



THE DIRT ON NOXIOUS WEEDS

~GUEST FEATURE~

What sends Colorado's children to hospitals annually with severe allergic reactions, destroys native plant communities and the wildlife they support, reduces active and passive recreational opportunities, slows local and state economies, and increases the frequency and severity of wildfires? If you glanced at the title for this article, then you probably guessed "noxious weeds" correctly.

In Colorado, the term "noxious weed" is a legal definition applied to a plant species that is not indigenous to Colorado and meets at least one of several criteria:

- (a) Is detrimental to or aggressively invades economic crops or native plant communities;
- (b) Is poisonous to livestock;
- (c) Is a carrier of detrimental insects, diseases or parasites;
- (d) Is detrimental to the environmentally sound management of natural or agricultural ecosystems.

So, the fundamental characteristics that differentiate noxious weeds from any other plants are

that they are non-native to Colorado, cause harm to our society's values and spread rapidly from their point of origin (either intentional cultivation or accidental introduction).

While the impacts caused by such species are well documented, and almost every one has had personal experience with the damage caused by species like field bindweed, Canada thistle or myrtle spurge, much less is known about how and why these species become aggressive and invasive.

It is generally presumed that once these species are imported from other continents (primarily Europe and Asia), they leave behind the factors, such as disease and predators, that normally constrain the reproductive capacity and success of any given species. Free from the natural bonds that keep native plant species in a predictable balance in our North American communities and ecosystems, noxious weeds grow rapidly and spread. These species multiply quickly to displace native species, alter fire and hydrologic cycles upon which we depend, and introduce new costs to the production of our foods



Colorado Department
of Public Health
and Environment

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From the Unit Leader

Time Flies! And soon leaves will be flying also. But before you know it, new sprouts of spring will be leaping forth. (I tend to think in such leaps of season as I age.) Our feature article will assist you in preparing for the new "weed season" to come. Such expectations! Such a challenge!

Just to reinforce Eric's article, the requirements for weed control are for all landowners, whether the landowner is a solid waste facility or not. The weed control requirements are established by the county or municipality for their respective jurisdiction. They may differ from one jurisdiction to another.

Landowners should contact their local weed supervisor to determine what species they are required to manage, as well as any additional regulations that may pertain to them. A list of weed supervisors may be found at <http://www.ag.state.co.us/DPI/weeds/countycontact.pdf>.

Thank you, Eric, for sharing your knowledge with the solid waste audience.

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Weeds

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and fibers.

Conservative figures indicate that yellow star thistle, a noxious weed just arriving in Colorado, occupies 5-10 percent of California's land mass. Spotted knapweed, a more common noxious weed in our state, occupies about four million acres in Montana and has dominated virtually every field, meadow and grassland in the western half of that state. These are just two of the 87 recognized noxious weed species in Colorado.

Increasingly, local communities in Colorado are developing publicly-funded programs to manage noxious weeds with the hopes of preventing, or at least mitigating, the damage that these species can and have caused in Colorado and the West. By law, our state recommends the application of an integrated pest management philosophy that involves the planning and implementation of a coordinated program utilizing a variety of management techniques (biological, chemical, cultural, and mechanical) alone,



or in combination, to manage noxious weeds in a safe, practical, and cost-effective manner.

As you might guess, the by-product of many mechanical efforts such as hand-pulling and cutting is a lot of leftover plant material that must be disposed of, particularly when a heavily infested area is being managed. Dealing with this material can be very simple or rather cumbersome. To facilitate the proper disposal of this by-product of our weed management efforts, some suggestions and tips are listed below for dealing with plant materials:

- Weed early and weed often – by cutting or hand-pulling the plant before it has flowered, seed production can be prevented. Consequently, any such material can be composted or allowed to dry in the sun without fear of spreading weed seeds.
- Refrain from composting seed-laden or flowering plants. Pollination and seed

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From the Unit Leader

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By the time you read this note, the Division will be issuing draft regulations for public comment regarding the Hazardous Substance Response Fund (HSRF), fondly known as the "Landfill Tipping Fee." The regulations set forth criteria for financial audits of facilities that collect the fee, use of the fee by designated sites under the law for Superfund activities. They also establish the long used Equivalent Rate Structure (ERS) methodology in rule.

A work session will be held to take public comment prior to beginning any formal Board of Health rulemaking. All those on our mailing list will be notified separately of the date of the work session and subsequent happenings. We will also make the draft material available on our homepage at <http://www.cdph.state.co.us/hm>. You may contact me at 303/692-3445 or Jeff Deckler (regarding the Superfund use portion of the rule) at 303/692-3387 if

you have questions.

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Does It Glow? Probably not. However the term radiation often does get people excited, and often unnecessarily so. It is not unusual for a solid waste facility to have to address the issue of something radioactive. Most of the time it is in diapers from a cancer patient who has received radioactive medicine, a piece of rock from a rock collection, ceramic tile with a radioactive element in the glaze, naturally occurring soil that has some native radioactive element as part of its make-up or pipe with mineral scale build-up. To better work with facilities on this issue, the Laboratory and Radiation Services (LARS) Division has drafted a proposed guidance document to assist in handling these materials. You may contact Phil Egidi of that Division at 303/692-3083 to obtain a draft or offer comments.

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production can occur quickly – anyone who has removed dandelion flowers has noticed that they still mature to produce seed even when the flowerheads lie desiccating on the sidewalk. The majority of composting practices and processes often do not reach and maintain the temperatures needed to assure the destruction of all viable seeds.

- A number of county weed management programs have developed small, but helpful, facilities to burn any seed-laden materials, thus eliminating the spread of the seed and reducing the volume of the waste to something much more manageable.
- Flowerheads may be removed and bagged for landfill disposal while the majority of the plant material remains on site. However, this technique is only practical for a few species that produce either flowerstalks (e.g., purple loosestrife) or reasonably few flowers (e.g., musk thistle).
- Brush from larger noxious weeds, like tamarisk (salt-cedar) and Russian-olive, can be used marginally for firewood, chipped for mulch or arranged to provide wildlife habitat in specific circumstances.

Mechanical weed management efforts can result in voluminous amounts of plant material. Often it is acceptable to uproot it and leave it, provided that the plant hasn't flowered. Once flowering occurs, seed production becomes a very real threat that must result in the removal of the flowering plant materials from site for disposal – either through burning or landfill. As noted above, a number of techniques can be employed to prevent this necessity or reduce the volume of material that must be managed. But the key to successful weed management is persistence. So taking the time to weed early and often typically reduces the time and expense that must be devoted to addressing seed-laden plant materials.

As local governments, state and federal land management agencies and private landowners increase their efforts to manage noxious weeds, the volume of plant materials for disposal will also rise. Consider some of the suggestions for alternative disposal listed above, and don't hesitate to suggest them to your local weed management programs as possibilities for improvement.

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From the Unit Leader

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The Division has been working to revise the long-awaited recycling regulations. If you remember, there were two public work sessions held on this topic. Information obtained from these sessions and follow-up written comments have been used to modify the last draft. In-house review and editing have been taking place for some time. We plan another work session in mid to late fall regarding this topic. You will receive notice, and the document will be placed on our Division homepage. It has been difficult to craft language that addresses the variety of materials that may be recycled.

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The Division finished the installation, via the use of contractors, of a gas venting system under the authority granted the Division in the 2001 legislative session. Verification monitoring will be conducted for a short time. The results and details of the installation will be discussed in a future issue of the *Solid Waste News and Notes*. Suffice it to say that the landfill ceased operations in the late 1970s, is located in an urban area, and gas is at levels of concern.

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This Division continues to receive complaints from homeowners, neighbors and concerned individuals regarding "trashy property." Many of the complaints are much better handled at the local level. Not only is response apt to be quicker, but also the actual authority may be under a local land use ordinance or similar vehicle. Local governments should be everyone's first call when a complaint, such as a disgusting yard or similar happening, reaches the point where one can no longer endure it. Also, this Division, as well as others, must make priority decisions regarding the use of staff time. Local governments do have authority under the Solid Waste Act (C.R.S.30-20-100.5 *et seq.*) The Division will continue to rely on local governments to be the first line in responding to such complaints. We do not have the ability to respond in a few days on a low priority complaint that may come from any place in the state. Calling your city or county can give you a prompter response.

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MANAGING RESIDUAL WASTE FROM CLANDESTINE METH LABS

An explosion of clandestine methamphetamine laboratories has been a growing problem throughout Colorado and across the United States. In Colorado alone, the number of methamphetamine lab seizures reported by the Colorado Bureau of Investigation has increased dramatically over the past three years: 150 in 1999, 264 in 2000, and the number exceeded 400 in 2001. According to law enforcement experts, for every lab shut down, there are 10 still operating. Conservatively, more than 4,000 meth labs were operational last year in Colorado.

The Hazardous Materials and Waste Management Division of the Colorado Department of Public Health and Environment regularly receives questions regarding the cleanup and concerns associated with former meth labs. Many of these concerns have to do with the resulting conditions left from meth lab activities. Property owners want to know what to do once the meth lab has been closed and the chemical and equipment removed. Potential future occupants are concerned about their long-term health risks.

Landfill operators are looking for guidance to manage meth waste received at their facility. For a landfill operator, recognizing the common meth lab chemicals, equipment and by-products is essential to understanding the types of potential wastes that could end up at the landfill.

Although there are a number of methods used to produce this drug, the two most common methods currently found in Colorado include the Red Phosphorous (Red P) and Birch (Nazi). Common lab chemicals associated with these two methods include: acetone, paint thinner, iodine, red phosphorus, camp stove fuel (naphtha), starter fluid, muriatic acid, anhydrous ammonia (stored in propane tanks or coolers), lithium batteries, sodium hydroxide (lye), rock or table salt and ephedrine or pseudoephedrine.

Typical equipment used to manufacture meth includes: glass containers (cookware such as Pyrex or Corning ware), plastic or rubber tubing, funnels, coffee filters, hot plates, camp stoves, rubber gloves, plastic one-gallon gasoline containers and matches. By-products resulting from the Red P and Birch methods include: Phosphine gas (normally captured in trash bags), iodine compounds (producing

yellow staining on walls and ceilings) various used acids (hydriodic and phosphoric), residual unused chemicals and meth residues.

Typically, after a lab is seized by the law enforcement agency, the bulk of the lab-related debris, such as chemicals, equipment and containers, are removed by an environmental contractor. The removal, decontamination and cleanup of the remaining residual waste are the responsibility of the property owner. Residual contamination is left on surfaces of sinks, drains, ventilation systems and in absorbent materials such as drapes, drywall, carpets, furniture, etc.

Bulk or liquid chemicals and lab debris may be overlooked during the lab seizures and inadvertently left for the property owner to remove. Disposal of bulk or liquid chemicals at a municipal solid waste landfill is prohibited.

In general, residual contaminated meth waste sent to the landfill will consist of carpeting, furniture, drywall, clothing, mattresses and other stained or soiled materials.

Our position, and the opinion of other state solid waste programs, is residual contaminated material from a former meth lab is not considered hazardous. However, managing this waste stream at the facility should be done in a manner that minimizes contact by site personnel and citizens using the facility.

As an owner/operator, you may want to consider providing training for site personnel to recognize meth lab waste and amend the facility's Waste Characterization Plan to reflect this waste stream. As with any waste stream, the landfill owner/operator can request analytical testing prior to receipt or denying acceptance of a waste stream all

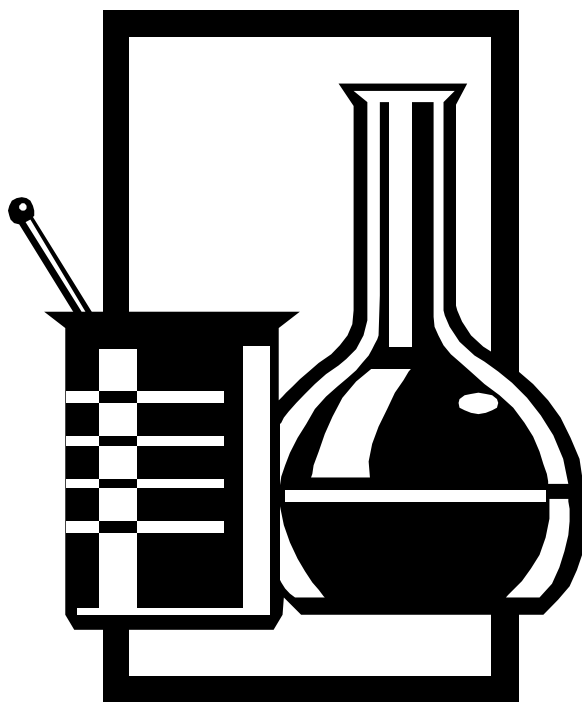
together.

Anyone cleaning up residual waste at a former meth lab should use caution and wear clothing to protect the skin, such as gloves, long sleeves and eye protection. Landfill personnel should also pay attention to these precautions when dealing with this waste stream.

To assist property owners and local health agencies in addressing what level of cleanup may be appropriate and proper disposal of impacted property, the Division is developing a guidance document outlining these issues.

—Roger Doak, Solid Waste Unit
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THE LIFE AND TIMES . . . STAFF BIOGRAPHIES

Ms. Julie Cotter

Julie Cotter is a relative newcomer to the Solid Waste (SW) Unit – but not a newcomer to Colorado. In fact, this writer has determined that there are many more natives than once thought. It seems they are all just tucked away working for CDPHE!

Julie is a Denver native, the oldest of four kids, living what she describes as the “outback of Denver rural life.” Following graduation from Ranum High School in 1965, Julie and her sister went to Washington, DC, in response to a flyer put out by the FBI. Passing the FBI’s “20-word spelling test” was a snap, and in no time, she and her sister - with the assistance of the J. Edgar Hoover administration - located and rented an apartment in a nearby Maryland community and set out to work as file clerks—then fingerprint technicians.

At 21, Julie found herself bored with the routine, and after only nine months, she worked for Blue Cross-Blue Shield, where she began a seven-year stint as one of the first insurance claim examiners for the newly-enacted Medicare program, where she reviewed Medicare claims and compared each request against the Blue Cross-Blue Shield government-issued fee schedules to determine coverage.

Again restlessness set in, and in 1973, Julie and a friend filled a couple of backpacks and headed to Europe for a four-month trip. She describes adventure as truly roughing sleeping both on the trains and in the train stations, with one highlight, and that was discovering the incredible sculpture and art, which into Julie’s interest in masterpieces, such that it continued to flourish upon her return to the States.

Julie’s four months in Europe did not end in DC, but rather back home in Denver where she once again was employed as a claims processor. It didn’t take another seven years, however, before Julie knew a more permanent change and career path would have to occur. It was this realization that led her to join the Navy in 1975 under the G.I. Bill, which enabled her to attend college following her service time.

The Navy provided a great number of opportunities over her four and a half year “tour,” including travel to such places as Orlando for basic training, Key West for “A” School, Norfolk for “C” School and electronics training, Wales for 18 months and the West Indies for 18 months.

One trip of particular note was when her company traveled to Moscow and Leningrad. Julie describes the Russian train rides as less than comfortable. The seats were like “going over wooden benches,” since the rails were laid out but not welded together. Ouch!

Returning to Denver in 1980, Julie entered the University of Colorado at Denver, majoring in Biology, graduating with a B.A. in 1984. Short term stints, first as an Auraria campus parking lot attendant, then port-of-entry operator, then as a personnel timekeeper with Social Services, which eventually landed Julie back at UCD to pursue a master’s degree in Environmental Science. Five years later, another degree in hand, Julie began her first job as a Colorado state employee at the Oil Inspection Section, where she started out as an oil inspector. Following a promotion, she provided underground storage tank remediation oversight – a position that was “different and sounded interesting.”

It was in 1999 that Julie saw the announcement for a position in the SW Unit (this author was jumping ship!) and applied for a transfer to CDPHE. After interviewing and waiting through a lengthy process, Julie finally got the call from Glenn and joined SW later that same year, being given complete responsibility of Baca County.

It didn’t take long, however, for Glenn to recognize her abilities, and in January of 2000, Julie picked up another 18 counties, including Costilla, Las Animas and other southeastern Colorado counties. Julie quickly began making the job her own, tailoring her inspection schedule and required forms to better fit the needs of the smaller landfill operations. Julie’s “user friendly” and understanding approach includes quarterly site visits/



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LIFE AND TIMES

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inspections and development of an “Operators Notebook” for each owner/operator, containing only the “what we need and what you need to do” information.

Asked what she enjoys most about her position, Julie quickly replies, “It’s the people and seeing parts of the state I would not otherwise know existed.”

An added bonus is being able to make her own schedule, allowing her to better coordinate her 19 county inspections so she is only out of the office two days per week.

Despite all the time on the road, Julie has found time to continue (and finally finish) remodeling her house – a 15-year adventure that turned her into a true Harriet Homeowner, skilled in construction and wiring.

What does the future hold for this industrious soul? The plan is retirement within the next two years, constructing a model train set, doing some more

traveling and getting to all those crafts she never started.

Julie’s response to the question of what one thing best describes you – Nontraditional. Not following “the” path, but rather bucking the norms. The result? A SW staff member who brought imagination, creativity and enthusiasm to what could have otherwise been a dull, routine job. I could not have left the counties in better hands – thanks Julie!

*—Brenda Lujan, Contributing Columnist
Extended Family and former Solid Waste
unit staff member*



Solid Waste News & Notes is published by the Solid Waste Unit of the Hazardous Materials and Waste Management Division, Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80246-1530.

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