation_____

Comments:_____

_____

_____

_____

FINAL EXAMINATION

Evaluator_____ Date_____

Disposition

DOA _____ Transferred for Continued Care To _____

Died _____ Post Mortem_____

Comments:_____

_____

_____

_____

SATELLITE TRIAGE DATA FORM

BAND # _____ S.T. CASE #: ST-_____
SPECIES _____ USFWS # _____

RETRIEVAL DATA

DATE/TIME RETRIEVED _____ PERSON _____
DATE/TIME DELIVERED _____ PERSON _____

RETRIEVAL LOCATION/HABITAT _____
CARE BEFORE DELIVERY _____
TRANSPORT METHOD _____
CLOACAL TEMP _____ PEDIALYTE _____ cc
IV/SQ FLUIDS _____ cc LRS PEPTO-BISMOL _____ cc
INDWELLING CATHETER ( ) TIME _____ A.M. _____ P.M.

Comments: _____

_____

_____

_____

SATELLITE TRIAGE DATA FORM

BAND # _____ S.T. CASE #: ST-_____
SPECIES _____ USFWS # _____

RETRIEVAL DATA

DATE/TIME RETRIEVED _____ PERSON _____
DATE/TIME DELIVERED _____ PERSON _____

RETRIEVAL LOCATION/HABITAT _____
CARE BEFORE DELIVERY _____
TRANSPORT METHOD _____
CLOACAL TEMP _____ PEDIALYTE _____ cc
IV/SQ FLUIDS _____ cc LRS PEPTO-BISMOL _____ cc
INDWELLING CATHETER ( ) TIME _____ A.M. _____ P.M.

Comments: _____

_____

_____

_____

CLEANING

BAND NUMBER _____ SPECIES _____ R-P _____

DATE _____ TIME _____ TEAM LEADER _____

DETERGENT _____ NO. TUBS/CONC. _____ _____ WATER TEMP. _____

RINSE METHOD _____ COMMENTS _____

COURSE OF TREATMENT

WEIGHT	PCV/TS	RX/EVALUATIONS	DATE/PERSON

CLEANING

BAND NUMBER _____ SPECIES _____ R-P _____

DATE _____ TIME _____ TEAM LEADER _____

DETERGENT _____ NO. TUBS/CONC. _____ _____ WATER TEMP. _____

RINSE METHOD _____ COMMENTS _____

COURSE OF TREATMENT

WEIGHT	PCV/TS	RX/EVALUATIONS	DATE/PERSON

FINAL EVALUATION PSRC

(Feather Condition, Body Condition, Weight, General Health)

Species: _____

Band Number: _____

USFWS Number: _____

DATE _____ PERSON _____

DISPOSITION:

RELEASED ___ PLACED ___ EUTHANIZED _____

DIED ___ D.O.A. ___ POST-MORTEM _____

DATE _____ BAND ___ LOCATION _____

FINAL EVALUATION PSRC

(Feather Condition, Body Condition, Weight, General Health)

Species: _____

Band Number: _____

USFWS Number: _____

DATE _____ PERSON _____

DISPOSITION:

RELEASED ___ PLACED ___ EUTHANIZED _____

DIED ___ D.O.A. ___ POST-MORTEM _____

DATE _____ BAND ___ LOCATION _____

DAILY TALLY SHEET

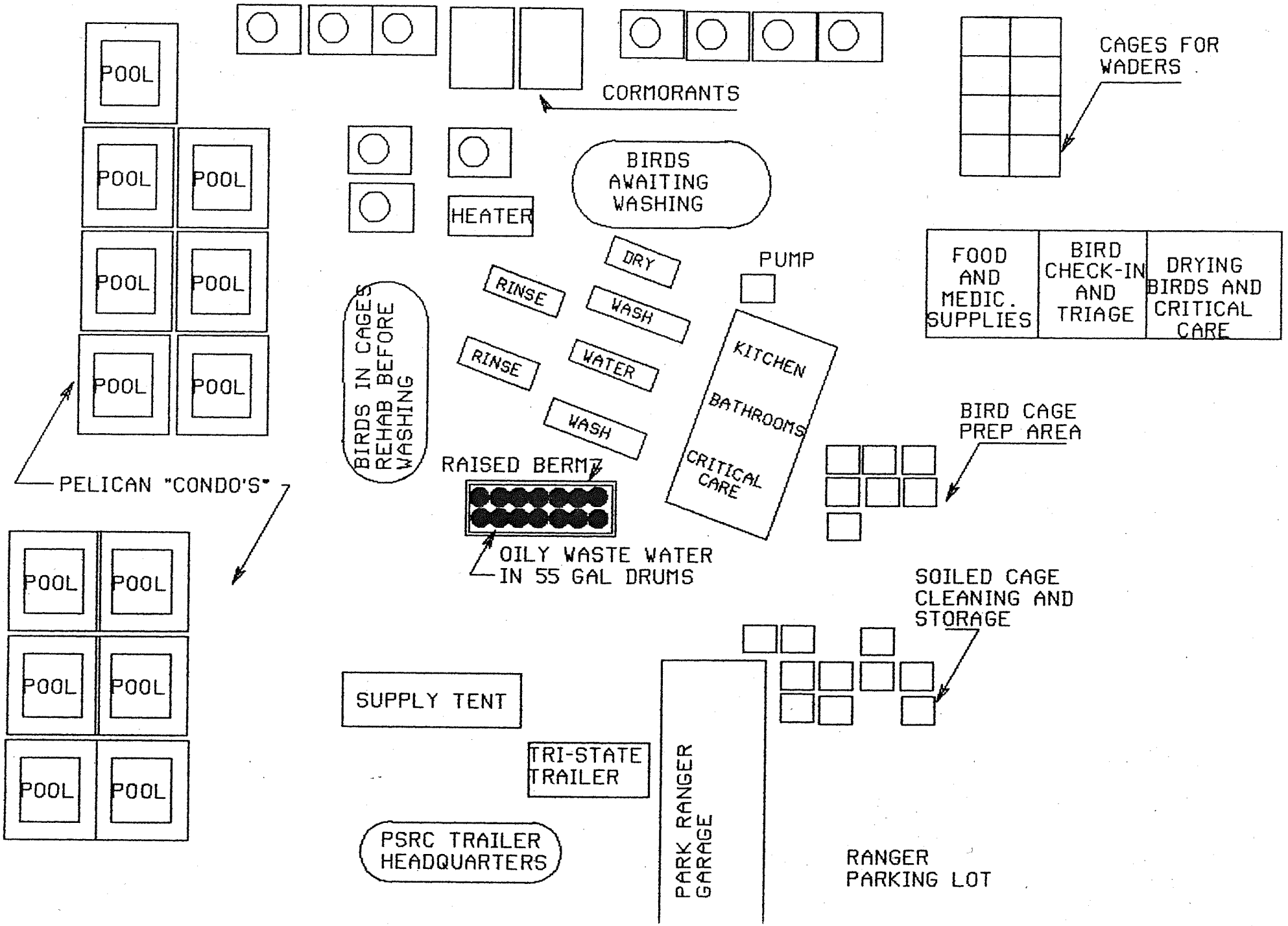
CASE NUMBER	DATE	BAND NUMBER*	SPECIES	COMMENTS* ( ) SATELLITE TRIAGE	FINAL DISPOSITION

* Indicate color and band number (Y-yellow, W-white, B-blue, etc.)

Bird Washing Committee Schedule DATE: _____

SCHEDULE	8:00-1:00	12:00-4:00	3:00-8:00
TEAM I			
Group Leader			
Team Leader			
Bird Holder			
Bird Washer (1)			
Bird Washer (2)			
Assistant			
Water Team			
Support Staff			
TEAM II			
Group Leader			
Team Leader			
Bird Holder			
Bird Washer (1)			
Bird Washer (2)			
Assistant			
Water Team			
Support Staff			
TEAM III			
Group Leader			
Team Leader			
Bird Holder			
Bird Washer (1)			
Bird Washer (2)			
Assistant			
Water Team			
Support Staff			

SAMPLE SITE PLAN



RESOURCES

2.31

Temporary Shelter (CONDOs) for Community Birds

This section details the construction of large bird pens as they were built and subsequently improved during the PSRC wildlife cleanup effort following the oil spill in Tampa Bay August 1993.

Several factors should be considered prior to selecting the exact location of these condos, including:

- Be sure there is adequate access to a source of water as well as drainage facilities. Each condo has a pool containing roughly 1500 gallons of water. When a pen is fully populated with 10 to 15 large birds, water must be changed about every two days. This will require a motor-driven pump and large diameter hoses. Be sure there is adequate access around the pens for this type of equipment.

- Align the first unit in such a way that another cluster of four pens can be built adjoining it, if possible, thereby eliminating the need for one 36-foot wall. During the Tampa experience, the original thought was to have a cluster of four pens (36' x 36'). When all was said and done, we had 13, with each set showing improvements by applying "lessons learned" from the previous cluster.

- Finally, these plans assume fairly level ground and sandy soil into which two-foot deep postholes can be dug, and stakes can be driven fairly easily. Modifications may be made to the structure to accommodate hard ground, although it will be very difficult to install the pools if the ground is not nearly level.

If you have enough people, work can proceed simultaneously on the construction of the pools and the pens. Pools should not be started until the corner posts defining each pen have been located. Conversely, pool basic structures should be finished before the pens are closed in with chicken wire.

A optimum listed of tools is shown in Table 1. Shortages can probably be worked around.

QUANT	ITEM	QUANT	ITEM
2	Boxes galvanized drywall screws, one 2 1/2", one 1 1/4"	2	Hog ring pliers w/ large box of hog rings
2	Shovels	2	Razor knives
3	Tape measures (recommend two 25 foot, one 100 foot)	Misc	Safety equipment, gloves, goggles, strain belts
2	24" levels	2	Post hole diggers
3	Hammers (two claw, one sledge hammer)	2	Stepladders, 6' or lower
2	Electric drills		
2	Heavy-duty staple guns with 9/16" staples		

1. After selecting the location and orientation of the first cluster of bird pens, place a stake in the ground and mark a 36' x 36' square. As shown in **Figure 1**, the area can be accurately squared by measuring the diagonal at 51 feet, or if one corner post has already been set, 50 feet from the inside corner of the post.

Dig holes two feet deep at each corner and place eight-foot 4x4 pressure-treated posts in the ground. Using a level to make sure posts are vertical, pack dirt around all posts.

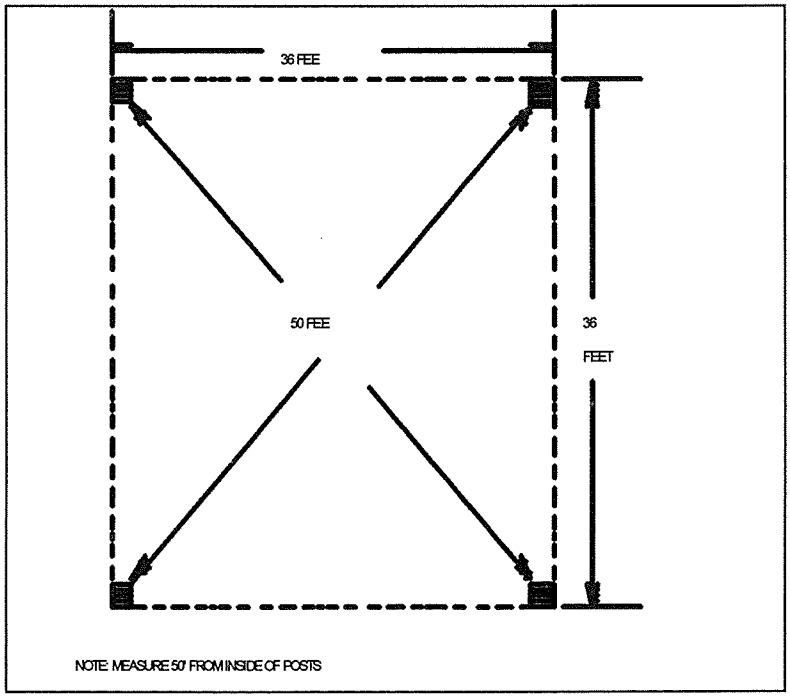


Figure 1 Basic four-pen layout

2. Divide the 36' x 36' square into quarters to form four 18' x 18' squares. Each one of those will form a separate bird pen. It is important at this time to decide where the door to each pen will go. Dig holes and place 8-foot 4x4's on the walls where the doors will be. On the two adjoining walls, dig two-foot holes but place a 10-foot long 4x4 in the same manner as the corner posts. See **Figure 2**.

3. At this point, the construction of the pools should start. See the separate detail on the pools later in this document. After the sides of the pools are basically in place, continue with the process of closing in the pens as outlined in the following steps.

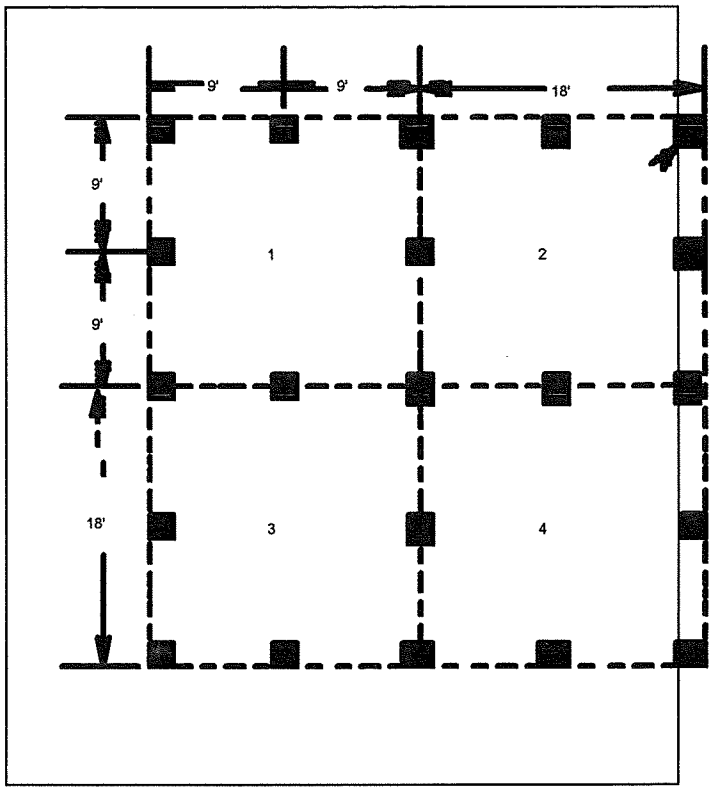


Figure 3 All posts placed

4. Measure and dig two-foot deep holes to place a post between every other set of posts along both outside and inside walls, basically dividing each 18' wall into 9-foot segments. Preferably these should be 4x4's but if there is a shortage of 4x4's they could be 2x4, especially on the side where the doors will go. The pattern of posts should now look like that shown in **Figure 3**.

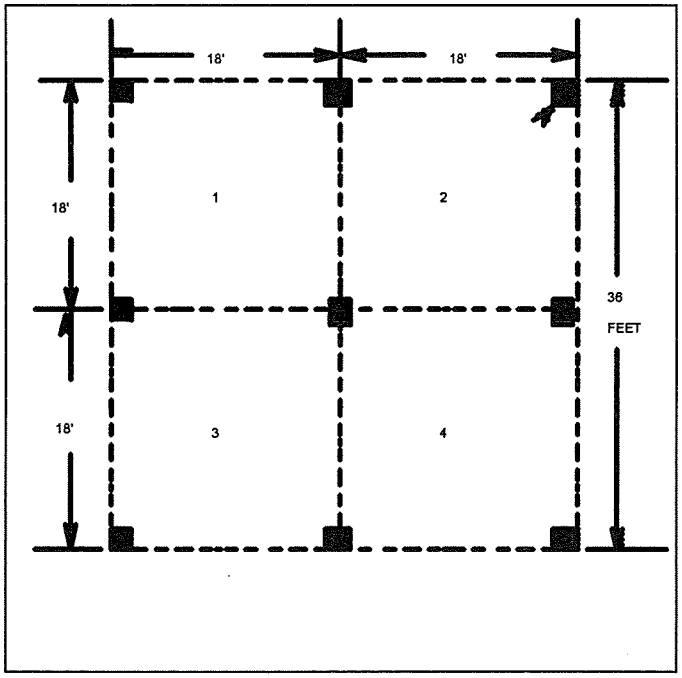


Figure 2 Dividing into 4 pens

5. Now place 2x4's (if possible) along the top of all posts to form fairly strong exterior walls. Use sturdy 1/4" or 3/8" nylon cord to run along the top of the interior walls and fasten to top of 4x4's using hammers and galvanized staples. If chicken wire is to be used for the roof of the structure, then the 2x4's along the top exterior as well as interior walls will be necessary to support the weight.

If lumber is in short supply and/or problems with predators such as raccoons are not expected, then the 2x4's may be eliminated and a strong nylon cord may be run tightly along the top of the exterior and interior walls. This type of construction also implies very lightweight

roofing material such as tennis netting. If nylon rope is to be used along the top of the exterior posts, the four corner posts defining the 36' by 36' area may have to be braced to keep them from bending inward under the pressure of tightening the chicken wire.

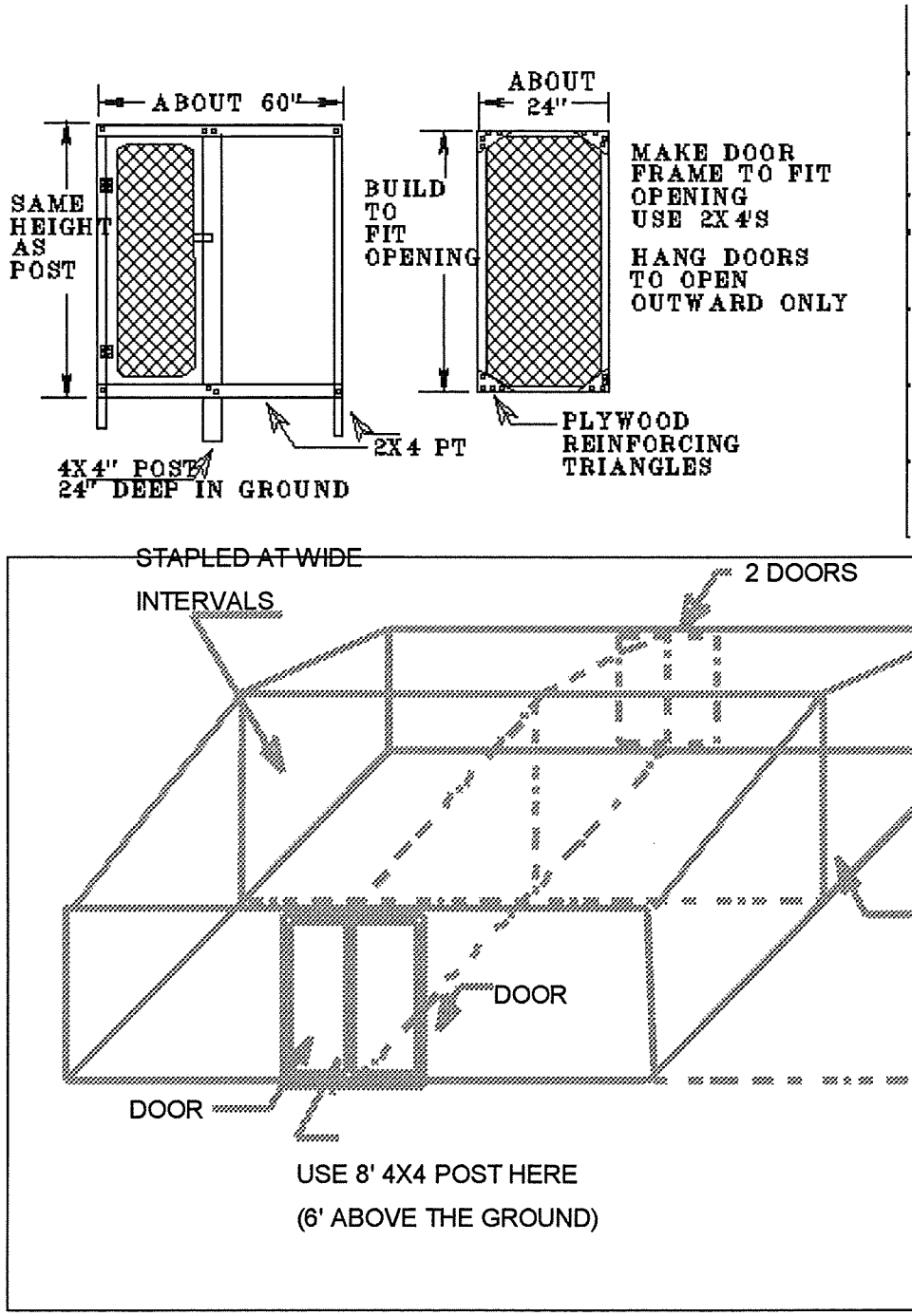


Figure 4 Location of doorways in structure

6. Doorways are made two at a time with 2x4 tops and bottoms. The vertical members ideally are 4"x4", but could be made from 2x4's if necessary. Horizontal members are 60" long, allowing for two 24" doors, sufficient clearance and mounting space for the three vertical members. Of course, the center vertical member the 4x4 post already placed. The height of the doorway should be about 6 foot, to match the height of the condo wall. The construction details of the doorway assembly and the door is shown in **Figure 4**. The location of the doorways relative to the entire structure is shown in **Figure 5**.

7. Next, enclose the structure's outer perimeter. If problems with predators are anticipated – which is the most likely case -- then the chicken wire defining the outside wall perimeter should be imbedded in the ground about one foot. During the PSRC experience in Tampa Bay, just 6" deep was insufficient; raccoons will dig below it. Dig a trench along the exterior perimeter of the pens about one foot deep, as wide as a shovel. Unroll the chicken wire and make a sharp bend about 4 " to 6" from the edge and bend it at a 90-degree angle. See the inset detail at **Figure 6**.

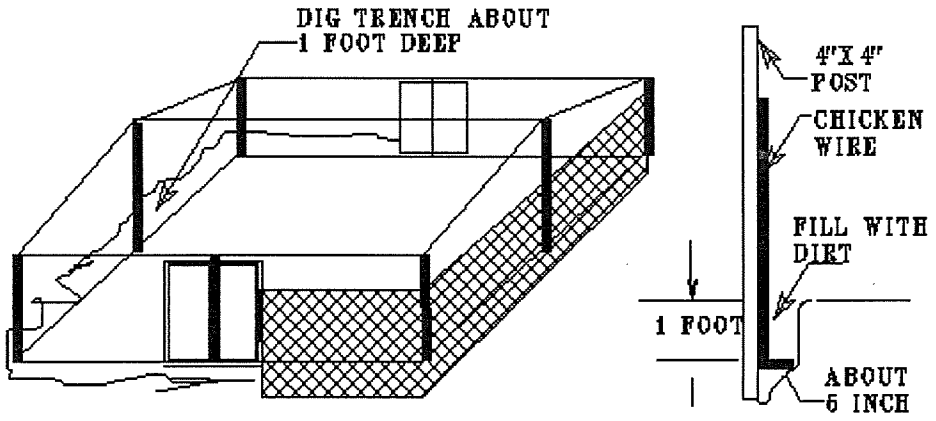
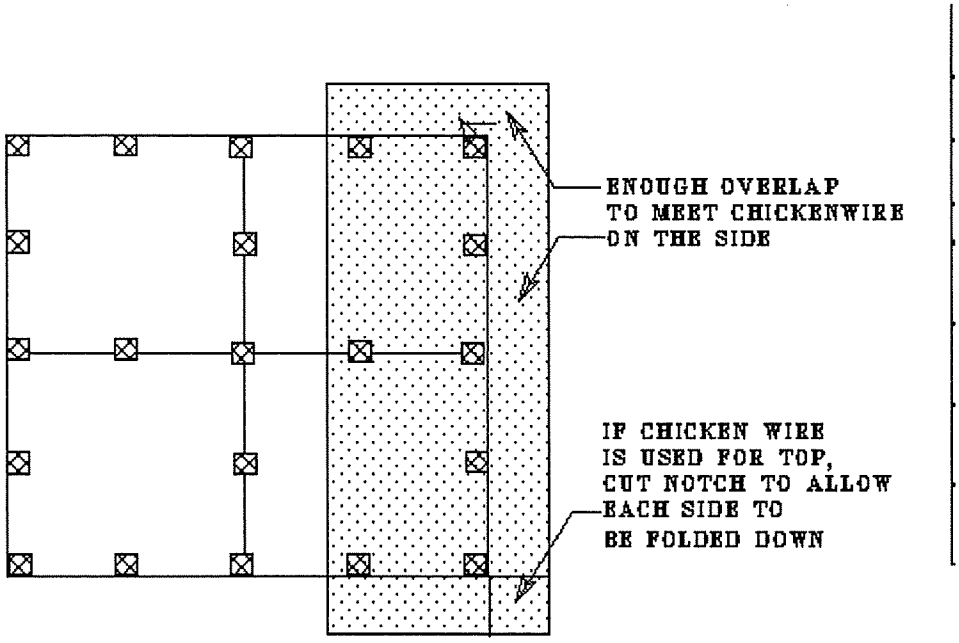


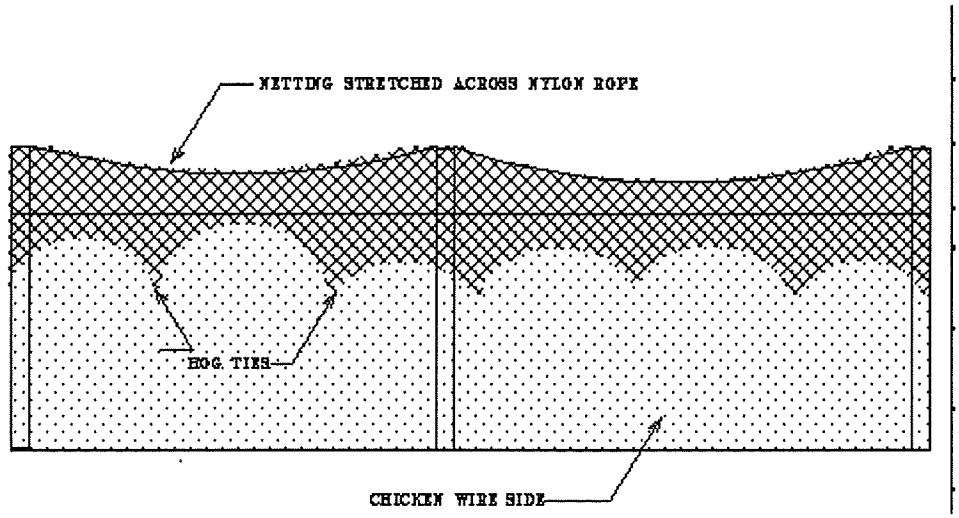
Figure 5

8. Next place netting over the top of the structure and stretch it into position. Cut one strip to be sure there is adequate overlap to secure to the chicken wire sides. Note: The netting will be held in position much easier if a nail is driven in the top of each 2x4 post.



9. Lay the next strip of material along the first one, and with about a 6" to 12" overlap, hog-tie the two pieces together along both of the overlapped edges. This will take a bit of time. Continue with additional layer(s) of netting as necessary; again be sure to provide enough overlap over the edge to meet up with the top of the chicken wire forming the outer perimeter.

10. Finally, hog-tie the netting to the chicken wire all along the outer perimeter, stretching the netting down as far as it will go. Immediately above the doorways, staple the netting to the upper doorway jamb, as well as to all 4x4 posts. A side view of what it will look like is provided in **Figure 8.**

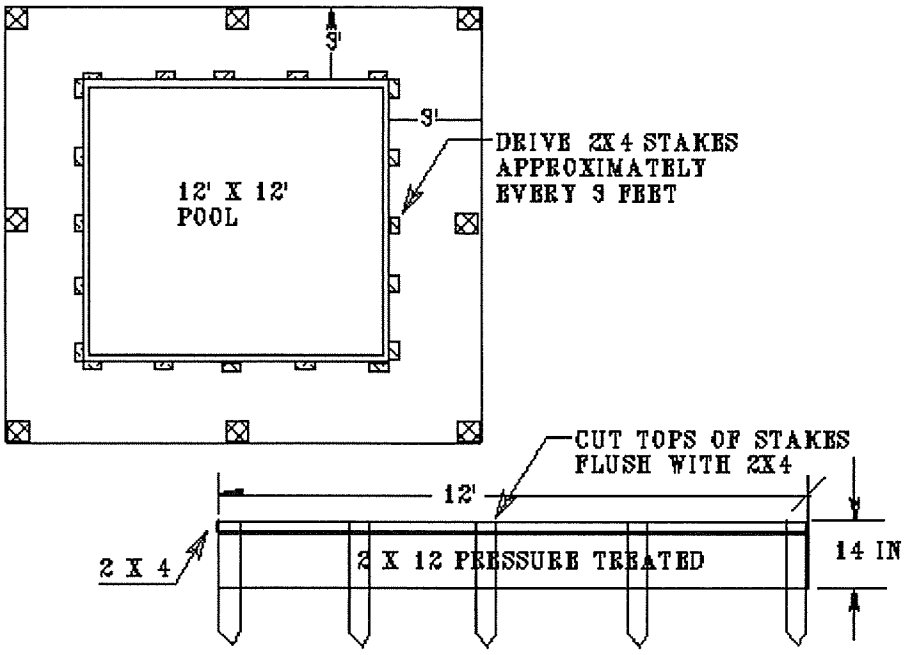


11. If the predator situation dictates the use of chicken wire for roof material as well as sides, then very little stretching is required. Unroll the chicken wire across the 2x4's forming

the roof, again making sure there is enough at each end as well as the sides to connect with the perimeter layer of chicken wire. Try to stretch the material enough to get the kinks out, and cut notches where it is to go around corners. Use 9/16" staples to secure it to the 2x4's along the top, and use hog ties to secure it to the chicken wire along the outside perimeter. No overlap is required for security reasons, although it may be more convenient and less bloody to overlap the chicken wire material than to cut it to match.

12. The interior partitioning of the pens is simple. Use shade cloth or netting of any kind. Nylon rope may have to be tied between interior posts snugly to connect with the bottom layer of partitioning. The interior doesn't need to be predator-proof, since its function is to divide the four pens. Also, when the bird population thins out and rehabilitating birds should fly to strengthen their wings, the interior material should be easily removable so that four square pens can easily be made into two rectangular 36' by 18' pens.

POOL CONSTRUCTION:



As noted earlier, the external structure of pools should be completed before each pen is enclosed. The pools should be centered in the bird pen, as illustrated in **Figure 9.**

The pools are wide and shallow, and should be fairly level. Therefore when setting the sides of the pool, start at the highest side. Be sure to accurately level the two adjoining sides, nailing them to stakes driven into the ground on the "low" side to make sure the whole thing is level. The last side (on the low side) should be mounted to 2x4 stakes at whatever level required.

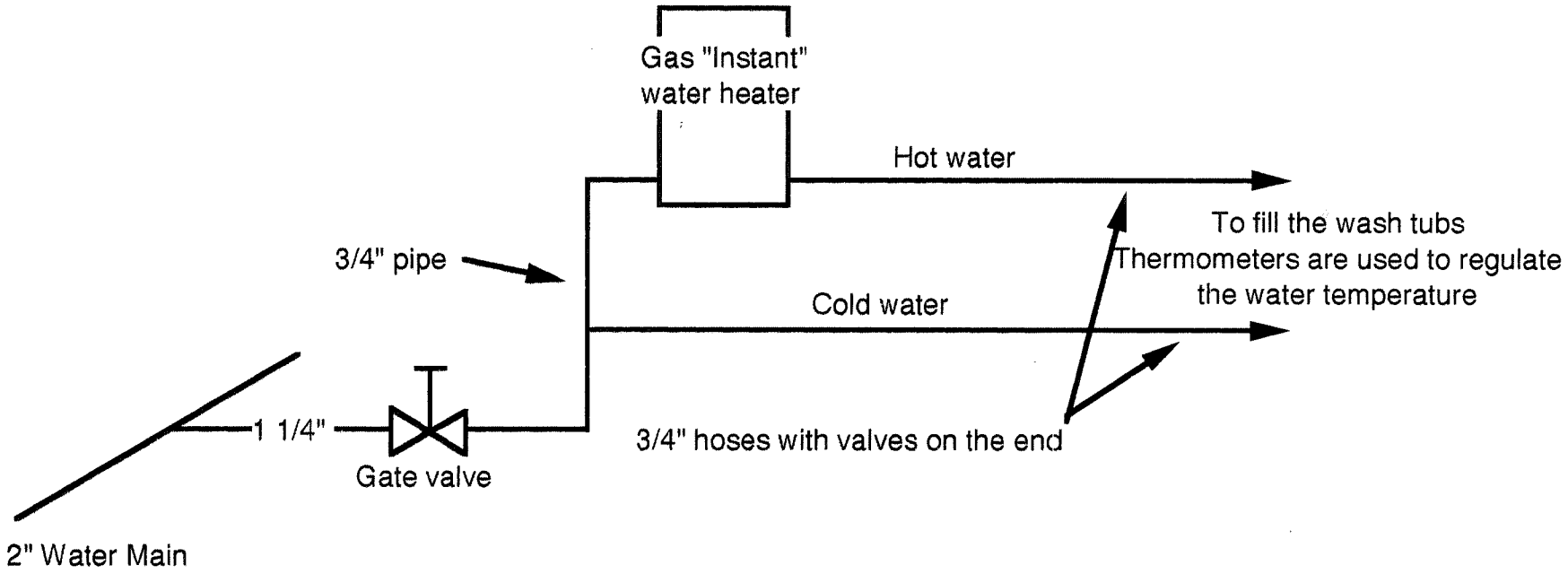
> At shallow grades, the difference can be made up by scooping out dirt from the high area and filling in the low side.
>
> With steeper grades, the high end of the pool could be kept to just the 2x10 board, and the additional 2x4, or maybe even a 2x6, could be installed at the low end, in addition to filling in dirt as described above.

Rake inside the pool area, carefully removing sharp objects which could puncture the tarp. Use some of the dirt to create a soft fill at the bottom edge to reduce the possibility of puncturing the tarp in this area.

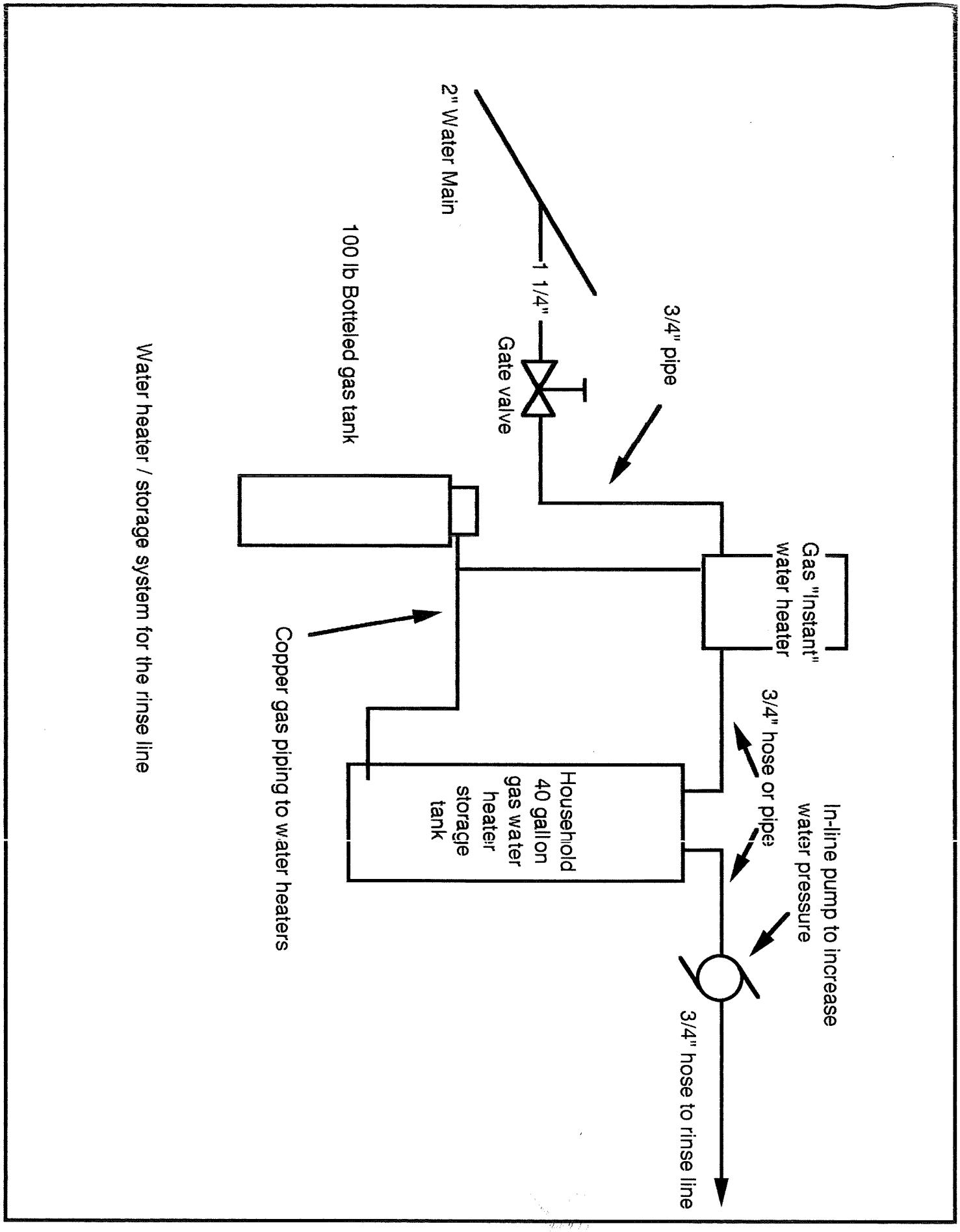
Make an indentation about 2' by 2' by 6" deep in the corner closest to the doorway. This will form a sump when pumping out the pool water.

Now, install two 16' by 16' tarps which are used as pool liners. When filling the pool, try to keep the tarps centered and smooth out any significant wrinkles in the bottom and sides.

Fill the pool with about four to six inches of water, then install the padded top rails with screws along the top edge of the pool. The rails are made from 2x4's wrapped with indoor/outdoor carpet. The top rail secures the tarp in place and gives the birds a place to perch.



Water system used to fill the wash tubs



Water heater / storage system for the rinse line

BIRD SIGHTINGS REPORT FORM	
Date & Time:	Your Name:
Caller Name & Number:	
Birds Sighted - Number and Species:	
Were the birds able to fly?	Degree of Oiling:
Time Last Seen - Location:	
Action taken by you:	Time:

BIRD SIGHTINGS REPORT FORM	
Date & Time:	Your Name:
Caller Name & Number:	
Birds Sighted - Number and Species:	
Were the birds able to fly?	Degree of Oiling:
Time Last Seen - Location:	
Action taken by you:	Time:

BIRD SIGHTINGS REPORT FORM	
Date & Time:	Your Name:
Caller Name & Number:	
Birds Sighted - Number and Species:	
Were the birds able to fly?	Degree of Oiling:
Time Last Seen - Location:	
Action taken by you:	Time:

BIRD SIGHTINGS REPORT FORM	
Date & Time:	Your Name:
Caller Name & Number:	
Birds Sighted - Number and Species:	
Were the birds able to fly?	Degree of Oiling:
Time Last Seen - Location:	
Action taken by you:	Time:

GENERAL SIGNS	
supply tent areas (A,B,C, etc.)	critical care (2)
admissions	no one beyond this point (4-6)
quiet please (4-6)	volunteer sign-in (2)
bird washing area (4)	volunteer sign-out (2)
initial treatment (Triage) (2)	bird washers only (2)
rehabilitation (4)	operations control (2)
volunteer rest area (2)	supply/donation drop off (2)
supply distribution (2)	please wait (2)
exit (6-8)	newspapers (1)
donation station (2)	entrance (2)
no smoking (10+)	rest rooms (men-3, women-3)
no admittance (4)	clean linens (4)
critical care (4)	contaminated materials (2+)
dirty linens (2)	information (1)
break room (2)	clean wildlife (4)
oiled wildlife (4)	medical personnel only (2)
bird drying room (4)	parking (4)
orientation (2)	First Aid for humans (2)
mammals (2)	reptiles (2)

INVENTORY TENT SIGNS	
Medical	Bird Washing
Office	Rehab Supplies
Rescue	General
Construction/ Plumbing/Electrical	

INVENTORY SIGN-OUT

Committee Name	Item	Quantity	Signed out by:

EXPENSE RECORD			DEP Complaint/Case Number:			
DATE	QUANTITY. ORDERED	DESCRIPTION	SOURCE	DATE REC'D	QUANT. REC'D	COST

SUPPLIER LIST

COMPANY/ PRODUCT	PHONE	CONTACT	ALTERNATE CONTACT
MEDICAL SUPPLIES			
Rugby Co.	**800-645-2158**		
Baxter Co.	**800-544-6108**		
Medical Action Inc. Lap Sponges	**800-645-7042**		
Lefeber Co. Emeraide	**800-842-6445**		
FISH/FEED (LOCAL)			

BUILDING SUPPLIES			
The Home Depot			
Scotty's			
J.A. Cisel (Shade Cloth)			
COMMUNICATIONS			
(Local service provider)			
(Cellular provider)			
(Ham Radio Organization)			
MISCELLANEOUS			
Proctor & Gamble Dawn dish detergent	**800-543-7270**	**Jim Rule, David Wasby`**	**Peggy Collins 800-543-0485**
(Hazardous Materials Trainer)			
(Office Supplies)			

DONOR REPORT FORM		
Name:	Phone:	
Company (if applicable):		
Address:		
City, State:	Zip:	
Item Donated:		
Comments:		Date:

DONOR REPORT FORM		
Name:	Phone:	
Company (if applicable):		
Address:		
City, State:	Zip:	
Item Donated:		
Comments:		Date:

DONOR REPORT FORM		
Name:	Phone:	
Company (if applicable):		
Address:		
City, State:	Zip:	
Item Donated:		
Comments:		Date:

DONOR REPORT FORM		
Name:	Phone:	
Company (if applicable):		
Address:		
City, State:	Zip:	
Item Donated:		
Comments:		Date:

HAZARDOUS MATERIAL OVERVIEW

Oil is clearly a hazardous material, not only to birds and wildlife, but to humans. Any volunteer i contact with spilled oil **MUST** wear protective clothing. Protective clothing is particularly important for volunteers cleaning birds and wildlife, which often move erratically and cause oil to splatter on surrounding surfaces and skin.

While OSHA (the Department of Labor's Occupational Safety and Health Administration) does not have jurisdiction over volunteers, the PSRC strictly conforms to its guidelines. Volunteers who have completed OSHA's comprehensive 40-hour training in hazardous material management supervise all activities in which other volunteers may come in contact with oil. Additionally, many other volunteers have completed a four-hour short course in hazmat training.

Material safety data sheets (MSDS) should be posted prominently at all locations, including throughout the main compound, at satellite triage facilities and at docking stations where rescue efforts are underway. An MSDS should be provided by the manufacturer of the spilled oil, and will clearly outline the oil's specific hazards. Different grades of oil present different hazards, as do oil additives. The MSDS will include information on specific protective equipment required fo safety during exposure to these hazardous materials. Some grades of oil, such as benzene which is a proven carcinogen, may require that volunteers wear respirators as well as protective suits, goggles and gloves.

The National Fire Protection Agency's (NFPA) rating code system to identifies hazards (flammability, reactivity, health) associated with the chemical(s) that may be found in spilled oil. The following is a list of the personal protection rating codes to be used based on the MSDS.

1. respiratory protection
2. gloves
3. full face shield, respiratory protection
4. apron, laboratory gown
5. gloves, safety glasses
6. gloves, safety glasses, respiratory protection
7. gloves, laboratory gown
8. light cured safety glasses
9. gloves, safety glasses, apron
10. gloves, safety glasses, respiratory protection, apron or gown

The NFPA rating system also identifies the flammability, reactivity and health hazards of chemicals found on the MSDS. Colors have been assigned to each hazard category: red for flammability, yellow for reactivity and blue for health. Degrees for risk are then assigned to each hazard category. Listed below you will find the definitions for these degrees of risk in their respective categories.

FLAMMABILITY

4 - Dangerous - extremely flammable liquid or gas with flash point below 73°F and boiling point below 100°F.
3 - Warning - flammable. Flash point is below 73°F and boiling point above 100°F.
2 - Caution - flash point is between 100°F to 200°F.
1 - Flash point is at or above 200°F.
0 - Normally stable. Not combustible.

REACTIVITY

4 - Dangerous - can explode at room temperature.
3 - Dangerous - can explode if substance is shocked, heated in confined conditions, or mixed with water.
2 - Warning - unstable. Substance can react if mixed with water.
1 - Caution - can react if heated or mixed with water. Is not a violent reaction.
0 - Stable - does not react with water.

HEALTH

4 - Dangerous - can be fatal on minimal exposure. Need special protective equipment.
3 - Warning - protect skin; do not inhale; corrosive; toxic.
2 - Warning - can be harmful if inhaled or absorbed.
1 - Caution - can be irritating.
0 - Very minimal, no hazard.