

COUNTY
WEED SUPERINTENDENT'S
HANDBOOK

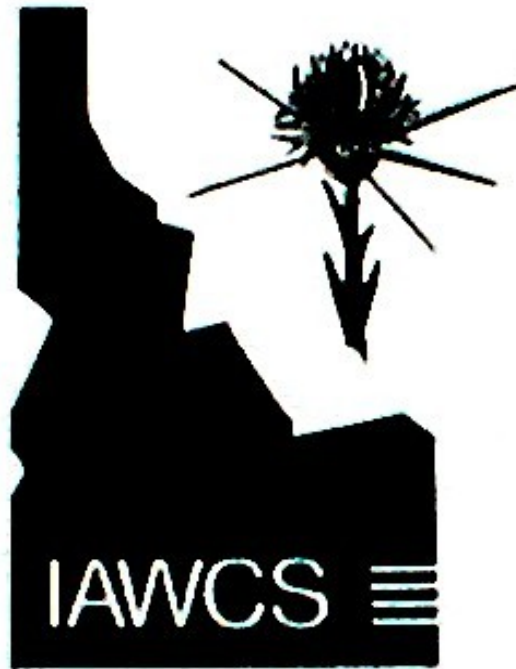


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1) INTRODUCTION

In 1981, the Idaho Legislature amended the Idaho Noxious Weed Law to place the primary responsibility of noxious weed control on County government. While the Director of the Idaho State Department of Agriculture is the highest authority, the County is given the task of exercising the general provisions of the Weed Law. By statute, the County Commissioners are designated, on a local level, as the “control authority”, and are required to employ a County Weed Superintendent (CWS) to carry out the duties and responsibilities assigned. This handbook serves as a general guideline to assist County Weed Superintendents as they carry out day-to-day operations of managing a successful weed program, as well as serves as a resource for County Commissioners, state and federal representatives, the public, and other interested parties.

•**IAWCS** (Idaho Association of Weed Control Superintendents) is a network of professional people consisting of Idaho’s County Weed Superintendents. Our **MISSION STATEMENT** is *Empowering our professional county weed superintendents with the best available resources to enhance statewide collaboration for invasive plant management.* The Association is a non-profit organization, and participation is voluntary. Until the establishment of IAWCS in 1982, there was no organization in Idaho that served the specific educational, professional development, and networking needs of CWS. IAWCS has worked to promote cooperation, exchange information, and provide education and resources to further success in noxious and invasive weed management in Idaho. Precise job-related training and hands-on activity are the primary focus, and serve as the main purpose of the organization.

By means of information exchange, the group brings about dialog on specific weed-related issues that directly affect existing programs. IAWCS recognizes the need to establish and maintain a direct connection with the Idaho State Department of Agriculture (ISDA) and the University of Idaho. Through the years, this organization has maintained involvement by including ISDA’s Noxious Weed Coordinator and other staff to attend all IAWCS functions. While County Weed Superintendents are employed to administer their County weed program, they serve as ambassadors for their County Commissioners, as well as act as a liaison for individuals and agencies with a connection to their specific County program.

New requirements, updates, and legislative changes are common and pose impacts to Idaho Counties. Diligent communication between County Weed Superintendents, County Commissioners, and ISDA is essential. It also assists in constructing continuity and uniformity in weed programs statewide. State, federal, and private landowners also play an important role in which communication is a necessity. IAWCS maintains involvement in issues that directly affect local on-the-ground weed control efforts. Views and/or positions taken by IAWCS reflect the majority of the membership by vote, while respect is given to those with differing opinions.

The IAWCS hosts two annual membership meetings a year: one in conjunction with the Idaho Weed Conference in February, and the other at a summer meeting in mid-July. Officers include a Chair, Vice-Chair, and Secretary/Treasurer. Every two years, Executive Board members are reassigned, consisting of one representative and one alternate from each of the six regions in the State. They meet four times annually; two of which coincide with the winter and summer

general membership meetings. It is the responsibility of each Executive Board member to work closely with each superintendent in his or her region.

Special thanks to the membership of the Idaho Association of Weed Control Superintendents, University of Idaho, and the Idaho State Department of Agriculture for their reference information and contribution to this handbook.

2) COUNTY OFFICIALS AND THEIR ROLES

2.1 County Commissioners

A three-member Board of County Commissioners is the governing body in each County, and is designated by Idaho Code as the “Control Authority”. The Commissioners must carry out the duties and responsibilities vested in them under Idaho State Law. They are responsible for the establishment of a coordinated program for the control and eradication of noxious weeds within their County. The Board of County Commissioners is the Weed Control Superintendent’s employer, and they are responsible for setting the salary and regulating professional activities.

The County Commissioners must sign any contracts for weed control involving the County. Likewise, any formal complaints or suits arising from County Weed Control practices must be presented to them.

It is absolutely essential that County Weed Superintendents openly communicate with their County Commissioners on a regular basis.

3) FINANCE AND BUDGET

3.1 County Finance and Budgeting

Counties in Idaho depend on property taxes for a primary source of revenue. The Board of County Commissioners fixes the tax rate as necessary for raising enough funds to meet the budget for the ensuing fiscal year. However, tax money is not the only source of funds to contribute to a Noxious Weed Control budget. Tax levies for weed control shall only be the amount necessary to fund the amount of expenditure as determined by the adopted budget.

Most commonly a Counties fiscal year runs from October 1st to September 30th the following calendar year. Bare in mind those county taxes are acquired twice a year. Half on December 20th and half after June 20th the following calendar year. Therefore, you may not have the entire amount of your budget available for expense at one time. For instance, if your budget is \$100,000.00 you cannot purchase all your herbicides, a new truck and sprayer, and build a new holding compound for your herbicides at the turn of the new budget year. There must be a maintained level of “Treasurers Cash” available for expenditures and this is in direct relationship to the accumulation of county taxes. Also, there must always be funds available for continual expenses such as salaries and facility utility expenses. For best results keep an open channel of communication with your County Clerk and Deputy Clerk.

One of the biggest challenges for a CWS is to manage the County Weed Control Budget. Generally counties have their dedicated Weed Control Fund and some have a Revolving Fund. The Fund can be broken into four separate Accounts: Account A - Salaries, Account B - Other

Expenses, Account C – Capital Outlay, Account D – Benefits Some funds may be Account A and D combined into one Account. The accounts are broken into line item account (4 digit number) and a sub-account (4 digit number). Generally the line item account number is the same in both funds. These line items are used for accounting for expenses and purchases and are vital in determining departmental budgets and developing future budget needs.

In managing a budget you are able to utilize all accounts within your Fund. You are also able to move (or utilize) funds from one account to another. The only account that cannot be added to from another account is Account A (Salaries). For instance, you have budgeted \$30,000.00 for a new vehicle Account C line item 0801-000. After your bid is awarded you only spent \$23,000.00 of the budgeted amount. You have unexpectedly found a patch of Leafy spurge that you figure is going to cost about \$5,000.00 to control. You know that your chemical budget Account B line item 0630-0000 is almost empty and you need to use the remainder of the funds for 'planned projects. You can utilize the remainder funds of 0801-000 to purchase the needed pesticide to control the Leafy spurge. Traditionally you could not move the funds from Account C to Account A, but you can move funds from Account A to Account B. Remember that you can utilize the funds within the accounts, but do not exceed the total funded amount budgeted in your Fund.

You are not able to move funds from Fund to Fund. Revolving Funds and/or RC&D Accounts are generally for cost share monies and other sources of income. For more information on Revolving funds see Appendix C

Funds available from other agencies on whose lands the County will contract to do weed control work will likely be applied to the following year's budget, but not the ensuing year's budget unless a revolving fund is established. It is important not to rely upon payments for work to be done as a sole source of income.

3.2 Source of Funds of County Control Authorities (22-2406)

The Board of County Commissioners for each County in the State of Idaho may levy annually upon all taxable property of the County, a tax for prevention, control, and eradication of noxious weeds, to be collected and apportioned to the County Noxious Weed Fund. Such levies shall not exceed an amount of .0006 on each one hundred dollars of market value.

The Board of County Commissioners may utilize other methods or local options available to them for the purpose of funding a coordinated Noxious Weed Program. Any funds received by the County control authority shall be apportioned to the County Noxious Weed Fund and shall be accounted for in a manner as prescribed by the County Auditor.

3.3 Purchasing Guidelines:

There are many things to consider when attempting to purchase items such as Pesticides, Vehicles, Equipment, or Computers. Make sure you consult your county policies and procedures.

These may include:

Generally, purchases under \$4,999.99 can be bought at will.

Purchases that are greater than \$5,000.00 but less than \$24,999.99 require three verbal (including telephone) quotes.

Purchases greater than \$ 25,000.00 require formal bids, which may include:

- 1) Minimum of 30 days public notification - advertisement in which it must be advertised twice (2 notices in newspaper - one every two weeks within the 30 day period.
- 2) Requires Commissioners signature and may need to be reviewed by county attorney.
- 3) You may solicit bids from suppliers or allow the suppliers to respond to the posted advertisements.

As a government entity you are allowed to purchase from other governmental agencies bids as long as the supplier agrees to do so. For example, your local city government purchased a Chevrolet K 2500 SLE pickup from Dealer Z with the same features that you desire. If you call Dealer Z and ask them if they would be willing to sell you an identical truck, if they agree, you can order one without going through the formal bid process. Any tax-based entity is included in this such as: State, County, City, Federal, Irrigation Districts, Schools, etc.

When purchasing pesticides and adjuvants, many counties will order only the materials needed for immediate usage. Keeping the orders under \$4,999.99 allows them to order only the needed material. This not only helps you manage inventory, it also helps manage the department budget.

4) CALANDER OF WEED ISSUES

January

- County Annual Report due to ISD
- Late January or early February
 - Idaho Weed Conference
 - IAWCS Annual Meeting

February

March

- National Invasive Weed Awareness Week (Last Full week)
- A general notice for control of noxious weeds shall be published between March 1 and April 30, in a newspaper of general circulation within the County. The notice shall contain the list of noxious weeds and identify those known to be in the county, and shall stipulate the obligation to control. Work with the IWAC for yearly Awareness and Education

April

May

- **First Monday of May** Idaho Code 31-1602 The County Auditor sends a request to all County departments for budget estimates.
- **Third Monday of May** Idaho Code 31-1602 County departments prepare budget requests and submit them to the County Auditor.

June

- 30th State Government Fiscal year Ends

July

- 1st State Government Fiscal year Begins
- July to early August IAWCS 'Weeder Retreat' Outing

August

- **First Monday of August** Idaho Code 31-1604 A preliminary budget is prepared by the County Auditor and presented to the Board of County Commissioners. The Board will review the proposed budgets for consideration of a tentative appropriation for budgets for the ensuing fiscal year for each County department.
- **Third Monday of August** Idaho Code 31-1604 Tentative budgets are prepared and published no later than this date. The tentative budget may be lowered, but not raised in adopting the final budget.

September

- 30th County Fiscal Year Ends
- **Tuesday Following the First Monday in September** Idaho Code 31-1604 The Board of County Commissioners will begin public deliberation on the final budget. The hearing may be continued from day to day until concluded, but is not to exceed five (5) days.

October

- 1st County Fiscal Year Begins
- Start generating final reports and cost share information
- The County fiscal year begins on this date, as do city and federal fiscal years. The State maintains a fiscal year of July 1st to the last day of June.

November

December

- CWMA Cost Share Request Application and Previous Year Final reports are due.

5) COOPERATIVE WEED MANAGEMENT AREAS

With the generation of Idaho's Strategic Plan, Cooperative Weed Management Areas (CWMAs) began to develop rapidly statewide. CWMAs bring together interested and concerned parties for the purpose of combining expertise, energy, and resources to deal with noxious or invasive weed problems. The one common component of all CWMAs is the involvement of the County Weed Superintendent.

On January 3, 2002, a draft booklet *CWMA Cookbook – A Recipe for Success* was released by Rick VanBebber, ISDA's Interagency Noxious Weed Coordinator. The cookbook is available through the ISDA and contains information on getting organized, leading the effort, and

fostering success. It also contains activities to consider, as well as document examples.
Currently available on ISDA's Website

6) WEED MAPPING

The purpose of weed mapping is to accurately identify and assess infested areas. By mapping weed infestations, County Weed Superintendents can predict areas that are at risk for invasion, track changes in the infestation, determine a means of spread, assist in all aspects of a coordinated weed management plan, and assess economic impacts. Generating a map with weed infestations can also increase public awareness, and can be used for a variety of educational purposes and to assist in generating needed funds for projects and program development. And to determine weed management techniques

Idaho Counties are encouraged to make weed mapping and inventory a regular part of their program. Many Counties in the State are currently using technology such as Global Positioning Systems (GPS), remote sensing, and Geographic Information Systems (GIS) to collect, store, retrieve, and analyze invasive weed information.

Annually, ISDA will require that each County submit their mapped data. This data is collected and used for a statewide assessment and future planning for funding and development of programs. Also, consult the North American Weed Management Association for National Standards and other information.

Current ISDA Mapping Coordinator information is available on ISDA's Website.

7) NOXIOUS WEED FREE FORAGE AND STRAW CERTIFICATION PROGRAM

One of the most important issues in managing a weed program is the prevention of weeds from invading new sites. Preventing weeds that may exist in forage that is taken into the backcountry is an important part of the program.

In 2003 ISDA announced that they would solicit the help of each CWS in helping administrate the Idaho State Noxious Weed Free Forage and Straw Certification Program. Improved guidelines for the programs were organized in conjunction with the North American Weed Management Association (NAWMA). There are two types of weed free certification that can take place. One is by Idaho state standards, which has a reduced number of weeds on the list. The other follows the weeds listed on NAWMA's list. Also, Idaho State Certified Weed Free Forage must have each bale tagged by state standards. North American Certified Weed Free hay can have either tags or approved colored twine.

Certifying a field for weed free involves coordination with growers, knowing when they will be harvesting the crop, knowledge of weed species, and knowing the details of the program is vital to the success of the program. Current rules and regulations are available on ISDA's Website.

8) WEED MANGAMENT METHODS

8.1 Integrated Weed Management (IWM) is a multi-disciplinary, ecological approach that uses an array of effective weed management technologies, often in combination with one another, to maintain or develop ecologically healthy desired plant communities that are relatively weed-resistant while meeting other land use objectives (Guidelines for Coordinated Management of Noxious Weeds: Development of Weed Management Areas, 2002). Together these strategies and techniques are economically and environmentally more effective than any single option. Elements of Integrated Weed Management include prevention, education, detection/inventory, monitoring, treatment and rehabilitation.

8.2 Prevention is crucial since treatment alone cannot keep pace with the unchecked spread of invasive plants. It is more cost effective to prevent weeds from invading a site than to treat weeds once they are established. Prevention is the first priority in the management of invasive plants. Continued implementation of a weed prevention strategy will help reduce the establishment of new invasive plants and slow the spread of existing infestations.

8.3 Education regarding the threat of invasive plants is vital to successful accomplishment of weed management objectives. It is important to share ideas regarding steps people can take to help prevent establishment and spread of invasive plants. We must solicit the aid of the public to help slow weed expansion through wide spread use of prevention practices. Learning to (a) identify invasive plants, (b) the factors leading to their spread and (c) effective control measures are crucial components of education.

8.4 Inventory and surveys for new invasive plant infestations is an important aspect of the integrated weed management program. By working collectively with existing partners and volunteer groups, and by seeking new partners and funding opportunities, inventory and invasive weed detection will remain a high priority. Likewise, re-inventory of existing weed infestations helps track the footprint and plant density of these known infestations and guide treatment decisions. In addition to inventory of weed infestations, it is important to know which areas are weed-free so prevention measures can be applied to keep these areas clean.

Successful invasive weed management programs recognize the importance of early detection and rapid response to new weed infestations, particularly infestations of weed species new to the area. To effectively eradicate new weed infestations as they are found, detection must occur while the infestation is small and treatment must occur within the first or second season. Subsequent treatment and monitoring is also critical

8.5 Monitoring associated with IWM can focus on: (1) trends in infestation number, size and density, (2) the effect that invasive plants have on native or desired vegetation, soil, watershed, wildlife and other resources (3) the effects of treatment on target invasive plant infestations as well as native or desirable vegetation and (4) the effectiveness of treatments as implemented.

Acceptable methods of monitoring include qualitative and quantitative techniques such as photo points, walk-through evaluations, and permanent monitoring points and line, belt or quadrat

transects. One or more of these techniques may be used in conjunction as needed. Data consistency will be achieved through the use of common protocols.

Specific elements of monitoring include:

1. Documentation of location, overall distribution, number, size and density of invasive plant infestations.
2. Follow-up qualitative monitoring as often as needed to determine effectiveness of early detection/rapid response treatments on invasive plant species.
3. Ongoing inventory of susceptible plant communities within the Lemhi CWMA to map the location, distribution, size and density of invasive plant infestations.
4. Re-inventory on a rotational basis areas previously inventoried to maintain up to date inventory information.
5. Maintenance of Lemhi CWMA inventory data in the NRIS Invasive Plants inventory database, hosted by the FS.

Qualitative evaluation of immediate and short term impacts of treatment on target invasive plants and on non-target vegetation through the use of photo points and/or walk-through evaluations. These monitoring techniques are primarily for the use of herbicides or prescriptive grazing.

1. Monitoring will be conducted shortly after treatment to determine any potential need for modifications to treatment strategies.
2. Observations will be documented using photo point and qualitative monitoring record forms.

Quantitative evaluation of the long-term effects of treatment on target invasive plants and on non-target vegetation, whether beneficial or detrimental.

1. Permanent vegetation monitoring transects (Percent Cover) for pre-treatment and post-treatment plant community composition and percent cover by species group.
2. Permanent biological control monitoring points at release sites to track the survival, establishment, self-distribution and effectiveness of biological control agents.
 - a) Compilation, analysis and summarization of monitoring data.
 - b) Maintenance of monitoring data in databases to aid in detection of long-term vegetation trends.

8.6 Treatment will be focused where they have the greatest potential to reduce the impacts of invasive plants on resources, environmental and economic values. Weed species to be managed include State listed noxious weeds and non-State listed invasive species. The priority for treatment is determined by a weed species' ability to invade and displace native plants communities, the potential rate of expansion, the extent and proximity to susceptible native plant communities and the potential to successfully implement a treatment strategy.

Treatment techniques should include hand pulling, application of herbicides, the distribution of biological control agents and prescriptive grazing where appropriate.

8.6.1 Biological control of weeds is not a perfect solution for all noxious weed control programs. It can, however, be integrated as an additional tool with other weed

management methods. We are fortunate in Idaho to have three resources that are able to assist with our Biological control activities.

- a. The University of Idaho with Dr. Mark Schwarzlander works on identifying new agents that could be a potential for future release.
- b. The Nez Perce Bio-Control center with Paul Brusven helps rear species for release, provides releases to the counties, assists with monitoring and educational programs and maintains the State Wide Bio-Control database. All release records should be turned into the center at the address below.
- c. ISDA/BLM State Wide Bio-Control Coordinator Ran by Joey Milan. Joey helps the counties with Bio-Control needs from monitoring to legal issues. If you have a question about Bio-Control this is a good place to start.

<p>Dr. Mark Schwarzlander Entomologist, Biological Control Dept. of PSES, College of Agriculture University of Idaho Moscow, ID 83844 208.885.9246 markschw@uidaho.edu</p>	<p>Paul Brusven Coordinator Bio-Control Center Nez Perce Tribe P.O. Box 365 260 Bever Grade Lapwai, Id 83540 208.843.9374 office 208.843.8373 fax pbrusven@nezperce.org</p>	<p>Joseph Milan Biological Control Specialist BLM/ISDA 3948 Development Ave Boise, Idaho 83705 Office: (208) 384-3487 Joseph_Milan@blm.gov</p>
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8.6.2 Cultural control consists of using crop rotation, planting or harvesting time or irrigation practices to help deter the establishment of weeds.

8.6.3 Mechanical Usage of shovels, discs, plow, mower, or any other type of machinery to destroy roots or vegetative growth of the weeds. This is the least expensive control option in new stands but the most expensive in established stands.

8.6.4 Herbicide Use of pesticide, applied through some type of equipment. This generally the larger part of weed control programs since it is the most immediate impacts at a reasonable cost. However is does require precise calculations, equipment, and application.

The usage of herbicides is generally the last tool one uses to control undesirable vegetation. Herbicides work in one of two ways. One way is that they work by contact. Contact herbicides work by controlling only the parts of the plants that the herbicide comes in contact with. They generally are not persistent in the soil and are best used for annual and biannual weeds. The second way herbicides work is by systemically moving into plants through either the leaves or the roots of the plant. These products are better on perennial plants and can give extended control by leaving a residue in the soil.

Herbicides work by disrupting cell growth, interruption of photosynthesis, interruption of amino acid synthesis, any many other ways. Knowledge of herbicide control methods can impact the decision in determining which herbicide(s) to use.

Knowing the weed species, what stage of growth the weeds are in, and future use of land are important in herbicide selection. Many herbicides work better when applied during the rosette stage, bud stage, or as a fall application.

In order to use a herbicide on a specific site two items must appear on the label. The pest (weed) that you are trying to control and the crop (Wheat, alfalfa, roadside, non-crop, pasture, rangeland, ornamental, etc). If one of these is not present then the product may not be used and it is against the federal law to do so.

Consult sources such as other CWS, product manufactures, distributors, universities, CDMS directory, and many others for specific usages and details.

8.7 Calibration of Equipment One of the primary factors that the desired outcome was not achieved during a chemical treatment is a direct result of user error. By adding too much herbicide or not enough the results can be night and day. One of the biggest cost savings to a county weed program would be to maintain and keep your equipment calibrated. Calibration does take a little time, but once you get into the routine of doing it is easy, saves expenses and is required by law. Lack of calibration is costly by either using more herbicide than is needed or by having to reapply the herbicide at a later date because of poor control. Helpful worksheets have been supplied in appendix 13.8 on calibration of boom, boomless, and backpack sprayers.

8.8 Rehabilitation Ultimately, the goal for weed management efforts is to restore and maintain healthy desired plant communities that are resistant to noxious weed establishment, that recover quickly from disturbances and provide ecosystem functionality. Healthy plant communities provide for fish and wildlife habitat, soil and watershed stability, biodiversity, and contribute to improved and sustained land use opportunities for commercial and private interests. Many weed-infested plant communities are able to successfully re-establish without intervention after control efforts. However, sites that are severely damaged or at which few desirable species remain may not be able to recover without additional rehabilitation. Some measures could include changes in land use to remove the source of disturbance, seeding, supplemental irrigation, protective measures such as fencing, etc. These rehabilitative measures are used in conjunction with weed control treatments with the objective of re-establishing a desired plant community at the site.

9) LEGAL PROBLEMS RELATED TO COUNTY WEED CONTROL

9.1 Noxious Weed Law

9.2 Enforcement of the Noxious Weed Law

9.3 Revolving Weed Fund Idaho's Noxious Weed Law (Idaho Code, Title 22, Section 2406) sets forth requirements for Counties wishing to establish a revolving fund account. Subsection (1)(h) reads, "Use the noxious weed fund, which may be a revolving fund, only for noxious weed purposes."

A revolving fund account should be designated as a “Noxious Weed Control Revolving Trust Fund Account,” and kept separate from other budgeted weed accounts. All payments for expenditures from the revolving fund account are usually done through the County Clerk’s Office by submitting claims. This is the same procedure as set forth for budgeted accounts.

Generally, if a revolving account is not established, payments collected for services or materials will revert back to the dedicated weed fund. The Board of County Commissioners must approve any revolving fund accounts and accounts must be established through the County Clerk’s Office.

The purpose for establishing a revolving fund is to lessen the need for using tax-appropriated funds for the weed control budget, particularly for the purchase of chemicals and the chemical fund. An accumulation of unused funds in a revolving account over several years could provide the County Commissioners or Clerk reason to believe the fund as superfluous and result in a reduction of budgeted funds designated for noxious weed control.

9.4 ICRMP

9.5 Prosecuting attorney

9.6 Hiring and Firing Procedures

9.7 Required Permitting and Licensing

9.7.1 National Pollution Discharge Elimination System (NPDES) Beginning in 2012, applicators throughout the State of Idaho are required to be compliant with the National Pollution Discharge Elimination System (NPDES). This permit holds several different meanings dependent on the type of operation you are running and in what types of areas. A quick background on NPDES is as follows; in 2006 the National Cotton Council filed a suit against the Environmental Protection Agency (EPA). Findings from this lawsuit determined that pesticides were and are a pollutant. Due to the language found within the Clean Water Act, any pollutant discharged to Waters of the United States (WOUS) needs to have coverage under an NPDES permit. Most states throughout the US decided to create their own permit system, this adds a financial burden to the state but gives that state the added flexibility of administering their own program. Idaho is one of the few states that decided not to create its own permit system and therefor the EPA has been tasked to oversee the NPDES permitting for Idaho.

It is important to remember that this permit only applies to pesticide applications to WOUS! While the definition for WOUS is in draft format and confusing enough a general rule of thumb is the high water line of virtually any water body is considered Waters of the United States and requires coverage under an NPDES permit. If you are not applying a pesticide below the high water mark you do not need a permit, however the fines for violating the Clean Water Act are significant and you may want to consider going through the steps in case you accidentally leave a nozzle running too long. By in large it is recommended that every county weed control program go through the steps of making sure they are covered under the permit.

There are several factors that determine how you need to go about getting coverage under the permit. The best way is to go the EPA website shown below and do the Interactive Decision-making tool. www.cfpub.epa.gov/npdes/home.cfm?program_id=410 You can also find a link to

this site on the weed superintendents website. The tool walks you through the following questions.

1. Will you be applying or hiring someone to apply pesticides that will result in a discharge to waters of the U.S. (yes or no)
 - a. If you answered no you do not need a permit
 - b. If you answered yes go to question 2
2. Is the pesticide that you will apply a biological pesticide or a chemical pesticide that will leave a residue? (yes or no) *“Don’t get hung-up on this question; we are county weed superintendents who use chemical pesticides that do leave a residue so the only answer here is yes”.*
3. Will your discharge to WOUS be solely a result of agricultural stormwater runoff or irrigation return flow? (yes or no) *“Certain agricultural entities are exempt from needing this permit. What they are asking in this question is this; Are you only going to spray crop or agricultural fields and never below the high water line”.*
 - a. If you answered no go to question 4
 - b. If you answered yes you do not need a permit
4. Questions 4 actually takes you to step 2 in the decision making tool and only asks if you are applying pesticides in Idaho. *“Your answer to this question is yes”*
5. Will your pesticide application be for one of the following pesticide use patterns?
 - i. Mosquito and Other Flying Insect Pest Control
 - ii. Weed and Algae Control
 - iii. Animal Pest Control
 - iv. Forest Canopy Pest Control

“Even though most of us are primarily focusing on terrestrial weeds we do fall into the category of applying to weed and algae control so your answer to this question is yes”.
6. Will your discharge from the application of pesticides be:
 - i. To waters identified as impaired by a substance which either is an active ingredient in that pesticide or is a degradate of such an active ingredient. *“Likely this does not apply to you, however to be certain you would need to follow the links in the decision making tool and find your area to determine if any of the water bodies that you are applying to meet this criteria”.*
 - ii. To a Tier 3 water, unless the purpose is to restore or maintain water quality or protect public health, and the resulting discharge either does not degrade water quality or only degrades water quality on a short-term or temporary basis. *“This will most likely be the same as the answer above, however it is still recommended that you check”.*
 - iii. A discharge that is previously or currently covered by another NPDES permit. *“You don’t need two permits in the same area if you can work under someone else’s, however it is recommended that your answer be no for this question”.*
 - iv. To a Water of the United States containing a National Marine Fisheries Service Listed Resource of Concern for which you are not able to certify to at least one of the six eligibility criteria or EPA denied your certification under those criteria. *“Essentially this boils down to if you*

have Salmon or Steelhead in your rivers within the area that you are going to be applying the pesticide. This even includes the tributaries that flow into these water bodies. Counties that are affected by this are; Adams, Benewah, Blaine, Clearwater, Custer, Idaho, Latah, Lemhi, Lewis, Nez Perce, Shoshone, Valley”.

- a. If you are not one of the counties listed in iv you could select no for this question, however because you are a county you are still going to have to apply for an individual permit.
- b. If you are one of the counties listed in iv you have to apply for the permit regardless.

The end result of this tool for counties is that every county has to apply for an individual permit if they are going to be applying pesticides below the high water mark. In order to apply for this permit you have to go to this website www.cfpub.epa.gov/npdes/pesticides/enoi.cfm or you can find a link from our website. Click on the ENOI symbol which then redirects you to another site call the Central Data Exchange. If you have not registered with this site you do so at this point so that you have a log in ID and password. Once you log in you can create your Notice of Intent (NOI). Most of this information is self-explanatory as you navigate through the system but hear are a few suggestions or recommendations as you go.

1. The permit will ask if you are a large entity, you are only if you have a population of over 10,000 people within your County.
2. Your pest management area can be any area that you want and think you will be applying pesticides in. Most counties have decided to either use their county boundary or CWMA boundary as the pest management area.
3. If you are one of the counties listed above with Salmon or Steelhead you may want to consider doing two pest management areas. The first being the entire area that you are responsible for and the second only being the area that have Salmon or Steelhead within them.
4. Federal facilities essentially mean are you going to be applying below the high water mark on federal land.
5. For the Tier 3 and Water Quality impaired waters you need to double check on the EPA website to see if your waters meet these criterions.
6. Finally the biggest place counties have made a mistake are on question D that asks the following, “Endangered Species Protection: Complete Section D for each Pest Management Area for which coverage under EPA’s Pesticide General Permit is desired. Copy this section for non-electronic submissions.
 - a. If you are applying a pesticide below the high-water mark to waters that Have Salmon or Steelhead you need do select F! This includes any tributaries that may flow into these water bodies as well.
 - b. If you are not applying a pesticide below the high-water mark to waters that Have Salmon or Steelhead you need do select A!
7. If you selected F you then have to continue with additional questions including what type of herbicides and projected treatment dates. You will also have to go through an informal consultation with National Marine Fisheries Service (NMFS). In order to expedite this

process, our association has come up with a list of Best Management Practices to supply to NMFS which that have accepted and can be found in Appendix 13.9

8. The final process is to certify the NOI that you have just filled out. Some counties had their commissioners be the certifying agent and others used the county weed superintendent but this is up to you and your commissioners.

Additional points that must be made with the NPDES and the NOI are as follows;

1. If you are a large entity you have to fill out a Pesticide Discharge Management Plan (PDMP) prior to completing the NOI, a template is provided for you on our website. The plan is 35 pages long and therefore not included with this handbook.
2. In addition you have to fill out a PDMP if you are a small entity but are going to treat more than 80 surface acres of water or 20 linier miles of water. These linier miles are a combination of all herbicide treatments you do below the high-water line through the year.
3. You have to fill out an end of the year report if you meet the following criterion
 - a. You exceeded the thresholds written above in point 2, you are a Large entity or you selected F for the Salmon and Steelhead.
4. The end of the year report is completed by logging into the CDX that you registered for and selecting your active NOI. Select the tab that says annual report and complete the questions. This report is fairly simple but does require the total number of acres you treated below the high-water line throughout the year. Remember, this the total chemical acres you sprayed below the high-water line!
5. The NOI is good for 5 years once you have completed the certification process at which time you will have to apply again.

9.7.2 Idaho Pesticide Licenses

As a County Weed Superintendent you will need to be certified with the specific licenses and categories that you will be involved with through the Idaho State Department of Agriculture. The ISDA administers three different certifications; private, professional and a dealer's license. It is also crucial to note that you are not permitted to provide any recommendations on pesticide treatments if you are not certified within that category. You will need to be certified as a professional applicator with a minimum of the Agricultural Herbicide and Laws and Safety Categories to be compliant. This allows you to apply and give recommendations for herbicide application in agricultural fields, rights-of-ways, forest and rangeland. An additional category that is extremely important is Ornamental Herbicide which allows you to apply or give recommendations for residential herbicide applications. A final category that is highly recommended for every County Weed Superintendent is the Statewide Consultant category which allows you to recommend the use of pesticide products or specific pesticide products in agricultural or forest situations.

The second license that is often overlooked is the Dealer's license which allows you to sell restricted use pesticides. Many counties overlook this license if they do not sell herbicide, however if you are providing restricted use pesticides to other agencies or partners you are required to have this license.

9.8 Making Pesticide Recommendations

Superintendents are involved in giving recommendations for pesticide use and can be held liable if advice, sale, or application is contrary to labeling and damages occur. Before you make any recommendation, you have to consider two things

- a) Are you legally qualified to make this recommendation? Refer to section 9.6.2 to determine what categories you need to be compliant with.
- b) Do you have all of the pertinent information in order to make this recommendation? You should investigate fully what methods the property owner has used in the past and what their intentions are for the future. Once that information is available to you, a recommendation is in order.

Label recommendations should be first and foremost in your mind. Product labels are developed in close correspondence with the Environmental Protection Agency, thus it is against the federal law to use a product that is not consistent with its product label. Carefully review the label with the property owner, and you should always supply them with a current copy.

Keep a log of your activities with dates and times so that a year or so later, should a conflict arise, you can establish what advice was given, when it was given, and by whom.

If you or someone in your department will be applying a herbicide, assure that your application and records reflect the requirements as outlined in Idaho's Pesticide Rules and Regulations.

Each of you is relied upon as an expert in your field. Use care in fulfilling that responsibility to your employer and to the property owner who relies on you for advice. Veteran Weed Superintendents, Industry Representatives, Extension Agents, and Research Agencies can provide valuable assistance.

Conflicting opinions or recommendations can also give rise to litigation. When you have made a recommendation to an owner, invite all interested parties to review the program. Coordinate your efforts so that a healthy mixture of advice can guide the owner in determining what their program should entail.

10) SAFETY

10.1 Safety Meetings

Counties in Idaho are responsible and liable for the safety of their employees. Employee safety should be a strong part of a counties program. Keeping your employees from harming themselves, others, and property reduces problems but also reduces unnecessary expenses for a department. CWS should hold periodical safety meeting for their staff. It is also a great way to outreach to the community for support and their information. Utilize other department expertise, such as the Sheriff Department, Emergency Management Department, Fire Departments, ISDA Pesticide Inspectors.

A resource for obtaining information regarding safety meetings is the Idaho Risk Management Program (ICRMP) which can be found at www.icrmp.com These forms walk you through the hazards involved with a specific safety hazard and ways to mitigate the risk. These safety meetings can also be a way to address a problem that you may see a member of your crew doing.

Safety meeting may include subjects such as:

- Pesticide label review
- Equipment calibration
- Personal Protective Equipment
- ATV driving course
- Roadside driving techniques
- Fire Extinguisher usage
- Spill Containment
- Herbicide Application Techniques
- Vehicle Maintenance reports
- First Aid and CPR
- Pesticide Applicator Licensing Workshop (ISDA)

Safety includes exposure to and use of pesticides. Pesticide safety prevents harm to persons and property.

Suggested safety materials include:

- a) Idaho Pesticide Applicator Training Manual – This manual can be obtained from Idaho State Department of Agriculture (208) 332-8600
- b) Chapter 34, Title 22, Idaho Code, Idaho Pesticides and Chemigation Law
- c) 02.03.03, State of Idaho State Department of Agriculture, Rules Governing Pesticide and Chemigation Use and Application

The most important rule of pesticide safety is to read the pesticide label before each use and follow the directions. Safety should always be carefully practiced until it becomes habit; it requires a purposeful, positive attitude. Anything less invites injury or more serious consequences.

10.2 Personal Protective Equipment

Minimum requirements for personal protective clothing and equipment are listed on the label. The EPA Worker Protection Standard (WPS) for agricultural pesticides has been implemented. The WPS places several responsibilities on applicators and on employers for protecting their workers and handlers. The regulation covers agricultural workers on farms, forests, nurseries, and greenhouses. The WPS is very comprehensive and somewhat complicated; no attempt is made to cover it in detail here. Briefly, it sets requirements for personal protective clothing and equipment, training, decontamination, posting, restricted-entry interval, notification, and emergency assistance. Pesticide applicators and employers should be aware of requirements under WPS. Some of them are listed on the label; for others, the applicator and employer are

referred to the WPS itself. It is the applicator's and employer's responsibility to follow all provisions of the WPS for those products so labeled. To learn about the provisions, obtain a copy of the booklet "The Worker Protection Standard for Agricultural Pesticides—How to Comply: What Employers Need To Know." Counties are not exempt for WPS. Anytime a herbicide application is made on private property, the owner needs to be supplied with a copy of the label, as it is his responsibility to inform his employees.

While the new standard does not directly apply to individuals making non-agricultural use of pesticides, applicators would be well advised to follow relevant safety requirements of the Worker Protection Standard. In any case, applicators must follow any requirements on the pesticide label.

10.3 Other Precautions

- a) If you plan to apply any of the more dangerous pesticides, make sure your physician knows the types of compounds you are using.
- b) Follow all requirements listed on the pesticide label for personal protective clothing and equipment. Change and launder clothing separately from normal laundry, and bathe daily.
- c) Wear an appropriate respirator when loading or mixing concentrates and whenever pesticides may be inhaled. Make sure to use a clean cartridge.
- d) Recycle or dispose of pesticide containers properly, as described below.
- e) Keep your pesticide storage shed or room locked.
- f) Do not smoke, chew tobacco, eat, or use the restroom while spraying. Wash hands before engaging in these activities.
- g) Mix herbicides according to directions and apply precisely at the recommended rate.
- h) Experience shows that poisoning occurs most often in hot weather. Spraying with more toxic materials should be done during cooler periods insofar as possible. Take extra care when it is necessary to spray during hot weather. Take precautions to prevent drift.
- i) Cover crops treated with most pesticides should not be used as pasture or fed to livestock.
- j) Agricultural workers should avoid eating unwashed chemically treated fruit and vegetables in the field. The time limitations from application to harvest have been established to protect the consumer from harmful residues. Disregarding these limitations presents a special hazard to the picker, grower, and fieldperson. Read and follow the label!

10.4 What to Do for Poisoning

Follow the specific first aid instructions on the pesticide label. If you or any of your fellow workers have unusual or unexplained symptoms starting at work or later the same day, get medical advice quickly by calling your Poison Control Center 1-800-222-1222 or a physician. Do not let yourself or anyone else get dangerously sick before calling your physician or going to a hospital. It is better to be too cautious than too late. Take the pesticide label and MSDS (or information from the label including the product name, EPA registration number, common

name, percentage of active ingredient, and first aid instructions) to the physician. If you can't remove the label, take along the pesticide container (if not contaminated), but do not take it into the hospital or doctor's office.

If labeling instructions are not available, follow these general guidelines for first aid:

- a) The best first aid in pesticide emergencies is to stop the source of pesticide exposure as quickly as possible. By decontaminating the victim, you not only protect him or her from further poisoning, but you also protect yourself while administering first aid.
- b) First aid is the initial effort to help a victim while medical help is on the way. If you are alone with the victim, make sure the victim is breathing and is not being further exposed to the pesticide before you call for emergency help. Apply artificial respiration if the victim is not breathing. Do not become exposed to the pesticide yourself while you are trying to help.
- c) Pesticide on skin — Drench contaminated, exposed skin with plenty of water. Remove personal protective equipment and contaminated clothing. Wash skin and hair with mild detergent and water. Dry the victim and keep him or her comfortable.
- d) Pesticides in eye—Wash eye quickly, but gently, with clean running water. Rinse eye for 15 minutes or more.
- e) Inhaled pesticide—Get victim to fresh air immediately. Loosen tight clothing on victim that would constrict breathing. Apply artificial respiration if breathing has stopped or if the victim's skin is blue. If pesticide or vomit is on the victim's mouth or face, avoid direct contact and use a shaped airway tube, if available, for mouth-to-mouth resuscitation.
- f) Pesticide in mouth or swallowed—Rinse mouth with plenty of water. Do not induce vomiting or give high-potency activated charcoal unless those instructions are on the label or a physician tells you to do so.
- g) Do not induce vomiting if the victim is unconscious or having convulsions, if the victim has swallowed a corrosive poison, or if the victim has swallowed an emulsifiable concentrate or oil solution. If the label indicates, induce vomiting: Position the victim face down or kneeling forward. Put your finger or the blunt end of a spoon at the back of victim's throat.
- h) Only a physician should administer atropine. It can be poisonous if misused and may mask the symptoms of poisoning, thus leading to a delay in proper treatment.
- i) First aid kit—A properly equipped portable first aid kit can be important in a pesticide emergency. Do you have one available?

10.5 Pesticide Spills and Clean up

Pesticide spills and clean up requires immediate action based on foresight and preparation. All reasonable precautions should be taken to avoid spilling pesticides, but accidents will occur. Accidents are most likely to happen when pesticides are being transported or are in a storage area.

Keep a spill cleanup kit immediately available whenever you handle pesticides or their containers. If a spill occurs, you will not have the time or the opportunity to find all the items, below is a recommended list;

- a) Telephone numbers for emergency assistance
- b) Personal protective clothing and equipment as required by the label, including:
 - a. Chemical resistant gloves
 - b. Waterproof footwear or over boots
 - c. Chemical-resistant apron
 - d. Protective eyewear
 - e. Appropriate respirator, if applicable
- c) Containment “snakes” to confine the spill to a small area, absorbent materials, such as spill pillows, absorbent clay, dry peat moss, sawdust, “kitty litter,” activated charcoal, vermiculite, or paper to soak up liquid spills
- d) Sweeping compound to keep dry spills from drifting or wafting during cleanup
- e) A shovel, broom, and dustpan (folding brooms and shovels are handy because they can be carried easily), made from nonsparking and nonreactive material
- f) Heavy-duty detergent
- g) Any other spill cleanup items specified on the labeling of any products you use regularly
- h) A sturdy plastic container that can be tightly closed and that will hold the quantity of pesticide from the largest pesticide container being handled. This container can then be used to store all of your material for the spill kit.

Response to a pesticide spill may vary with size and location of the spill. You must know how to respond correctly when a spill occurs. Stopping large leaks or spills is often not simple. If you cannot manage a spill by yourself, get help. Even a spill that appears to be minor can endanger you, other people, and the environment if not handled correctly. Never leave a spill unattended. When in doubt, get assistance.

The faster you can contain, absorb, and dispose of a spill, the less chance that it will cause harm. Clean up spills immediately. Even minor dribbles or spills should be cleaned up as soon as possible to keep unprotected persons or animals from being exposed. A good way to remember the steps for a spill emergency is the “three C’s”: Control, Contain, Clean up:

Control the spill situation: first - protect yourself, then protect others, then protect the environment, stop the leak, and stay at the site.

Contain and confine the spill, protect water sources, absorb liquids, and cover dry materials.

Clean up the spill, decontaminate the spill site, neutralize the spill site, decontaminate equipment, and decontaminate yourself.

10.6 Reporting Spills

If a spill has resulted in or from a fire or poisoning call 9-1-1 for immediate response, and then report to the appropriate number below. All spills, fires and poisonings should be reported to the Idaho State Emergency Medical Service (EMS) dispatcher at **1-800-632-8000**

Additional help with chemical emergencies, including poisoning and other pesticide emergencies involving spills, leaks, fires, or exposures, may be obtained from the Chemical Transportation Emergency Center (CHEMTREC) at **1-800-262-8200**

10.7 Storage of Pesticide Containers

No person shall handle, transport, display, or distribute pesticides in such a manner as to endanger humans and their environment or to contaminate food, feed, or any other product that may be transported, stored, displayed, or distributed with such pesticides.

Storage of pesticide containers by professional applicators and pesticide dealers

- a) Empty or partially full pesticide containers that contain Class 1 (highly toxic) pesticides (LD50 of 50 or below) and that require the skull and crossbones insignia and the words “Danger—Poison” on the label; and Class 2 (moderately toxic) pesticides (LD50 under 500) that carry a “Warning” statement on the label; and Class 3 (slightly toxic) pesticides (LD50 of 500 to 5,000) which carry a “Caution” statement on the label shall be stored in one of the following enclosures, which when unattended shall be locked to prevent unauthorized persons, livestock, or animals from gaining entry:
 - i. closed vehicle
 - ii. closed trailer
 - iii. building or room
 - iv. fenced area with a fence at least 6 feet high
 - v. truck or trailer with solid sideracks and secured tailgate at least 6 feet above ground level.
- b) Empty or partially full pesticide containers that contain Class 4 pesticides (LD50 over 5,000) shall be stored in secure storage out of reach of children in one of the above enclosures.
- c) Warning notices visible from any direction shall be posted around all storage areas where partially full or empty containers that hold or have held pesticides required to be labeled with the signal words “Warning” or “Danger– Poison” are stored. Each warning notice shall be of such size that it is readable at a distance of 25 feet and be substantially as follows:

“DANGER POISON STORAGE AREA
ALL UNAUTHORIZED PERSONS KEEP OUT”

The notice shall be repeated in an appropriate language other than English when it may be reasonably anticipated that persons who do not understand the English language will come to the enclosure. The notice shall also contain the name and telephone number of a person to contact in case of an emergency.

10.7.1 How to manage empty containers

In Idaho there are specific rules regarding the use of herbicide containers and the proper methods for disposing of them. It is illegal to burn plastic chemical containers within the state and it is also illegal to reuse the containers. Make sure that prior to disposing of the container you read the label directions and ensure that there are no specific instructions regarding disposal. Most containers used by counties allow for two methods of disposal but both require that the container is triple rinsed which can be accomplished by pressure-rinse or multiple-rinse (multiple-rinse at least three times or as often as necessary to make the container clean). When completing this task it is important to empty the water used to rinse (rinsate) back into a sprayer and spray the material out in accordance with the product labeling.

- a) The first and least method of disposal is to deposit them in the landfill once they have been triple rinsed
- b) The second and preferred method is to take advantage of the ISDA container recycling program or Chipper program.

10.7.2 Pesticide Containers with an Unknown or Highly Toxic Pesticide

Containers with “STC” marked on them, excess pesticides, and those wastes considered hazardous must be disposed of at a RCRA-permitted facility. They may be disposed of through the Idaho State Department of Agriculture Pesticide Disposal Program; call 208-332-8615. If you have unusable pesticides that you would like to dispose of, contact Victor Mason with the ISDA Pesticide Disposal Program at 1-208-332-8628 or by email at vic.mason@agri.idaho.gov

10.8 Pre-Fire and Emergency Plan

Perception is reality and when it comes to pesticides and fuels the perception is that they are all hazardous. Preparing your community and most importantly your Emergency Management Systems (EMS) in regards to your facility is not only safe for you and your crew; it prepares the EMS if they need to respond to an emergency at your facility. Preparing a Pre-Fire plan and presenting it to the local fire department and EMS personnel will prepare them for any emergency that may take place.

Information such as a detailed map of the property and facility, storage location and arrangements of pesticides, location of Material Safety Data Sheets, fire hydrants, large equipment available, and emergency contact information are just a few of the items that should be contained in the program. Appendix 13.10 shows a detailed example of a Wilbur-Ellis Companies Pre-Fire plan.

11) WEB SITES OF INTEREST

Idaho Association of Weed Control Superintendents:	www.iawcs.org
Idaho Weed Control Association:	www.idahoweedcontrol.org
Idaho Weed Awareness Campaign:	www.idahoweedawareness.net
Idaho Association of Counties:	www.idcounties.org
Idaho State Department of Agriculture:	www.agri.state.id.us
North American Invasive Species Management Assoc:	www.nawma.org
Pesticide Label:	www.cdms.net

12) INVESTIGATING PESTICIDE INJURY COMPLAINTS

The information below was written and supplied by Dr. Don Morishita, Weed Scientist with the University of Idaho. The information may be helpful in case you are contacted by an individual who suspects pesticide injury due to an application made by you or your employees.

Knowing how to diagnose herbicide injury can be a challenging task. It requires not only how to identify herbicide injury symptoms, but also requires diplomacy, professionalism, and determination.

Two of the most important things to keep in mind when investigating a complaint are: 1) accurately determine the cause and extent of the problem (to the best of your ability), and 2) remain unbiased in your assessment and conduct yourself in a professional manner.

12.1 Conduct of the Investigator

- a) Answer the complaint as soon as possible. Injury symptoms and other conditions change rapidly. You want to look at the plants when they show their first symptomology. You also may want to look at the plants again at a later date to observe progression of symptoms.
- b) Be courteous and attentive. Listen carefully to the information given you and take notes.
- c) Don't be afraid to ask questions, but be tactful. Ask questions of all parties involved. Also, if you ask a question and get an answer that doesn't agree with your observations, try rewording and repeating the questions through the course of your conversation.
- d) Make it clear that the first visit is a fact-finding trip and that you intend to study your findings before making a conclusion. This may keep you from having to contradict yourself later.
- e) Make a thorough and systematic investigation of your own. If you can develop a systematic approach through the use of a checklist, you will be more likely to be thorough in your investigation.
- f) At first opportunity, isolate yourself and carefully study your observations and information you have received.
- g) Don't be afraid to seek additional expert help or advise if you are unsure of your conclusions. It can be beneficial to permit the additional help to conduct their investigation independently, then get together and compare notes and observations.
- h) Provide the parties with an answer as soon as possible.

12.2 Methods of Investigating Crop Injury

First and foremost, your investigation of a crop injury complaint must be professional. Facts that you should gather in your investigation includes information from the following list:

- a) Locate and determine the pattern of crop injury in the field. Patterns of injury may help identify the cause of the problem.
- b) Make records of your observations. All records are important. It's easier to delete unnecessary notes and photographs than to retrace or reestablish the facts and observations.
- c) Assess the crop condition. Collect plants with a spectrum of injury symptoms (from severely injured to uninjured plants) for later study.
- d) Consider all possible causes for observed symptoms. Take into consideration diseases, insects, nutrient deficiencies, herbicide carryover, and growing conditions.
- e) Sample collection. If soil and/or plant samples are taken, label them with date and site of collection. Place samples (particularly those for residue analysis) on ice immediately and store frozen.
- f) Record all important information.
 - i. *Dates*: Herbicide application, seedbed preparation, planting, irrigation, first observation of problem, etc.
 - ii. *Weather*: Before, during, and after herbicide application and/or planting. Include air and soil temperatures, rainfall, wind direction, and speed.
 - iii. *Soil information*: Moisture and condition (roughness, residue, and cloddiness) at planting and herbicide application.
 - iv. *Soil parameters*: Texture, organic matter, plant residue, soil variability, and other special problems.
 - v. *Cropping history*: Previous crop, herbicides used, tillage practices, fertility, irrigation, and weeds.
 - vi. *Seedbed preparation and tillage*: Equipment used and soil conditions at time of tillage operations.
 - vii. *Herbicide application*: Rates, sprayer type, application method, speed, pressure, nozzle type, operator, amount of herbicide per tank, carrier, additives, and incorporation method (if soil applied).
 - viii. *Fertilizer application*: Equipment used, type of fertilizer and rates.
 - ix. *Operations on adjacent areas*: Pesticide applications in neighboring fields during the time period that is pertinent to the problem being investigated.
 - x. *Weed Species*: collect plants, if necessary, for positive identification. Determine weed size at time of application (s), tillage, and planting.
- g) What to look for
 - i. Injury patterns in bands
 - ii. Injury caused by worn nozzles or other faulty equipment
 - iii. Uneven injury pattern
 - iv. Injury at ends of field
 - v. Herbicide agitation problems
 - vi. Drift patterns
 - vii. Changes in injury with soil type or organic matter
 - viii. Non-treated adjacent fields for comparison

- ix. Symptoms of susceptible weeds in the field
- x. Obvious symptoms of insects, disease, wind, hail, etc.

12.3 Interpreting your findings

After you have collected your information, it is important to take the time to study what you have. Always consider the possibility of a combination of factors such as insects, temperature extremes, wet or dry soils, and improper application rates, which together, can cause crop injury. A combination of these factors may be the cause of the problem for a grower, who until this year, has been getting away with unlabeled herbicides rates or tank mixtures.

Avoid giving conclusions, statements and recommendations that you cannot substantiate. If some type of action is needed to minimize the impact of the problem, provide your report as soon as you can reach a sound conclusion. Potential actions include replanting the crop, planting another crop, or removing a herbicide residue (usually for a limited area). Making an estimate of yield loss may be needed to establish the extent of the loss. Keep in mind that visual estimates of yield loss are not reliable. Yield from a damaged area of the field should be compared to yield from an undamaged area. The comparison should be within the same field, because yields between fields or between years are not comparable.

Try to make the interaction with the grower or complainant one of being helpful and educational, so the problem can be avoided in the future.

Some Causes of Herbicide Injury

Causes	Field Symptoms	Preventive Steps
Normal and accurate herbicide application	Lightening of crop color (chlorosis) after application; a consequence of some herbicide applications	Generally none. Accept the fact that some herbicides have harmless side effects. However, certain environmental conditions can cause injury.
Application of too high herbicide rates	General overall crop injury	Apply only at the recommended dosages.
Spray and/or vapor drift	The vegetation of a field or garden is affected with the heaviest injury closest to the drift source	Use low or nonvolatile herbicides. Use low pressure, higher water volumes and drift control devices. Apply under near calm conditions.
Additives	Crop yellowing, loss of vigor, stunting	Use additives only where herbicide labels so instruct.
Incompatible mixes	Crop injury, lack of weed control	Use only registered and recommended mixtures.
Spray contamination	Crop injury during first few passes or portion of the field by a herbicide	Flush and clean spray tanks thoroughly after every operation and particularly before use on a crop sensitive to the

	not being applied at the time	previously used herbicide.
Chemical residue in soil	Crops fail to germinate, or emerge and grow normally. Crops fail to grow normally when compost or manure is added	Check and follow label instructions regarding crop rotation restrictions. Check for herbicide residue in compost or manure before adding. Determine history of herbicide use on feeds or residue.
Poor chemical agitation	Crop injury during first few passes and often followed by poor weed control in remaining area of field	Add different herbicide formulations in correct order and agitate thoroughly before application.
Improper equipment	Strip injury due to worn nozzles, non-uniform nozzles, or end nozzles overlapping	Proper choice, adjustment, maintenance and calibration of spray equipment
Improper technique	Spot injury at sprayer turning points Banded injury patterns	Traverse length of field during application rather than applying in a circular manner. Shut down spray system when turning at the end of rows. Avoid overlapping of spray runs
Growth stage	General crop injury specific to the herbicide mode of action	Apply only at recommended growth stages
Susceptible varieties	General crop injury specific to the herbicide mode of action	Match herbicide with tolerant variety. Check label for varietal restrictions.
Frost	General yellowing, wilting and loss of vigor due to combination of herbicide and moisture stress.	Where possible avoid spraying soon after or before a frost.
Drought	General yellowing, wilting and loss of vigor due to combination of herbicide and moisture stress.	Only use herbicide to which crop has a high tolerance; use the maximum recommended water volume; do not spray during the heat of the day.
Cool wet conditions	Poor emergence, general yellowing, wilting and loss of vigor.	Only use herbicides to which the crop is tolerant.

13) APENDICIES

APPENDIX 13.1

THE ARTICLES OF ASSOCIATION AND BYLAWS OF THE IDAHO ASSOCIATION OF WEED CONTROL SUPERINTENDENTS (IAWCS)

ARTICLES OF ASSOCIATION

Article I. Name and Location:

The name of the Association shall be the Idaho Association of Weed Control Superintendents. Its principal office shall be located at the office of the Secretary-Treasurer of the Association.

Article II. Nature of the Association:

This Association shall be a voluntary one, organized for the benefit of the Weed Superintendents of Idaho, but not organized for pecuniary profit, nor shall it have capital, stock, nor shall it make or declare dividends.

Article III. Purposes and Objectives of the Association:

The purposes and objectives of the Association shall be as follows:

- A. To provide a means for exchange of information and ideas among persons engaged in regulatory noxious weed control in Idaho.
- B. To cooperate with all groups, organizations, agencies, companies, and individuals involved with or concerned with noxious weed control.
- C. To encourage and support research and educational programs on noxious weed problems and their solution.
- D. To sponsor desirable noxious weed laws and noxious weed law changes as may be essential to strong County and State programs.
- E. To strengthen and support the total noxious weed control effort in Idaho and surrounding states and provinces.
- F. To help serve the needs of fellow Weed Control Superintendents in performing their assigned duties and improving their job performance.
- G. To increase the knowledge of the Weed Control Superintendents in the methodologies of noxious weed control and to educate the Weed Control Superintendents in other related matters.

- H. To deal with the public in difficult and complex situations and to educate the public as to the reasons and needs for noxious weed control.
- I. To promote good cooperation and understanding with the proper authorities.
- J. To promote active membership and participation of the Weed Control Superintendents within the Idaho Weed Control Association.
- K. Promote permanent funding for Weed Departments through Federal, State, and other sources.

Article IV. Membership:

- A. Active members: Shall be all individuals who are County Weed Control Superintendents in Idaho. Other individuals involved in regulatory weed control may be invited to join the Association by the voting membership. Active members must have paid current dues to vote.
- B. Voting: Shall be limited to active members present at the meeting.
- C. Dues: There may be dues for membership and may be charges assessed to members when voted upon by the active members at the annual meeting.

Article V. Organization:

- A. This Association shall be governed by the active membership, or by the Executive Board.
- B. The officers of this Association shall be the Chairman, Vice-Chairman, and Secretary / Treasure who shall perform the duties usually pertaining to these offices. .

Article VII. Duration:

- A. The duration of the Association shall be perpetual.

**IDAHO ASSOCIATION OF WEED CONTROL SUPERINTENDENTS
BY-LAWS**

Article I – Executive Board and Special Committees

- A. The Executive Board is composed of one active member of the IAWCS from each of the six (6) Regions, and the officers of the IAWCS (i.e., Chair, Vice-Chair, and Secretary-Treasurer) who shall additionally act in their capacities of office for the Executive Board. Each member, except the Secretary-Treasurer, shall have one vote, with the Chair voting only in the case of a tie. Additionally, each of the six (6) Regions shall appoint one (1) alternate to attend the meetings, provide input, and participate in discussions. Alternates have voting rights only when their appointed Region representative is absent.
- B. Terms of Office/Appointment: Regular and Alternate Board members shall be appointed or elected by their Regions bi-annually in even years. The Chair and Vice-Chair shall be elected bi-annually in odd years. The Secretary-Treasurer shall serve a two-year term, renewable by majority vote of the Executive Board in odd years at the Winter Executive Board Meeting. All other elections / appointments shall take place at the IAWCS annual meeting.

- C. Removal from Board: Officers and Executive Board members may be removed for cause. Officers and Executive Board members may also be asked to step down if attendance is less than 50% of the scheduled meetings in a calendar year.
- D. A quorum shall consist of a simple majority of the Executive Board Members. A quorum must be present at any authorized meeting of the IAWCS Executive Board and shall be required for action on any item before the Board.
- E. The Executive Board or the Chair may appoint special projects or other committees to conduct various activities to further the goals, purposes, and objectives of the IAWCS.
- F. The Executive Board will also serve as a nominating committee for IAWCS officers and will be charged with determining if the nominees are willing and able to serve (have financial support for the time and travel expenses that come with the job).

Article II - Finances

- A. Expenditures will be made after approval by a majority vote of the Executive Board.
- B Expenditures over \$250 must be approved by a majority vote from the Executive Board of the IAWCS.
- C. Emergencies: In the event of the need for an emergency expenditure, the Officers of the IAWCS may confer and take such action as necessary. The Executive Board or the active membership, as appropriate, at the next regular or special meeting, should submit these actions for ratification.
- D. The fiscal year for the Association shall be from October 1 to September 30.
- E. The Secretary / Treasure shall submit a current financial report at all Executive Board meetings and the annual meeting.
- F. The Executive Board shall approve a budget at the fall Executive Board meeting for the upcoming year.
- G. Changes to the IAWCS annual dues amount shall be voted on by the IAWCS membership.

Article III - Procedures and Meetings

- A. Procedures: The Officers and Executive Board shall prescribe the manner and form in which the affairs of the IAWCS shall be conducted. The Executive Board may adopt policies, by majority vote of the Board, which provides consistency in conducting business, which meet the purposes and objectives of the IAWCS, and which do not conflict with nor amend the Articles of Association or By-laws.
- B. Meetings:
 - 1. The annual meeting of the IAWCS shall be held each year, sometime prior to the annual Idaho Weed Control Association (IWCA) conference.
 - 2. Regional meetings may be held whenever deemed necessary by the majority of the County Weed Superintendents within that Region.
 - 3. The IAWCS Chair may call a meeting at his discretion. Members must have 5 days' notification prior to such a meeting.

4. The Executive Board shall meet at least three times annually, with one being prior to the annual IWC. The remaining meeting dates and locations shall be set by the policy and preference of the current Executive Board. Additional meetings may be held at the Executive Board’s discretion.
5. At annual, district, or called meetings, a simple majority of the active members must be present to constitute a quorum. A quorum must be present to conduct business.
6. Unless otherwise specified, a simple majority of the active members present shall carry all motions or elections. Voting may be done by voice or raising of hands. The Chair may call for a roll call or secret ballot vote on any motion.

Article VI. Amendments:

A. Any Article or Bylaw of this Association may be amended by a vote of the active members at any annual meeting. The proposed amendment(s) shall be presented to the Executive Board no later than the Fall Executive Board meeting (or 2 Executive Board meetings) prior to the IAWCS Annual Meeting. Such action must be approved by at least two-thirds of the active voting membership present at the annual meeting.

Article IV – Clarification

A. These Articles and By-Laws shall supersede any and all other previous Articles and By-Laws of the Idaho Association of Weed Control Superintendents (IAWCS)

Revised this _____ day of _____, 2012, after submittal to and review by the general membership at the annual meeting of January 31, 2012, and voted by proxy as submitted by the Regional Executive Board members

:

Region 1	Aye	<u> X </u>	Nay	_____	Region 4	Aye	<u> X </u>	Nay	_____
Region 2	Aye	<u> X </u>	Nay	_____	Region 5	Aye	<u> X </u>	Nay	_____
Region 3	Aye	<u> X </u>	Nay	_____	Region 6	Aye	<u> X </u>	Nay	_____

Alan Martinson, IAWCS Chair

Daniel Bertram, IAWCS Vice chair

Bonnie Davis, IAWCS Secretary / Treasure

APPENDIX 13.2

**Idaho Association of Weed Control Superintendents
STRATEGIC PLAN
Updated Spring 2013**

- **MISSION STATEMENT** *Empowering our professional county weed superintendents with the best available resources to enhance statewide collaboration for invasive plant management.*

GOALS AND OBJECTIVES

Goal 1 - Each county has a dedicated noxious weed control department and a dedicated full-time weed superintendent that reports directly to the board of County Commissioners.

Objective 1.1: Further develop, sponsor and promote the duties, needs and responsibilities of County Commissioners and County clerk in regards to the weed law. ,

Strategies

1.1a Develop educational opportunities for delivery at Idaho Association of County meetings.

Objective 1.2: Further develop, sponsor, and promote the duties and need for full-time dedicated weed superintendants in each county.

Strategies

1.2a Build partnerships with other organizations (including, but not limited to, Idaho Cattlemen's Association, Idaho Counties' Risk Management Program, Idaho Weed Control Association, Idaho Weed Coordinating Committee, Idaho Water Users, Soil Conservation Districts, Farm Services, Resource Conservation and Development, and Natural Resources Conservation Service), as well as NGO's to promote the need for full-time, dedicated weed superintendents for every county. Get on annual conference agendas, targeting one or two per year. Participate in annual joint meeting of statewide weed organizations

1.2b Monitor open positions and address by letter or direct contact with county commissioners of that county to promote a full-time weed superintendent position. Develop a standard letter that can be sent out by the appropriate regional representative when weed superintendent positions come open.

1.2c IAWCS to be available to help weed superintendents develop their own full-time, dedicated county weed department.

Goal 2 - Enhance collaboration and participation among all land stewards.

Objective 2.1: Maintain relations with CWMA's.

Strategies

2.1a Encourage strong participation of weed superintendents

2.1b Encourage promotion and idea sharing at IWC (e.g., more presentations on CWMA projects)

Objective 2.2: Be an active partner with other associates and share resources.

Strategies

2.2a Maintain a master list of associations

Objective 2.3: Help promote weed meetings throughout the state.

Strategies

2.3a Weed superintendents will send meeting information to IAWCS Secretary/ Treasurer or designated person, who will send it to IAWCS webmaster for posting.

Goal 3 - Develop and improve tools and resource to assist in building expertise among the IAWCS and its members.

Objective 3.1: Enhance communications between the officers and the executive board.

Strategies

3.1a Attend quarterly meetings and send emails in between.

Objective 3.2 Enhance communications between the regional representative and their members.

3.2a Regional Representatives will consult with their constituency. Make sure Regional Representatives are able and willing to contribute additional time (and travel expenses etc.) to keep members informed as well as complete their duties as a representative of the general membership.

3.2b Promote regional meetings to improve networking.

Objective 3.3 Enhance the communication between IAWCS and the IAWCS member that is appointed by the Executive Board to represent the association.

Strategies

3.3a Provide summary of meetings and activities attended.

Objective 3.4: Encourage weed superintendents to use each other as a resource.

Strategies

3.4a. Encourage camaraderie and foster relationships among our peers.

3.4b Host Region Meetings for Weed Superintendents and encourage regions to gather and meet on a regular basis.

3.4c Develop a folder of past legal actions which counties have dealt with for reference. (use this as a tool for all county weed superintendents). Water issues would be an important part of this folder.

3.4d List of weed superintendents and their gifts and talents

3.4e Use emails, websites, etc to share ideas.

Objective 3.5: Further build the relationship with ISDA & the University systems.

Strategies

3.5 a Members shall funnel questions and concerns related to CWS duties to the Executive Board to ISDA & Universities.

3.5 c The Chair and Vice Chair with meet with the Director of ISDA annual.

Objective 3.6: Stay active in current, pertinent, and national weed issues.

Objective 3.7: Provide the Superintendent's Handbook to all members.

Strategies

3.7a Each new chair reviews and updates handbook.

3.7b Each regional representative will take responsibility to discuss with new Superintendents

3.7c. Updated version of the weed superintendents handbook will be provided on the IAWCS website.

Goal 4 - Enhance professionalism of members

Objective 4.1 Regional Representatives will make contact with new superintendants to provide assistance as needed.

Strategies

4.1a Provide and discuss the Weed Super Handbook.

Objective 4.2: Financially support members to attend LIA.

Strategies

4.2a One member per year with preference given to Executive Board member.

Objective 4.3: Stay current with new technologies and trends.

Strategies

4.3a Annual IAWCS meeting

4.3b By supporting workshops, courses and meetings.

4.3c Help Support E. Idaho Weed Control Association and Western Idaho Weed Control Association.

Objective 4.4: Provide standards of performance for professional certification.

Strategies

4.4a Offer a system of checks and balances.

4.4b Review NAWMA suggestions for weed superintendents

4.4c Review NAWMA's Certified Manager of Invasive Plants Program for Job requirements and endorsement.

Goal 5 - Increase awareness about the need for invasive plant management.

Objective 5.1: Enhance education on the diversity and need of integrated weed management.

Strategies

5.1a Use the IAWCS website and social media networks.

5.1b Maintain IAWCS website.

Objective 5.2: Emphasize the urgency for invasive plant management.

Strategies

5.2a Use website and social media

5.2b Reach out to other associations.

Objective 5.3 Support the Idaho Weed Awareness Campaign.

Strategies

5.3a Be an active member in the Idaho Weed Awareness Campaign

5.3b Designate an IAWCS member to the IWAC Board.

Goal 6 - Play an active role in policy and legislative activities related to invasive species.

Objective 6.1: Cooperate with IWCA and the Idaho Association of Counties on any issue related to invasive terrestrial and aquatic plants.

Strategies

6.1a Membership and board members should be willing to testify in legislative and other government policy hearings. Refer to superintendent gifts and talents list for potential resources.

6.1b Communicate testimony to IAWCS membership

Objective 6.2: Monitor legislation or policies concerning non-plant invasive species.

Strategies

6.2a Monitor through Food Producers/IWCA/ISDA or other organizations.

6.2b Select IAWCS member(s) as appointed by the Executive Board to attend Invasive Species meetings.

Objective 6.3: Facilitate superintendent involvement with local government

Strategies

6.3a Encourage the use of other superintendents who have experience with this as a resource. This should be a presentation focus at IAC.

6.3b Create a superintendent knowledge list to be updated at the annual meeting and placed on the website.

6.3c Facilitate superintendent involvement with local planning and zoning and ordinance development pertaining to weed control.

6.3d Facilitate superintendent involvement with the Idaho Realtors Association to solicit support in awareness and disclosure in land exchange.

Objective 6.4: Create regional cohesion on specific weed control issues and develop mechanisms for moving ideas/strategies developed by regions through the Executive Board and out to the membership as well as over to other weed management groups (IWCA and IWAC) as is appropriate.

Strategies

6.4a Executive Board member will take leadership in developing proposals and issue papers.

6.4b Keep current with new technological advances to improve networking of the IAWCS membership.

Objective 6.5: Encourage weed superintendents to interact with State and Federal government.

Strategies

6.5a Provide access to the Legislative directory annually, to current membership as soon as available.

6.5b Provide an updated contact list for congressional delegation and staffers annually to current membership as soon as available.

Goal 7 - Adopt procedures for implementing, evaluating and revising the IAWCS strategic plan.

Objective 7.1: Have a procedure for the executive board to follow.

Strategies

7.1a Use annual Feb. meeting to feel pulse of organization; a time to brainstorm and troubleshoot.

Objective 7.2: Strategic plan will be included in Superintendent's Handbook and Website with directions for commenting and providing input.

Strategies

7.2a Input form, and who and where to send ideas.

Objective 7.3: The Strategic plan shall be reviewed by the Vice Chair ever two years.

APPENDIX 13.3

IAWCS EXECUTIVE BOARD MEMBERS DUTIES (Adopted 4-4-2013)

IAWCS CHAIR - Position Description

This position shall:

1. Attend and conduct Executive Board and General Membership meetings.
2. Set meeting schedules and agenda topics, in cooperation with Vice-Chair.
3. Consult with the membership on important noxious weed issues and represent the membership's (IAWCS) opinions on such issues.
4. Appoint members of the I.A.W.C.S., to serve on special committees that are formed to benefit weed control across the State.
5. Meet with the Director of Agriculture on an annual basis
6. Arrange for IAWCS to be on the IAC/IACC program
7. Correspond with IAWCS members, as needed, informing them of important noxious weed issues, updates, or changes throughout the State.
8. Appoint new officers or Executive Board members to replace officers or members unable to perform their duties or are unable to attend the specified number of meetings, as outlined in the Articles of Association and By-Laws for the I.A.W.C.S.
9. Represent IAWCS on the Idaho Weed Control Association (IWCA) Board, and send a meeting summary to IAWCS membership.
10. Represent IAWCS on the Idaho Weed Coordinating committee (IWCC), and send a meeting summary to IAWCS membership.
11. Review the Weed Superintendents Handbook upon taking office. Update as needed
12. Assist the Vice-Chair and Secretary-Treasurer when needed.

Timeline for Duties:

<i>January</i>	Assist the Vice-Chair and Secretary with items in preparation for General Membership winter meeting (generally held in February), including awards, schedules, house-keeping issues, agenda, etc. Send out Agenda for February winter meeting, if not completed in December.
<i>February</i>	IAWCS annual winter meeting in Boise. Send out thank you letters to speakers for the annual meeting.
<i>March</i>	Prepare Agenda, set place, date and time for the April Executive Board meeting. Send out notice/reminder to members of such meeting, along with any minutes of previous meetings prepared by Secretary-Treasurer (or send Agenda to Secretary-Treasurer to send out). <i>Meet with the Director of Agriculture</i>
<i>April</i>	Attend and conduct Executive Board meeting.
<i>May</i>	Assist Vice-Chair with July "Weeder's Retreat" plans, agenda, speakers, etc. Prepare Agenda for Executive Board meeting at the Retreat.
<i>June</i>	Send newsletter, reflect on highlights of occurrences since February General Membership meeting.
<i>July</i>	Weeder's Retreat. Attend and conduct Executive Board meeting.

- September* Prepare Agenda, set date, place and time for the October (or fall) Executive Board meeting. Send Agenda and minutes of previous meeting or send Agenda to Secretary-Treasurer to send out with minutes.
- October* Attend and conduct Executive Board meeting.
- November* Begin preparation of plaques & awards for years of service for Weed Superintendents to be presented at annual meeting.
- December* Prepare for February annual winter meeting and assist Vice-Chair with any planning issues. Send newsletter reflecting on highlights or important issues that have occurred throughout the year. Send out Agenda for February winter meeting or coordinate with Secretary-Treasurer.

IAWCS VICE-CHAIR - Position Description

This position shall:

1. Attend Executive Board and General Membership meetings.
2. Conduct Executive Board and General Membership meetings in the absence of the Chair.
3. Fulfill all other Chair position duties in the absence of the Chair.
4. Plan Agenda topics for summer and winter membership meetings, in cooperation with Chair.
5. Review the Strategic Plan upon taking office. Update as needed
6. Assist the Chair and Secretary-Treasurer when needed.

Timeline for Duties:

- January* Check with the Secretary-Treasurer for head counts (if needed for catered meals), make the meal and break arrangements for the winter General Membership meeting. Send confirmation letters to speakers. Make sure speakers have presentation equipment or make arrangements for it.
- February* IAWCS annual winter meeting in Boise. This is a good time to gather ideas and take note of issues for the upcoming summer and the next annual winter meeting.
- March* *Meet with the Director of Agriculture*
- April* Attend Executive Board meeting.
- May* Begin planning Agenda and arranging speakers for July "Weeder's Retreat". Typically, the Department of Agriculture Weed Coordinator should be allowed time for presentations and updates. Solicit help from ISDA and membership for drinks, wood, meal preparation, etc.
- June* By the 1st week of June, have Weeder's Retreat Agenda prepared and sent to Secretary-Treasurer for mailing. RSVP's are necessary for meal planning. Assure that you have speakers confirmed, if any.
- July* Weeder's Retreat. Attend Executive Board meeting.
- October* Attend Executive Board meeting. Begin planning Agenda for the annual winter General Membership meeting in Boise. Make hotel meeting room, breakfast, and break arrangements. Prepare plaque for outgoing Chair (if applicable).
- December* Have tentative Agenda complete for winter meeting and speaker contacts made. Send to the Secretary-Treasurer or the Chair for mail out. As with the summer meeting, allow time for the State Weed Coordinator.

IAWCS SECRETARY-TREASURER - Position Description

This position shall:

1. Attend Executive Board and General Membership meetings
2. Be responsible for all financial matters of IAWCS, including but not limited to bookkeeping, payments, deposits, tracking expenditures, budgeting etc.
3. Correspond on behalf of IAWCS, as directed by the, Chair, Vice-Chair or Executive Board
4. Take and prepare minutes of IAWCS Executive Board and general membership meetings. Minutes shall be posted on the IAWCS website.
5. Track membership and dues paid.
6. Assist the Chair, Vice Chair, and Board members when needed.

Timeline for Duties:

- January* Assist Chair and Vice-Chair with upcoming IAWCS General Membership meeting in February in Boise. Prepare Treasurer's report to hand out at the meeting. Nominations for Bruce V. Nielsen Award should be decided by now. Check with previous two years' recipients – they are the committee to receive nominations and decide on who gets the award. Prepare appropriate plaques for this recipient (unless the nominating committee is taking care of it) and make sure the Vice-Chair is taking care of the plaque for the outgoing Chair (when applicable). These are paid for/reimbursed by the Association and will be presented at the February meeting.
- February* IAWCS general membership meeting held this month. May need to write check for meeting meal & room (don't forget to take the checkbook). Have sign-in sheets ready. Be prepared to remind people who have not yet paid dues; those not paid up do not get to vote. If summer camp-out meeting place has not yet been determined or reserved, time to do so.
- March* Follow up on any Counties which have not yet paid – final reminder for year. Prepare minutes of February meeting & send out with an Agenda for the April Executive Board meeting.
- April:* Executive Board meeting.
- July:* Assist Chair and Vice-Chair with any items for the Weeders Retreat meeting. Prepare minutes & Treasurer's Report to present at Retreat. This meeting moves around and will be held in Idaho Falls in 2002, in Region 1 (North Panhandle) in 2003, and in Region 2 (South Panhandle) in 2004.
- September* Mail out notices, Agenda, minutes, etc., for October Executive Board meeting.
- October* Attend Executive Board meeting. Mail out dues statements to Superintendents, and any additional information. Reminders to members for nominations for Bruce V. Nielsen award. Also, every other year, need nominations for Vice-Chair. Nominations need to be in by December 1st; selection committee for Bruce V. Nielsen award is the two previous year's recipients.

November Mail out reminder for nominations for Award & Vice-Chair (if applicable), dues, and any additional information – check with Chair and Vice-Chair about mailings may be able to combine with ones they have.

IAWCS EXECUTIVE BOARD MEMBER - Position Description

This position shall:

1. Attend Executive Board meetings. 50% of scheduled meetings must be attended to remain an Executive Board member. If unable to attend, have the Alternate attend in your absence.
2. Communicate ideas and views on noxious weed issues from the Region you represent at Executive Board meetings.
3. Make motions on issues and vote on motions at Executive Board meetings.
4. Assist the Chair, Vice-Chair and Secretary-Treasurer when needed.

Timeline for Duties:

February IAWCS annual winter meeting in Boise, which includes General Membership meeting and Executive Board meeting.

April Attend Executive Board meeting, generally to be held in Eastern Idaho, but may be held by teleconference.

July Attend Executive Board meeting at Weeder's Retreat.

October Attend Executive Board meeting, generally to be held in Northern Idaho, but may be held by teleconference.

APPENDIX 13.4

IAWCS POLICIES 1/28/2013

- I. These policies shall supersede and preempt any previous policies of IAWCS.
- II. Procedural changes within the by-laws may be made by the Executive Board without going through the General Membership each time. Changes, which are drastically different in procedure or direction for the Association, should be brought to the General Membership.
- III. The Award Committee for the Weed Superintendent of the Year shall be the previous 2-year recipients.
- IV. The Weed Superintendent of the Year shall be submitted to IWCA for consideration for the IWCA Hall of Fame
- V. Weed Superintendent Recognition for Years of Service.
 - 5 years – Certificate
 - 10 years – small plaque
 - 15 years – medium plaque
 - 20 years – large plaque
 - 25 years – framed certificate, and a \$25 Gift Card
 - 30 years – framed certificate, and a \$50 Gift Card
- VI. Meeting dates specifically defined for Executive Board meetings:
 - Winter - in conjunction with IWCA conference
 - Spring – Eastern Idaho
 - Summer - Move throughout the state
 - Fall –North Idaho
 - Suggested Rotation for the summer meeting – Region 1, Region 3, Region 5, Region 2, Region 4, and Region 6. Location may change at the discretion of the Executive Board.
- VII. The Secretary-Treasurer may spend up to \$100 for normal and incidental expenses without obtaining Executive Board or General Membership approval. These costs will need to be ratified at the next regular Executive Board Meeting.
- VIII. Chair person to review Weed Superintendent Handbook for changes as one of first duties of taking office & making suggestions for updates.
- IX. IAWCS financial assistance is granted for an IAWCS member to attend Leadership Idaho Agriculture in the amount of one half of the LIA tuition amount (only one person annually). Preference shall be given to Exec Board Members.
- X. IAWCS travel assistance is granted for members to attend Annual NAWMA meetings, Annual State Weed Conferences, or other Weed Conferences / Weed Meetings. Amount to be set by the Executive Board. Travel assistance must be requested prior to travel.

- XI. IAWCS Chair, or Designee, may use up to \$500 for travel expenses to promote IAWCS to State / Other Organizations (IAC, Legislature, Etc.). Expenses must be approved by the Executive Board prior to travel.
- XII. Persons requesting any reimbursement from IAWCS shall use the IAWCS Expense Report Form, and shall submit copies of any receipts or vouchers pertaining to the reimbursement. Reimbursements shall be approved by the Executive Board.
- XIII. If the Chair, or Vice-Chair is unable to serve as representative on boards, committees, etc. on behalf of IAWCS (i.e. IWCA Board, IWCC, etc.), then the executive board shall elect a member to represent IAWCS on such boards, committees, etc.
- XIV. IAWCS dues shall include lunch at the IAWCS annual meeting. One lunch for each paid dues. Other attendees will pay for the meal at IAWCS cost.
- XV. Upon written request from any dues paying member of IAWCS regarding a regulatory or enforcement action from a State or Federal Agency, the executive board will request all public information relating to the action from the agency via the Freedom of Information Act (FOIA). The executive board will review all information received and determine course of action. This review will take place during the next scheduled executive board meeting and be discussed in executive session, which will be closed to non executive board members.

These Policies were adopted at the IAWCS Executive Board Meeting on 1/28/13 in Boise Idaho by majority vote of members present

APPENDIX 13.5

County Weed Control Superintendent General Job Description

Job Title: Weed Control Superintendent **Status:** Full-time / Year Round
Classification: Non-Exempt **Department:** Weed Department
Reports to: County Commissioners

Mission

To oversee and perform a variety of duties related to the administration and operation of the County's noxious weed program as outline by Idaho Statute

General Duties and Responsibilities

- Examine all land under County jurisdiction to determine the presence of noxious weeds
- Compile data and reports as required by County Commissioners and Idaho State Department of Agriculture
- Report to the Board of County Commissioners or Weed Board on activities, plans, or progress on projected programs or activities
- Implement enforcement action in cases of non-compliance as outlined under statute
- Consult, advise, and provide direction on matters pertaining to the most effective and most practical methods of weed control
- Investigate or aid in the investigation and prosecution of any violation of the Noxious Weed Law
- Maintain and oversee department Budget
- Maintain a ISDA Professional Applicator License (Normally Law and Safety, Agriculture Herbicide and/or Ornamental Herbicide Categories See appendix XV
- Maintain a ISDA Dealers License (for selling pesticides outside of organization) see appendix XV
- Meet pesticide and recertification requirements as prescribed by ISDA
- Make recommendations regarding establishment of special management zones and/or cooperative weed management areas
- Participate on weed control advisory committees to develop and implement noxious weed control strategies for cooperative weed management areas and/or other projects
- Respond and investigate public and agency weed concerns
- Implement educational programs on Prevention, detection, control, and eradication (presentations)
- Develop and implement department policies and procedures, then coordinate with County Commissioners, advisory board, or CWMA Steering Committee
- Prepare weed management plans as needed
- Prepare pesticide application records and calculate associated costs
- Attend, organize, or participate in public meetings, conferences, and training seminars to maintain State Pesticide Licensing and obtain continuing education information

- Manage Pesticide inventory and usage
- Provide weed identification to the public as needed
- Perform chemical, mechanical, and/or biological weed treatments and/or coordinate treatments with commercial applicators
- Keep abreast of new invading species
- Coordinate weed control efforts with City, State, and Federal agencies
- Research property ownership as necessary
- Maintain application equipment and vehicles
- Supervise, train, and work with full-time and part-time employees to ensure all rules and regulations are properly followed; instruct and train personnel in the proper use of equipment, chemicals, and work methods; ensure safety of all workers through proper education
 - Conduct Employee Safety meetings on a regular basis
 - Conduct employee performance evaluation, hiring, and disciplinary procedures
 - Map weed infestations within the County
 - Conduct field demonstrations and participate in tours to show progress and/or application effectiveness
 - Assist the public with weed control and eradication programs
 - Publish and release information via media (radio, television, newspaper)
 - Comply with ISDA Pesticide Rules and Regulations
 - Work cooperatively with CWMA Steering Committees or County Advisory Board
 - Administrate Idaho Noxious Weed Free Forage and Straw Certification Program
 - Perform other duties as required

Qualifications

Educational background and/or supporting practical experience will be considered on a case-by-case basis. This includes credits or degrees in production agriculture or related fields, such as weed science, natural resource management, botany, horticulture, range science and/or five years experience in administration and/or weed control applications

- Experience in weed control and equipment
- Ability to identify weeds, crops, and other vegetation
- Ability to operate a computer and willing to obtain application skills related to geographical mapping
- Possess adequate writing skills
- Proficient in working with a diverse public and possess the ability to resolve conflict or calm angry people
- General understanding of state and federal laws pertaining to noxious weed control
- Knowledge of herbicides, rates, and other management techniques
- Knowledge of pesticide safety, application techniques, environmental impacts, and state and federal regulations
- Have or willing to obtain a ISDA Professional Applicators License in applicable categories such as Law and Safety, Agriculture herbicide, Aquatics, and Ornamental Herbicide
- Ability to meet people, be decisive, and speak publicly

- Ability to supervise and train personnel
- Able to learn and keep abreast of new information
- Possess a valid driver's license
- Climbing, balancing, stooping, kneeling, crouching, standing, reaching, sitting, pushing, pulling, walking, lifting (50 lbs.), talking and hearing
- Ability to remember
- Ability to read
- Requires periodic travel outdoors
- Ability to work in adverse weather conditions

*Reasonable accommodations
may be made to enable
individuals with disabilities to
perform essential functions of
the position.*

APPENDIX 13.6

North American Weed Management Association

What does NAWMA do?

NAWMA is a network of public and private professional weed managers who are involved in implementing any phase of a county, municipal, district, and state, provincial or federal noxious weed law. There are active state weed and roadside vegetation associations and societies devoted to weed science organizations. Other organizations focus on federal legislation and others are comprised of federal and state middle level managers.

Until NAWMA, there was no North American organization serving the educational, professional improvement, and networking needs of the on-the-ground, local vegetation or exotic plant manager.

NAWMA is comprised of county weed managers, and local area managers in the state, federal, and provincial land agencies such as the Forest Service, National Biological Survey, and the Bureau of Land Management.

By joining NAWMA, you gain access to a wealth of information and experience from people who manage noxious and exotic vegetation programs on a day-to-day basis.

In NAWMA, you become a part of a North American-wide network of people involved in preserving our natural resources from the threat of invasive noxious weeds and non-native exotic vegetation.

What are NAWMA's Objectives?

- To foster cooperation among noxious weed managers, throughout North America in the exchange of information, education, training, weed management practices, programs, and technologies.

- To empower North American noxious weed managers by improving their professionalism and the image of noxious weed managers.

- To assist in the development of uniform international, national, provincial, and state weed management legislation and regulation.

- To foster cooperation and involvement in noxious weed management among federal, provincial, state, municipal district, county, and private land managers throughout North America.

- To coordinate enforcement in noxious weed management among federal, provincial, state, municipal, district, county, and private land managers.

- To promote the funding of weed management projects, research, and programs that are international, national, or regional in scope and effectiveness.

NAWMA Activities:

- To provide education and professional improvement, NAWMA conducts an annual Conference & Trade Show presenting a forum for national speakers and enlightenment on

state issues, and field tours to inform our members on local issues. Advances in the technology and tools of weed management are showcased at our Conference and Trade Show and proceedings are published for all topics presented.

To provide regulatory direction, NAWMA is represented on the Intermountain Noxious Weed Advisory Council (INWAC). A NAWMA member joins INWAC annually for its trip to Washington D.C. to inform and educate national leaders on weed issues.

To promote professional improvement and networking, NAWMA provides speakers and topics to help managers improve their efficiency at our Conference & Trade Show and publishes the quarterly newsletter NAWMAlogue.

To increase environmental awareness of the negative impacts of noxious weeds and exotic plants, NAWMA funds educational materials such as a weed ID booklet encompassing the 52 weeds on the Regional Weed Free Forage Certification Program list of invasive plants. NAWMA is the lead organization in the Weed Free Forage Program, providing leadership, central administration, budgeting and accounting, and promotional and educational direction for the program.

APPENDIX 13.7

CALIBRATION TECHNIQUES

A. Boom and Boomless Sprayers

1 Make sure nozzle is in proper working condition – if damaged or worn replace with new one. If using tee-jet type nozzle make sure you replace all nozzles not just one or two . . .

2 Select proper pressure – usually should be 25-30 p.s.i

3 Spray pre-measured distance* (i.e. 200 feet) at a predetermined rate of speed and note the following:

- A - Spray pattern width – measure distance not including the distance required for overlap of swaths i.e. BoomBusters less 18* on both ends.
- B - Notice spray pattern and notice if the pattern is consistent across entire swath width, also notice the drying pattern with will determine if more liquid has been applied in certain areas. If this is noticeable then nozzles are worn and need replaced
- C - Note the time in seconds that it takes for the sprayer to spray pre-measured distance.

4 After the measured distance has been traveled over a given time (MPH) one needs to collect the water out of the nozzles for the same amount of time that it took the sprayer to cover the measured distance. Thus getting a liquid per given area or computed as Gallon per acre.

5 The following formula will determine the rate per acre of total solution** that your sprayer will spray out at your determined speed and pressure.

South width X distance traveled divided by 43,560 (sq.ft. in an acre)=
area covered.

Volume recovered during measured time = oz per time or Gallon per Minute

Mile per Hour (MPH) can be determined by taking seconds traveled over given distance times 0.682 (3600 seconds in one hour divided by 5280 feet in one mile).

Gallon per Acre = amount collected (gallons) divided by area covered in acres

EXAMPLE

Distance = 200 ft	5.5 gallon Divided by 0.09 = 61GPA
Swath = 20 ft	
Time traveled 200 ft. = 30 seconds	200 ft x0.682 Divided by 30 sec = 4.54 mph
200 X 20 = 4000 ft. sq = 0.09 acre	
amount collected for 30 seconds = 5.5 gallons	

* Travel should be in the same soil conditions that actual applications are going to take place

** Total solutions include water, chemical, and any additives

WORK SHEET FOR SPRAYER CALIBRATION

Distance Traveled _____ feet (A)
 $A \times B / 43.560 =$ _____ acre (C)
 Swath Width _____ feet (B)
 Seconds Traveled _____ seconds (D)
 Amount Caught in _____ gallons (E)
 determined sec.
 $A \times 0.682 / D$ _____ MPH
 $E / C =$ _____ GPA
 Conversions 1 gallon = 128 oz
 1 MPH = 5280 feet
 1 hour = 3600 seconds
 $3600\text{sec} / 5280\text{ft} = 0.682$

WORK SHEET FOR SPRAYER CALIBRATIONS

Distance Traveled _____ feet (A)
 Swath Width _____ feet (B)
 Seconds Traveled _____ seconds (D)
 Amount Caught in _____ gallons (E)
 determined sec.
 $A \times 0.682 / D =$ _____ MPH
 $E / C =$ _____ GPA
 Conversions 1 gallon = 128 oz
 1 mile = 5280ft
 1 hour = 3600 seconds
 $3600\text{sec} / 5280\text{ft} = 0.682$

BACKPACK SPRAYERS

Calibration of Backpack and Canister Sprayers.

Always make sure the sprayer is empty and clean prior to calibration. Cleaning and neutralizing previous pesticide can be accomplished by filling sprayer ¼ full of water and adding 4 ounces of household chloride. Shake well and spray out over undesired area. **DO NOT DISPOSE INTO WATER OR SEWER SYSTEM.** Rinse with clean water and you are ready for calibration.

Calibration should be performed with clean water.

1. Measure an area of 31.5 X 31.5 feet. This will equal 1000 ft².
2. Fill sprayer with clean water.
3. Spray pre-measured area. Keep track of the following:
 - a. Time that it takes to uniformly apply water.
 - b. Pattern of spraying, make sure that spray patterns overlap.
4. Spray into container for the same amount of time that it took to uniformly spray pre-measured area.
5. Measure amount of liquid caught into container.
6. Use the following formulas to determine rate of application:

$$\frac{\text{AREA (length X width)} \div 43,560}{1000\text{ft}^2 \div 43,560} = \frac{\text{_____ acre (A)}}{0.02295 \text{ acre}}$$

$$\frac{\text{Seconds Traveled}}{\text{_____ seconds (B)}}$$

$$\frac{\text{Amount Caught}}{\text{C _____ Gallons (C)}} = \frac{\text{_____ GALLONS/ACRE}}{\frac{128 \text{ ounces} = 1 \text{ gallon}}{\text{_____ GALLONS/ACRE}}}$$

To figure how much pesticide to add to your sprayer, take sprayer size ÷ gal/ac, then take that figure and multiply by recommended rate on pesticide label.

**Example: measured gal/ac = 70, and pesticide label suggest 1 qt/acre
3 gallon backpack ÷ 70 = 0.0429 X 32 ounces = 1.37 ounces or 8 teaspoons of pesticide**

**1.0 gallon = 128 ounces = 4 quarts = 8 pints = 16 cups 1.0 cup = 8 ounces
1.0 ounce = 2 tablespoons = 6 teaspoons, one tablespoon = 3 teaspoons or 15 milliliters**

With most pesticides *spray until vegetation is wet*, NOT until product is running off leaves.

Pesticides are label according to manufactures years of research, adding more pesticide to tank to get a BETTER kill will do nothing more than spend your money. With herbicides, a plant will only absorb as much material as needed to cause damage, that plant then shuts down and will not absorb any additional material. That additional material will only go onto the ground and be wasted.

ALWAYS READ AND FOLLOW MANUFACTURES LABELLED RECOMMENDATIONS for additional information seek professional help; we are all here to keep our environment clean and safe to all forms of life.

APPENDIX 13.8

EPA (R10) Pesticide General Permit Best Management Practices When Applying Pesticides Between the High Water Mark and the Water's Edge in NMFS Listed Resource's of Concern (April 30, 2012)

Best Management Practices (BMPs):

- Do not apply when it is raining or when there is a 75% or greater possibility of rain forecast for the 24-hour period after an application ends. Check the following website: www.noaa.gov for detailed weather forecasts.
- Use the lowest application rate to effectively control the species.
- Treat the minimum area necessary to effectively control the species.
- Do not apply with the spray nozzle aimed towards water.
- Do not spray when wind is blowing towards water.
- Do not spray when wind gusts exceed 8 mph.
- Use a non-hazardous indicator dye to prevent duplicative treatment of an area.
- Apply after the river/creek has crested and the water levels are dropping to ensure waters do not wash pesticides back into the water body.
- Spot spray using the lowest pressure and largest droplet feasible to effectively make the application without having the product run off from the plant to the ground.
- Calibrate spray equipment to ensure proper application rates.
- Drafting equipment for filling spray tanks must be equipped with back siphoning prevention devices.
- Equipment used for transportation, storage or application of chemicals should be maintained in a leak proof condition.
- Do not mix chemicals within 100 feet of surface water unless using a secondary containment system.
- Do not clean equipment within 100 feet of surface water.
- Store only the amount of pesticides needed for anticipated daily use in vehicles parked within 100 feet of surface water.
- When feasible,
 - Direct inject (e.g. basal stem treatment) or use hand application methods instead of machine applications,
 - Prioritize weed species within the waters of the US in regards to treatment,
 - Find and eradicate new and invasive weed species as soon as possible, and

Utilize biological control agents if approved, available and effective on target species

APPENDIX 13.9

**PRE-FIRE PLAN FOR AGRICULTURAL
CHEMICAL AND/OR FERTILIZER FACILITY**

NAME: _____

LOCATION (physical address): _____

TELEPHONE: _____

24 HOUR EMERGENCY TELEPHONE: _____ DAY _____ NIGHT _____

FACILITY MANAGER: _____

ASST. MANAGER: _____

CHEMTREC (CHEMICAL TRANSPORTATION EMERGENCY CENTER) 800-424-9300

EMERGENCY SERVICES TELEPHONE NUMBERS

FIRE DEPARTMENT _____

POLICE DEPARTMENT _____

STATE PATROL _____ (800) 233-1212 _____

COUNTY SHERIFF _____

AMBULANCE _____

HOSPITAL _____

POISON CONTROL _____ (800) 632-8000 _____

LOCAL EMERGENCY PLANNING COMMITTEE _____ (208) 455-3032 _____

STATE EMERGENCY PLANNING COMISSION _____ Within Idaho _____ (800) 632-8000

_____ Outside Idaho _____ (208) 327-7422

RAILROAD _____

24 HR IMMEDIATE NOTIFICATION TELEPHONE NUMBERS	DAY	NIGHT
	SIGNATURE	DATE
FACILITY MANAGER		
EMERGENCY SERVICES OFFICIAL		
NAME OF EMERGENCY SERVICE		
COMPLETED BY		

ADDITIONAL NOTES ON FACILITY SKETCH:

1. Primary Evacuation Point (EP #1)

Secondary Evacuation Point (EP #2)
2. What are the locations of chemical or flammable material?
3. Any unusual access points to note?
4. What doors are locked and how can access be granted?
5. What are your smoke and fire alarms?

	Date	Next scheduled plan review or update	Facility Representative	Fire Department Representative
Actual date of Annual				
Follow-up				

FIRES

FIRE PREPAREDNESS

Local fire department should visit the facility at least annually. They should be thoroughly familiar with the following:

- Locations of hydrants, normal and alternate access roads, gates, fences, etc.
- Surrounding building occupancies and land use
- Precautions and tactics for fighting garden and agricultural chemical fires
- Day and night telephone numbers of the facility operators, physician familiar with the products, and the manufacturers of the products
- Means of controlling drainage at the adjacent to the facility
- Symptoms of pesticide poisoning
- What to do in case of contact with toxic chemicals
- Use of self-contained breathing apparatus (Air Paks)
- Means of ventilating the warehouse

POST-FIRE CLEAN-UP

- **FIRE FIGHTING PERSONNEL and EQUIPMENT** Remove protective clothing upon leaving site and impound with contaminated fire fighting equipment.
- Upon return to the fire station, shower and shampoo thoroughly with soap and water, change into clean clothing and wash inner clothing with detergent.
- Watch for signs and symptoms of pesticide poisoning.
- Put on coveralls and rubber or neoprene gloves and decontaminate protective clothing and equipment using a strong detergent solution. Decontaminate in an isolated area.
- Contaminated cotton-jacketed hose may have to be destroyed; most are weakened by strong detergents.
- **FIRE SITE** Isolate and secure scene to keep people away; waste and run-off may be toxic.
- Contact public health department for disposal instructions and approval.
- Handle waste and run-off same as for a product spill – Personal protective equipment is required
- If the amount of waste and/or run-off is significant or you have any doubts, contact the manufacturer

IMPORTANT NOTE

Should this facility become involved in fire, the commanding officer at the scene should be in position to let the facility burn if he determines that continued water application: 1) will result in extensive contaminated water run-off or, 2) could result in incomplete combustion of chemicals, resulting in a release of toxic compounds in the air

PERSONAL PROTECTIVE EQUIPMENT AVAILABLE:

	FIRE DEPT	ON SITE	OTHER - LOCATION & PHONE	
Self-contained breathing apparatus:	_____	_____	_____	_____
Spare compressed breathing air bottles:	_____	_____	_____	_____
Rubber or neoprene boots:	_____	_____	_____	_____
Rubber gloves:	_____	_____	_____	_____
Lined turnout coats and pants:	_____	_____	_____	_____
Face shield or similar protection:	_____	_____	_____	_____

Additional Protective Equipment at Facility:

LOCATION OF EMERGENCY EQUIPMENT & SUPPLIES: (Available 24 hours a day. Include phone numbers.)

Front-end loaders

Bulldozers

Dump trucks

Portable water pumps

Street Barriers

Sand bags

Other

LOCATION & TYPES OF WATER SUPPLIES: (Hydrants, ponds, irrigation canals, fresh or salt water, etc. Verify hydrant thread compatibility and water pressure and flow rates.)

SURROUNDING OCCUPANCIES & LAND USE:

NORTH:

SCHOOLS

HOSPITALS

NURSING HOMES

MEDICAL CLINICS

SOUTH:

SCHOOLS

HOSPITALS

NURSING HOMES

MEDICAL CLINICS

EAST: _____

SCHOOLS _____

HOSPITALS _____

NURSING HOMES _____

MEDICAL CLINICS _____

WEST: _____

SCHOOLS _____

HOSPITALS _____

NURSING HOMES _____

MEDICAL CLINICS _____

ADDITIONAL COMMENTS:

SITE RUN-OFF CONTROL: (Draw a sketch showing drainage at and from site, with all nearby ditches, underground drains, creeks, rivers, etc. Use the Legend below to label the sketch.)

LEGEND

Drainage Ditch	DD	Stream	S
Yard Drain	YD	River	R
Street Drain	SD	Lake	L
Culverts	C	Well	W
Dry Well	DW	Area Drainage	----- >
Manhole	M	Irrigation Canal	IC

APPENDIX 13.10

PESTICIDE INJURY INVESTIGATION FORM

Date investigated _____

CLAIMANT:

Name: First _____ Middle Initial _____ Last _____

Address: _____

City _____ State _____ Zip _____

Phone: Home _____ Work: _____ Cell: _____

APPLICATOR:

Name: First _____ Middle Initial _____ Last _____

Address: _____

City _____ State _____ Zip _____

Phone: Home _____ Work: _____ Cell: _____

Applicator License Number: _____

WITNESS:

Name: First _____ Middle Initial _____ Last _____

Address: _____

City _____ State _____ Zip _____

Phone: Home _____ Work: _____ Cell: _____

BRIEF DESCRIPTION OF THE COMPLAINT:

Date of Incident: _____

Location of Incident: _____

Property Damaged: _____

Complaint: _____

Date injury first noticed _____

CHEMICAL APPLICATIONS

Herbicide(s) _____ Formulation(s) _____ Date applied _____
Rate _____ Acres treated _____ Adjuvant used _____ Application equipment _____
Application method _____ Boom width _____ Nozzle size and type _____

OTHER PESTICIDES APPLIED (Insecticides, Fungicides, etc.)

Pesticide(s) _____ Formulation(s) _____ Date applied _____
Rate _____ Acres treated _____ Adjuvant used _____

OTHER PEST PROBLEMS IDENTIFIED

Insects _____ Diseases _____ Nematodes _____

FERTILIZER APPLIED

Type and analysis applied _____ Application rate _____
Application date _____ Application method _____

FIELD HISTORY

Previous crop _____ Tillage method _____
Herbicides used _____ Other pesticides _____
Fertility _____ Irrigation _____
Other information _____

WEATHER/SOIL INFORMATION

Temperature before application _____ During _____ After _____
Rainfall before application _____ During _____ After _____
Wind speed at application _____ Direction _____
Irrigation: Before application _____ After _____
Unusual temperature changes _____
Soil texture _____ Organic matter _____

SOIL OR VEGETATION SAMPLE

Was a sample collected _____ what is the sample _____

Date _____ Time _____ Sample Id _____

How the sample was collected _____

What are you going to do with the sample _____

OBSERVATIONS

Injury pattern in field and sample location (describe here and sketch below) _____

North ↑

Sequence of injury development in field and on plants _____

Description of injury symptoms _____

Description of pictures taken _____

APPENDIX 13.11

Conversions and Formulas

Capacity Measure Liquid	
Fluid ounce = 2 tablespoons	Cup = 8 fl. ounces
Fluid ounce = 6 teaspoons	Cup = 0.5 pint
Fluid ounce = 29.57 milliliters	Cup = 236.5 milliliters
Fluid ounce = 1.805 cu. Inches	Cup = 0.25 quart
	Cup = 16 tablespoons
	Cup = 48 teaspoons
Teaspoon = 5 milliliters	Tablespoon = 3 teaspoons
Teaspoon = 0.17 fl. Ounce	Tablespoon = 15 milliliters
Teaspoon = 60 drops	Tablespoon = 0.5 fl. Ounces
Pint = 2 cups	Quart = 32 fl. Ounces
Pint = 16 fl. Ounces	Quart = 2 pints
Pint = 473 milliliters	Quart = 57.75 cu inches
Pint = 28.87 cu in	Quart = 946 milliliters
Pint = 0.125 gallon	Quart = 0.25 gallon
Pint = 0.473 liter	Quart = 0.94 liter
Pint = 32 table spoons	
Gallon = 128 fl. Ounces	Liter = 2.1 pints (liq)
Gallon = 231 cu. Inches	Liter = 1.06 qts. (liq)
Gallon = 3.785 milliliters	Liter = 1000 cu. Cm.
Gallon = 0.83 brit. Gallon	Cu ft. = 29.22 liq. Qt.

1 acre = 43,560 square feet = 4,840 square yards = 0.0016 square miles (US statute)

1 acre = 0.4047 hectares = 4,047 square meters

1 hectare = 10,000 square meters = 2.47 acres

1 feddan = 0.42 hectares = 1.038 acres

1 meter = 100 centimeters = 3.28 feet = 39.37 inches

1 foot = 12 inches = 30.48 centimeters

1 inch = 2.54 centimeters

1 square mile = (US statute) = 640 acres = 258.9 hectares

1 pound = 0.45 kilograms = 16 ounces = 454 grams

1 kilogram = 2.2 pounds = 1,000 grams = 35.2 ounces

1 ounce = 28.35 grams

1 gram = 0.035 ounces = 1,000 milligrams = 0.0022 pounds

1 hundred weight (cwt.) = 100 pounds = 45.4 kilograms

1 short ton = 20 cwt. = 2000 pounds

1 metric ton = 1000 kilograms = 2205 pounds

1 quintal = 100 kilograms = 220 pounds

1 grain (apothecaries) = 0.065 grams

Multiply	By	To Get
Acres	43,560	Square feet
Acres	4,840	Square yards
Bushels	2,150.42	Cubic inches
Bushels	4	Pecks
Bushels	64	Pints
Bushels	32	Quarts
Centimeters	0.3937	Inches
Centimeters	0.01	Meters
Centimeters	10	Milliliters
Cubic feet	1,728	Cubic Inches
Cubic feet	0.03704	Cubic Yards
Cubic feet	7.4805	Gallons
Cubic feet	59.84	Pints (liquid)
Cubic feet	29.92	Quarts (liquid)
Cubic inches	16.39	Cubic centimeters
Cubic meters	1,000,000	Cubic centimeters
Cubic meters	35.31	Cubic feet
Cubic meters	61,023	Cubic inches
Cubic meters	1.308	Cubic yards
Cubic meters	264.2	Gallons
Cubic meters	2,113	Pints (liquid)
Cubic meters	1,057	Quarts (liquid)
Cubic Yards	27	Cubic feet
Cubic Yards	46,656	Cubic inches
Cubic Yards	0.7646	Cubic meters
Cubic Yards	202	Gallons
Cubic Yards	1,616	Pints (liquid)
Cubic Yards	807.9	Quarts (liquid)
Feet	30.48	Centimeters
Feet	12	Inches
Feet	0.3048	Meters
Feet	1/3 or 0.33333	Yards
Feet per minute	0.01667	Feet per second
Feet per minute	0.01136	Miles per hour
Gallons	3,785	Cubic centimeters
Gallons	0.1337	Cubic feet
Gallons	231	Cubic inches
Gallons	128	Ounces (lid.)
Gallons	8	Pints (liq.)
Gallons	4	Quarts (liq.)
Gallons of water	8.3453	Pounds of water
Grams	15.43	Grains
Grams	0.001	Kilograms
Grams	1,000	Milligrams
Grams	0.0353	Ounces
Grams per liter	1,000	Parts per million
Grains	0.0648	Grams
Inches	2.54	Centimeters
Inches	0.08333	Feet

Inches	0.02778	Yards
Multiply	By	To Get
Kilograms	1,000	Grams
Kilograms	2.205	Pounds
Kilometers	3,281	Feet
Kilometers	1,000	Meters
Kilometers	0.6214	Miles
Kilometers	1,094	Yards
Liters	1,000	Cubic centimeters
Liters	0.0353	Cubic feet
Multiply	By	To Get
Liters	61.02	Cubic inches
Liters	0.001	Cubic meters
Liters	0.2642	Gallons
Liters	2.113	Pints (liq.)
Liters	1.057	Quarts (liq.)
Meters	100	Centimeters
Meters	3.281	Feet
Meters	39.37	Inches
Meters	0.001	Kilometers
Meters	1,000	Milliliters
Meters	1.094	Yards
Miles	5,280	Feet
Miles	320	Rods
Miles	1,760	Yards
Miles per hour	88	Feet per minute
Miles per hour	1.467	Feet per second
Miles per minute	88	Feet per second
Miles per minute	60	Miles per hour
Ounces (dry)	437.5	Grains
Ounces (dry)	28.3495	Grams
Ounces (dry)	0.0625	Pounds
Ounces (liquid)	1.805	Cubic inches
Ounces (liquid)	0.0078125	Gallons
Ounces (liquid)	29.573	Milliliters (cubic centimeters)
Ounces (liquid)	0.0625	Pints (liq.)
Ounces (liquid)	0.03125	Quarts (liq.)
Parts per million	0.0584	Grains per US gal
Parts per million	0.001	Grams per liter
Parts per million	8.345	Lbs. Per million gallons
Pecks	0.25	Bushels
Pecks	537.605	Cubic inches
Pecks	16	Pints (dry)
Pecks	8	Quarts (dry)
Pints (dry)	0.015625	Bushels
Pints (dry)	33.6003	Cubic inches
Pints (dry)	0.0625	Pecks
Pints (dry)	0.5	Quarts (dry)
Pints (liquid)	28.875	Cubic inches
Pints (liquid)	0.125	Gallons
Pints (liquid)	0.4732	Liters
Multiply	By	To Get
Pints (liquid)	16	Ounces (liq.)

Pints (liquid)	0.5	Quarts (liq.)
Pounds	7,000	Grains
Pounds	453.5924	Grams
Pounds	16	Ounces (liq.)
Pounds	0.0005	Tons
Pounds of water	0.01602	Cubic feet
Pounds of water	27.68	Cubic inches
Pounds of water	0.1198	Gallons
Quarts (dry)	0.03125	Bushels
Quarts (dry)	67.20	Cubic inches
Quarts (dry)	0.125	Pecks
Quarts (dry)	2	Pints (dry)
Quarts (liquid)	57.75	Cubic inches
Quarts (liquid)	0.25	Gallons
Quarts (liquid)	0.9463	Liters
Multiply	By	To Get
Quarts (liquid)	32	Ounces (liq.)
Quarts (liquid)	2	Pints (liq.)
Rods	16.5	Feet
Square feet	144	Square inches
Square feet	0.11111	Square yards
Square inches	0.00694	Square feet
Square miles	640	Acres
Square miles	28,878,400	Square feet
Square miles	3,097,600	Square yards
Square yards	0.0002066	Acres
Square yards	9	Square feet
Square yards	1,296	Square inches
Temperature (C)	1.8	Temperature (F)
Temperature (F)	5/9 or 0.5555	Temperature (C)
Ton	907.1849	Kilograms
Ton	32,000	Ounces
Ton	2,000	Pounds
Yards	3	Feet
Yards	36	Inches
Yards	0.9144	Meters
Yards	0.000568	Miles

APPENDIX 13.12

IDAHO STATE DEPARTMENT OF AGRICULTURE
CONTACT INFORMATION

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APPENDIX 13.13

**NOTICE TO ERADICATE AND CONTROL NOXIOUS WEEDS
STATE OF IDAHO**

By authority of the Idaho Noxious Weed Law, Title 22, Chapter 24, Idaho Code, notice is hereby given to:

ADDRESS: _____

To control the following noxious weed species: _____

Real Property Number: _____

These weeds must be treated **no later than** (date): _____

Method of Treatment may consist of: _____

Other methods of treatment may be approved by the control authority, provided that they are legal; consistent with authoritatively accepted treatment principles for the weed; and are properly executed by the landowner.

Upon completion of the treatment, **the landowner** is requested to notify the following county official as to the date, time, and method of treatment.

_____	_____
County Official	Date

COMPLIANCE

If a landowner fails to comply with this notice the County has the authority to "...have proper control methods used on such land, including necessary destruction of crops... The cost of any such control shall be at the expense of the landowner...if unpaid for sixty days or longer the amount of such expense shall become a lien upon the property; and thereafter the lien shall be subject to collection by the county by sale of the property in the same manner as for delinquent taxes." (Portion of Section 22-2405 (4), Idaho Code. In addition, failure to comply could result in a misdemeanor prosecution.

APPEAL

- 22-2408. LANDOWNER AND CITIZEN POWERS.. (1) If any person shall be dissatisfied with the amount of any charge made against it by a county control authority for control work or for the purchase of materials or use of equipment, he may, within thirty (30) days after being advised of the amount of the charge, file a protest with the director.
- (2) If any person shall be dissatisfied with the control measures used or the manner in which control is conducted upon his property, he may, within thirty (30) days file a protest with the director.
 - (3) Any person served with an individual notice may, within two (2) days of receipt of the notice, appeal to the board of county commissioners. A hearing shall be set by the board of county commissioners within five (5) days.
 - (4) Other than the procedures specifically set out in this chapter, procedures for hearings thereon and appeals pertaining to this chapter shall be as provided in chapter 52, title 67, Idaho Code.