

## Immobilization and Euthanasia Drugs Safety Report

# Wildlife Services' Safety Review Chemical Immobilization and Euthanasia of Wildlife

## Final Summary Report

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## Executive Summary

### Review Process

To assess the degree of safety for Wildlife Services' (WS) in the arena of chemical immobilization and euthanasia of wildlife (I&E), we:

1. Identified the major risks associated with the WS I&E program.
2. Reviewed agency policies, directives, and supporting documents.
3. Reviewed training requirements, procedures, materials, tracking, and enforcement.
4. Visited 4 state programs to observe drug storage and handling, record keeping, field activities, and other pertinent issues.
5. Interviewed WS staff, administrators, and I&E committee representatives.
6. Inquired about and investigated I&E-related accidents.

### General Comments

Overall, WS is doing an admirable job of addressing safety risks through their policies, administration, training, field operations, and culture. As we discovered during our state visits, some programs are highly conscientious about safety, while others are significantly less so. It appeared to be an "all or nothing" situation with each state program. Indeed, we expect our findings are reflective of the diversity of attitudes and approaches within the broader agency with respect to safety protocols. Some programs are doing nearly everything correctly and have little room for improvement, but other programs must make significant progress to minimize the risks associated with I&E and create a safe working environment.

In consideration that each program is unique, and that our findings and recommendations must be rectified with the reality in each program, we offer the following analyses and recommendations to increase the level of safety in the WS I&E program.

### **Principle Risks**

1. The greatest risk associated with the WS I&E is accidental and intentional loss or unaccountability of drugs. This can result in risk to the agency, the employees, and especially the public. Addressing this risk includes legally complying with Drug Enforcement Administration (DEA) requirements.
2. The other principal risk is accidental exposure to drugs, which includes direct exposure to field personnel and indirect exposure to the public through consumption of recently drugged animals. Addressing this risk includes legally complying with the Food and Drug Administration (FDA) requirements and providing quality training to develop safe field practices and conscientious attitudes.

### **Priority Recommendations**

Throughout the following review summary, we make a number of recommendations to increase the level of safety in the WS I&E program. However, the following are what we deem the highest priority recommendations for WS, in order of priority, which should be addressed immediately:

1. Conduct unannounced, random, and physical (on-site) inspections of state programs to verify that requirements of drug storage and inventory documentation are met. This will effectively prevent potential drug abuses, sales, or loss and ensure that the legal requirements for DEA are met.
2. Clarify, create, and/or enforce policies regarding: a) veterinary supervision of state I&E programs, b) holding and disposal of empty or expired drug vials, and c) transfer of I&E drugs.
3. Empower an independent entity to track the certification status of employees and evaluate the acceptability of training reported by state directors and other employees to meet certification requirements. This same entity could be responsible for creating and delivering integrated, standardized, and centralized training in the arena of I&E.
4. Create an online clearinghouse of all I&E information pertinent to the WS program, including directives, policies, updates and memos, training curricula, technical information, and other pertinent resources.
5. Increase accountability among administrators, state directors in particular, to ensure safety protocols are followed. This includes accountability for all I&E policies, but in particular issues relating to drug inventories, storage, and documentation, veterinary supervision, and training requirements/certifications.
6. Standardize terminology and format for drug inventory forms. The exact format is less important than that the forms are self-apparent, relatively standardized, and allows for the diversity of individual programs. As a result, we do not recommend a specific format, but recommend the I&E committee create a selection of forms with the input of state directors and others.

## Major Risks Associated with the WS I&E Program

### Loss or Unaccountability of I&E Drugs

The greatest risks associated with the use of I&E drugs are accidental and intentional loss or unaccountability, which can result in risk to the agency, personnel, and especially the public. These risks are minimized by addressing the following:

- 1) DEA Licensing  
DEA licenses for each state program should be issued to the agency and not to individuals. Each state program must be legally complying with all DEA requirements. This includes physical inspection and verification of drug inventories.
- 2) Drug Inventory Documentation  
Documentation should provide an instant understanding of storage, transfer, and distribution of all I&E drugs in the state program. The principle levels of inventory for the WS I&E program include: state program central storage (located at the same address as the DEA license), drug vial use forms (every drug vial is uniquely labeled) and the Controlled Materials Inventory Tracking System/Management Information System (CMITS/MIS). Paper-based inventories should be used in conjunction with CMITS/MIS.
- 3) Storage Security  
Storage of I&E drugs must be secure at all times and only accessible to authorized personnel.
- 4) Transfer  
Loss of I&E drugs is prevented through proper documentation of transfers and through secure means of physical transport.

### Accidental Exposure

The 2<sup>nd</sup> major category of risks associated with the WS I&E program involves accidental human exposure to pharmaceutical agents. Specific risks include:

- 1) Direct Exposure to Employees  
Accidental exposure to employees involves direct exposure through spillage or accidental injection. This is minimized through proper use and availability of personal protective equipment (PPE) and through safe field practices and conscientious attitudes. Quality training is an essential tool.
- 2) Indirect Exposure to the Public  
Indirect exposure to the public does not occur often, but the implications of public exposure and injury are of such great consequence that this should be considered a significant risk. In addition, protection of indirect public exposure to I&E drugs is mandatory for compliance with the Food and Drug Administration requirements.

## Findings, Discussion, and Recommendations

### Policies and Directives

WS should be commended for addressing I&E risks and safety through a specific directive. However, the current directive pertaining to the I&E program, WS Directive 2.340 (06/07/04) “Chemical Immobilization and Euthanizing Agents”, does not adequately identify the requirements for addressing safety aspects as well as the legal responsibilities associated with the WS I&E program.

Communication about I&E directives, policies, updates, and training requirements was inconsistent between the I&E drug committee and state directors’ offices. Some state offices showed us hardcopies of directives with “ADC” letterhead indicating they were not aware if they had the most recent version of a directive or not. This, in turn, contributed to inconsistent and often incorrect communication with field staff and among peers. One suggestion is for Wildlife Services, or a contractor, to create a website, as described below, with directives, policies, updates and memos, training curricula, technical information, and other pertinent resources.

### Policy Recommendations:

- 1) WS should create policy or a revised WS Directive 2.340 to: 1) specifically identify the requirement for each state program to have veterinary supervision as required by FDA., 2) incorporate some form of accountability for meeting training requirements, and 3) revise I&E committee responsibilities which may be influenced by our safety recommendations relating to training.
- 2) WS Directive 2.340, Attachment 1. “WS Immobilization and Euthanasia Training Requirements”  
This attachment should be updated to include the WS on-line as part of the certification program. Also some approved drugs, such as alpha-chloralose and propiopromazine have their own certification program and should be separated from the other I&E training requirements.
- 3) WS Directive 2.340, Attachment 2. “WS Approved I&E Agents”  
The list should be rewritten to clearly identify which approved drugs are controlled substances.

### Safety Program Administration

We discovered that administrative support, office space and facilities, and infrastructure necessary for a safe I&E program were occasionally lacking in state programs, particularly in those with new hires and remote field locations. This compromises some state programs’ ability to properly address several important safety factors.

### Addressing legal requirements - DEA

1. *Name of license holder.* All state programs with an I&E program had a DEA license. Most states had a DEA license issued to either the state director or to the WS employee coordinating the state I&E program, with WS also being identified on the license. One employee had a DEA license in his personal name without the agency identified, which raises concerns. Although we did not discover evidence that this poses a safety risk, it is atypical and possibly inappropriate to have a DEA license issued to a private individual.

Misuse or loss is one of the highest risks associated with I&E use in the workplace. This is primarily related to drug abuse, sale, and risks to the public. Having employees personally holding DEA licenses perhaps exacerbates this risk.

2. *Physical inspection of drug inventories.* Please note that we did not conduct an actual inspection to verify drug inventories. Inspection and verification is the most important measure to legally address DEA requirements and to create accountability to prevent actual or intentional loss of drugs. Our recommendation is consistent with those from a 2004 WS audit of the Inspector General (USDA, 2004). We recommend that each state program direct district supervisors to conduct an annual physical inventory and reconciliation with I&E authorized personnel; that state office personnel periodically conduct a physical inventory and reconciliation for the district supervisors; and that inspectors are independent of the storage areas they are inspecting. In our visits to four states, there was no discussion or suggestions that any inspections have occurred.

#### Addressing Legal Requirements-FDA

In addition to DEA requirements, FDA requirements must be addressed (Chapter 2 in WS Training Manual, 2001). FDA requirements exist to ensure that the public is not exposed through consumption of animals after the animals are drugged and released.

One of the most important aspects for legally addressing FDA is the requirement that all I&E drugs only be used under veterinary supervision. Some states do not have an arrangement with any veterinarian to provide oversight/guidance for their I&E program/drug usage. Other states had a verbal agreement with a WS administrator who is also a veterinarian, but we question whether this is adequate for addressing FDA requirements. One reason for our skepticism of these arrangements is that such informal agreements may not adequately define and outline the veterinarian/client/partner relationship as required by FDA guidelines. As evidence of this, most WS personnel we visited did not have a clear understanding of neither their nor their veterinarian's roles and responsibilities for their I&E program. Furthermore, we doubt whether anyone in WS has been given the official responsibility to serve as a supervising veterinary for WS state programs. We learned during the review process of only one state that had a written agreement with a local veterinarian to address FDA requirements and to contribute to a high quality of safety and professionalism.

One reference valuable for addressing both DEA and FDA legal requirements is National Park Service's director's order #77-4: Use Of Pharmaceuticals For Wildlife located on the web at: <http://www.nps.gov/policy/DOrders/DO77-4--14-day.htm>

#### Administrative Recommendations:

1. Conduct unannounced, random, and physical (on-site) inspections of state programs to verify that requirements of drug storage and inventory documentation are met. This will effectively prevent potential drug abuses, sales, or loss and ensure that the legal requirements for DEA are met.
2. Require that DEA licenses for WS programs be issued to employees identified as Wildlife Services' employees, not as personal agents.
3. Establish a policy or revised WS directive to: a) define the doctor-client-patient relationship between a WS state program and a supervising/consulting veterinarian, b) describe who is

eligible to provide the veterinary supervision/consultation, and c) identify how the relationship is documented.

4. Increase accountability among administrators, state directors in particular, to ensure safety protocols are followed. This includes accountability for all I&E policies, but in particular issues relating to drug inventories, storage, and documentation, veterinary supervision, and training requirements/certifications.

## **Training**

### Training Manual

The field and training manual appears to be a valuable tool utilized by both administrators and field staff, but it is outdated and should be refined and revised for the next printing. Moreover, the manual should be available primarily online, so that future revisions can be made immediately as the need arises.

The training manual is too vague in defining certification requirements. For example, on page 12 WS-Approved I&E Drugs are listed and on page 19 "Other I&E drugs" (Alpha-chloralose and propiopromazine) are listed. Certification requirements in the manual were intended for the first list of approved drugs and separate training is available and required for alpha-chloralose and propiopromazine. This clarification is not evident in the manual and administrators have applied this separate training toward certification. Other discrepancies in the manual will likely exist.

### On-line Course

The online course could become a valuable component for certification. First, WS should better define what role it plays in meeting training requirements. Second, employees must be aware that it is available. Many employees we met were not aware of the online course. Third, it should be much more available to employees. Because many WS employees lack reliable high-speed internet connections, the value of the course is limited to them (because of the videos and other multimedia, a high-speed internet connection essentially is required to access the online course). WS should investigate alternate means of delivering the course via distance education such as by DVD.

When the manual was first written (2001), WS did not have an online training/testing course. Since the creation of the online training (2003), the testing alternative for recertification was approved and it is now one of the approved methods. The manual has not been reprinted since the original version, so this alternative is not in the printed version. Also, there is no definition of how much the online course meets the requirements of certification. Currently, passing the test every 5 years is an alternative for 20 hours of CE. Although this can save state directors a lot of expense, we question the wisdom of this policy and feels it does not provide the quality of training necessary to build a safe and professional culture.

Some have suggested that the online course be required in addition to live workshops, and we feel this has merit. In particular, requiring that students complete the online course prior to attending a live workshop will both familiarize students with WS-specific protocols as well as equip them to learn more in the live workshop.

### Documentation of Training

Currently there is no standardized format for documenting and reporting completed training. We recommend that a standardized format for reporting initial certification training or recertification/continuing education events be developed. One option would be to get examples from state directors to learn what works best for them. The information should provide details about: date, location, instructor, location, and hours of training. Most of the records we inspected showed few or none of these details. Not only did this lead to the confusion for the chair of the I&E committee responsible for giving approval, the confusion led to significant frustration of all parties and a breakdown in morale and collaborations.

### Evaluating Training Requirements

It was very difficult for the chairperson of the I&E committee to evaluate and make decisions about the acceptability of reported trainings. Adopting a standard format to report trainings will help this process immensely. In addition, though, the current structure and role of the I&E committee is problematic. Currently, the I&E committee is chaired by a state director and, regardless of which state director occupies the role, this is difficult. First, state directors have limited time, and the evaluation and tracking of individual training events is time consuming. Second, it places the state director, as chair of the committee, in the difficult position of both striving to develop and enforce high standards of training and certification for WS and striving to maintain good working relations with other state directors and their employees. As a result, past decisions regarding the acceptability of various trainings disrupted morale and the effectiveness and motivation for the certification system.

### Tracking Continuing Education and Certification

In addition to evaluating training requirements, it was difficult for the chairperson of the I&E drug committee to track records for certification. Tracking should be able to follow WS employees when they change WS jobs and move to another state. We recommend there be a central record keeping entity for all I&E. Ideally, a database should exist that allows instantaneous determination of all WS employees' I&E certification status, including the date and method of initial certification and recertification, date that recertification must be achieved, and scores on certification tests.

### Quality of Instruction

Obviously there is a challenge in finding courses taught by qualified instructors that are affordable, available, and pertinent to WS needs. It is also difficult logistically and economically for state directors to hold state meetings every year. Even when meetings are held, there is not time enough to provide training to address all of the employees needs.

“Train the trainer” approaches do not provide the quality of training important for developing strong knowledge and a developing professional culture. Although WS employees with particular interest and knowledge in I&E can add substantially to the safety performance of a program through supplemental training, guidance, mentorship, and other support, this should not replace continuing education provided by professionals with specific I&E expertise. Along these same lines, when state directors create opportunities for employees to work in teams, and better yet, change partners in those teams, the professional quality and safety culture can quickly rise. When employees work in teams, there is a sharing of ideas and comparisons of techniques and

equipment. Although it is often difficult financially and logistically for employees to work in teams of two, state directors should not accept employees working alone without first exploring possibilities to create field partnerships. This is particularly important for employees who are new hires or are otherwise inexperienced with I&E protocols.

#### Wildlife Services' Training Academy

There has been discussion about developing a training academy for Wildlife Services. This is an excellent idea to strengthen training opportunities and availability to meet needs beyond that of just I&E drugs. The academy could provide integrated, standardized, and centralized training in I&E and other important arenas. In addition, the academy could facilitate activities like:

- 1) Identification and development of instructors who understand and promote WS policies, values, and mission.
- 2) Compilation and tracking of employee training records and notify employees and directors of certification deadlines.
- 3) Integration of the online course into the larger training program.
- 4) Provide a means for evaluation of training reported by state directors and other employees to meet certification requirements. Because of some of the conflicts inherent with a state director or other WS employee conducting these determinations, we recommend that an independent office conducts these determinations.

#### Blue Card

Blue cards are granted to employees who achieve I&E certification. Although the cards were designed strictly as an internal WS document, they also have been suggested as a means for employees to demonstrate their certification to other wildlife professionals, law enforcement officials, and the public. Despite these good intentions, the blue card does not appear to serve any practical service. Several employees stated that they are never asked to show them and personnel from other agencies are not aware of the blue card and are not likely concerned about seeing proof. The blue card only causes confusion, which hampers attention to more important issues like safety protocols.

#### WS Employee Website

We observed a lack of communication and sharing of resources among state programs, administrators, field employees, and subject-matter experts. The current USDA website is cumbersome, does not provide the practical resources specific for WS, and is not dynamic and interactive enough. To improve this, we propose a WS I&E clearinghouse be developed in which employees can:

- 1) Visit the site a 2-4 times per year, verified by a username and password, to read updates on directives, policies, etc.
- 2) Obtain resources such as downloadable examples of I&E inventory forms and forms/resources for addressing other aspects in their work. A Wildlife Services website which could contain a variety of approved forms that state directors and field staff could use. If the state director or staff has a form which they feel is even better, they could submit it to the website host, and it could be added to the list.
- 3) Enroll in and participate in the on-line I&E course
- 4) Report training sessions using a standardized format
- 5) Obtain information on their certification status

- 6) Have access to a blog to ask work-related questions to experts within the agency

#### Internet Access

Many WS employees do not have high-speed internet access. This should seriously be addressed; as WS programs become more complex and training requirements become more important, online access for all employees will become more important. Employees currently with dial-up or no internet access should still be required to access the online course and, until high-speed connections are available for all employees, creative solutions should be developed for them. For example, employees could be encouraged to utilize internet access at the local library. Another creative approach would be to create internet access shared by other federal employees.

#### Training Recommendations:

1. Create an online clearinghouse of all I&E information pertinent to the WS program, including directives, policies, updates and memos, training curricula, technical information, and other pertinent resources.
2. Create or partner with an independent entity to a) evaluate the acceptability of training that is reported by employees and/or state directors and b) track employee training and certification.
3. Update the WS Field Manual as suggested.
4. Clarify the role of the online course toward meeting training requirements.
5. Standardize the format for reporting training events and opportunities, using input from state directors to determine the final form and function of this system.
6. Discontinue use of the blue card.
7. Improve internet access availability and quality for all WS employees.

#### **Field Operations**

Personal protective equipment (PPE) is essential for preventing accidental exposure. This is primarily latex gloves, protective eyewear, and a non-cluttered working area (a tail gate can be adequate for some wildlife species) with a covering to contain spills. In general, PPE was properly available to employees as state directors were very good with providing their field personnel with any equipment necessary for safe handling of I&E drugs. In all but one state we visited, the state director was very attentive to how well the employees utilized the PPE.

Employees associated with the Oral Rabies Vaccine (ORV) program usually covered their tail gate with a disposable surgical drape before handling the drugs and working the animal. Another precaution taken by several states working with the ORV program was the use of leather gloves under latex gloves to prevent accidental injections as well as bites or punctures from the traps. This kind of professionalism and attention-to-detail is commendable and should serve as a model for the larger WS I&E program.

#### Skills and Ability to use PPE

The most important way to prevent accidental exposure is using PPE in conjunction with good field techniques. It is especially important to attend to wearing gloves and to having a safe approach to recapping needles. For the latter, a knowledge and comfort with needles and syringes is essential as well as respect for their potential to cause harm.

Instruction and guidance should be provided about options for recapping needles. Two options should be recommended: 1) not recapping needles and immediately placing in a sharps container after use; and 2) recapping using the 3-step method: a) Touch hands together in some way, b) touch cap to needle at a perpendicular angle, c) slide it on. Making it mandatory to not recap needles can interfere with the “rhythm” and work patterns of some field employees. Policy or requirements for this safety aspect is not as important as building a conscientious attitude about safely working with needles and syringes. Promoting both options provides flexibility in the field while strengthening the safety culture through discussion and attention to detail.

#### Field Disposal Of Sharps

Most field personal and those working in labs properly disposed of needles and other sharp materials in bio-hazard containers. Some, however, did not have proper disposal equipment and were still looking for practical sharps containers that would fit in their field kits.

#### Proper Disposal Of Empty Or Expired Drug Vials And “Sharps” Materials

Every state we visited had confusion about how long to store empty drug vials and how to dispose of empty or expired drugs. WS should develop a policy for this describing what to do with expired or empty drug vials, how long to keep them, how to safely dispose, proper documentation, and how to use “reverse distributors” (companies that accept expired drugs). Policy is also needed for disposal of sharps and general biohazard waste.

#### Risks with Loss or Unaccountability of Drugs

The greatest safety risk is loss or unaccountability of controlled substances (i.e. ketamine, Telazol, and euthanizing agents) resulting in their abuse or illegal sale. This results in risk to the agency, personnel, and especially the public. As in any agency or organization such as a veterinary clinic, there is significant potential for employee drug abuse or sales. One vial of ketamine costs less than \$10 and is easily sold for over \$400 on the street. Here is one of many websites about the potential for ketamine abuse:

<http://www.newdirectionsprogram.com/special%20k.html>

#### Drug Inventory Documentation

Proper inventory documentation is the second most important measure (the most important measure is physical inspection and verification of drug inventories, which we addressed in the Safety Program Administration section above) to legally address DEA requirements and to create accountability to prevent actual or intentional loss of drugs. Therefore, it was a significant focus of our review.

Our review demonstrated that state programs appeared to have very good records documenting what drugs were in their central supply, what drugs were transferred to the field staff, and how the drugs had been used. Every state was also conscientious about labeling every drug vial with a unique number and had a tracking record (i.e. drug vial use form) for each vial describing how the drug was used: date, volume, purpose, and initials. Note, however, that we did not conduct an actual inspection to verify the inventories. Please see Safety Program Administration for more information about drug security.

Unfortunately, every state had different inventory forms/tracking records making it very difficult to conduct an actual inspection of the drug inventory. Every state also had its own “drug vial use form”. Some headings for these forms did not even describe the purpose of the form. Was a “tracking record” tracking the main drug inventory, drug vial use, or chain of custody? As one example, the “tracking record” was a drug vial use form. Terminology for the headings of basic inventory forms should be standardized for all states.

Any and every form used by WS to document drug inventories must be self evident and organized enough to facilitate inspections; in many cases, we discovered recordkeeping that failed to meet this litmus test. To some extent, the actual forms themselves should be standardized across the agency. However, we recognize that one standard form for every level of inventory is not conducive to diverse state and field operations, but standardization should be considered the first and best option. A drug vial use form, for example, could be a standardized form for all states without compromising their system or method of book keeping. For documenting the principal drug supply, state programs could be given 3 or 4 examples of central supply forms which are user friendly and provide some flexibility for the structure particular program as long as it gathers the necessary information for CMITS and MIS and meets DEA and state legal requirements. The Inventor/Usage example form in the training/field manual (p. 77) is difficult to interpret and not user-friendly for most state directors.

The CMITS and MIS databases appear to effectively provide a consistent method of inventory and use of I&E drugs for all states. Such a universal format is valuable for documenting the volumes, extent, and distribution of I&E drug use in Wildlife Services. Employees described CMITS as inflexible and duplicated MIS documentation. Most states used their own customized forms to quickly review what was in their safe or in the field. Also CMITS and MIS are not compatible with the ORV rabies documentation, which increased the burden of data entry. If employees start using in-the-field laptops or handheld computers, we strongly encourage WS to re-write the software for CMITS and MIS and combining them into one. WS should also continue to use CMITS in conjunction with a paper-based inventory system.

#### Transfer of drugs

Transfer of I&E drugs from the director’s office to field staff has significant potential for loss or unaccountability. In most cases, documentation of “chain of custody” was complete and accurate. However, discussion with employees suggested that some controlled substances were being mailed through the U.S. postal service, which should be discouraged unless proper conditions are in place to provide tracking. An agency policy for transfer or distribution of controlled substances is recommended.

#### Drug Storage Security

Improper storage of I&E drugs in the office and in the field can result in theft or other loss. In most cases, storage security was excellent. Some state directors provided storage containers such as a safe or lockable box designed for firearms. The latter could be permanently attached in a hidden area of the vehicle.

Occasionally storage security was lacking. One field office we visited was connected to a county animal shelter office with an open connecting door allowing access by people from the adjacent

office. The (locked) field kit was kept in the open on the floor and easily allowed for non-authorized personnel to enter the office and remove the field kit. A safe in the office, or a closed locked door, would have prevented access to the I&E drugs. District supervisors should know the location of every field kit and how it is stored both in the respective field office and in the vehicle.

#### Field Operations Recommendations

1. Standardize terminology and format for drug inventory forms. The exact format is less important than having the forms self-apparent, relatively standardized, and allow for the diversity of individual programs. As a result, we do not recommend a specific format, but recommend that the I&E committee create a small selection of forms with the input of state directors and others.
2. Create a flexible policy or informative memo on recapping needles that recognizes the acceptability of diverse field practices but emphasizes safe protocols.
3. Provide state programs with ideas or suggestions on products practical and effective as “sharps containers” in the field. This could be provided on the employee website.
4. Create a policy or memo on transporting I&E drugs when transferring to and from field staff.

#### **Accidents, Injuries, and Illness**

The review team attempted to address past accidents, injuries, and illness by:

1. Obtaining an agency-wide list of all reported accidents, which was largely too vague to identify I&E-specific accidents.
2. Interviewing WS personnel.
3. Reviewing list of reports and incidents from each director we visited.
4. Requesting from all WS state directors, via email, a detailing of I&E accidents

During our review process there were one or two anecdotal stories of an employee accidentally exposed to immobilizing drugs, but these stories could not be tracked down to confirm or gather details. It was extremely difficult obtaining records on past accidents, injuries, and illnesses. This is both due to a lack of a system for reporting and documenting and due to legal requirements for privacy protection. As a result, we recommend WS create a separate accident reporting and tracking system for activities classified as “high risk”, such as I&E, so long-term trends can be compared with changing policies and practices to increase the level of safety over time.

In every anecdotal accident reported to us, the accident could have been prevented by proper training, equipment, and/or field techniques, as we have already discussed in previous sections.

#### Accident Recommendations

1. Creation of a separate accident reporting and tracking system for activities classified as “high risk”, such as I&E, so long-term trends can be easily monitored and compared with changing policies and practices to increase the level of safety over time.

#### **Wildlife Service’s Culture and Attitudes toward Safety**

The cultures and attitudes towards safety appeared to essentially be an “all or nothing” situation. Most states demonstrate very professional and conscientious attitudes with excellent attention to

details for human safety. This was supported by conscientious and detail-oriented state directors who either addressed the details themselves or gathered employees on his/her team who were also conscientious and detailed. In the states where there was less attention to detail, we observed that all WS personnel sincerely strived to do the best they could, but the general working culture and lack of information/training/discussion did not support proper safety protocols. In addition, we received anecdotal reports from current and past WS employees that some programs and administrators instructed employees to conduct I&E work without allowing them to receive the training necessary for certification.

For some states, the financial and logistical structure of the state organization leads to poor communications between state director and employees. Large states obviously have challenges for ensuring that district supervisors spend adequate time with each of their field employees. Also for some states, annual state meetings could not be held due to economics, travel logistics, and work demands. This can also weaken the culture of the state program.

We also observed that if funding sources were primarily local, some WS field staff felt a stronger allegiance and relationship with the local cooperators than with WS. This creates a culture where “getting the job done” supersedes issues of professionalism, ethics, and, most relevantly, safety. This also compromises the state directors’ ability to guide and direct field employees. Although we sympathize and agree with the need for programs and personnel to meet the expectations of cooperators, this must not dilute the importance of safety, professionalism, and attention to detail. Indeed, WS should endeavor to create a culture where safety protocols are viewed as part-and-parcel of successful projects.

Most states contained teams of employees who respected and promoted education and knowledge. In some states, there was also an obvious culture against education as we heard employees teased that they had a college education. These attitudes were not generally mixed within a state, but rather either distinct or absent within each respective state. These attitudes, where education and professionalism are perceived as being negative, are detrimental to good safety.

#### Culture Recommendations

1. Ensure high quality training opportunities are available to all appropriate employees.
2. Create opportunities for isolated employees to work with others, either within the state or in an exchange program with other states.
3. Explore how to strengthen the culture (which already exists in many WS state programs) which acknowledges the importance of education, sharing of ideas among employees, and a conscientious attention to detail.
4. Explore the impact of how localized financial resources, responsibilities, and culture impact the function, communication, and structure within some state programs. WS employees can be professional, educated, and detail-oriented and still blend with local communities.

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