



2021-2022

# Annual Report



**COLORADO**

**Solid & Hazardous  
Waste Commission**

Department of Public Health & Environment



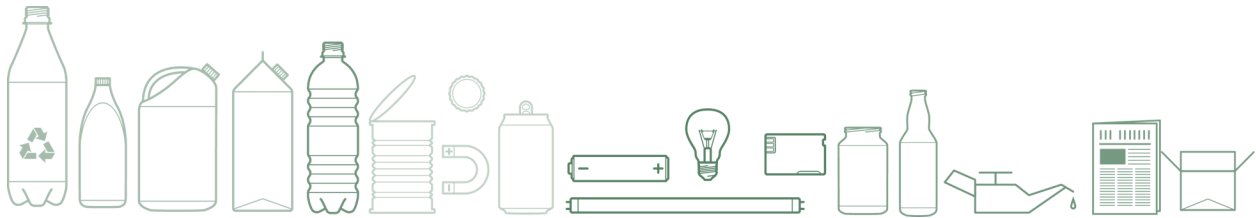
# History

In 1992, §25-15-302, C.R.S. established the Hazardous Waste Commission. In 2006, as a result of Senate Bill 06-171, the Hazardous Waste Commission was renamed the Solid and Hazardous Waste Commission and assumed rulemaking responsibilities over solid waste from the Board of Health. The commission, a type-1 agency located within the Colorado Department of Public Health and Environment but with authority independent of the executive director, has three primary duties:

- promulgates and adopts rules pertaining to solid and hazardous waste.
- sets fees and issues interpretive rules for solid and hazardous waste.
- hears appeals of administrative law judges’ determinations regarding the amounts of administrative penalties for hazardous waste matters.

The Solid and Hazardous Waste Commission comprises nine gubernatorial appointees: three members from industry, three members from the public at large and three members from government or academia. While commissioners are selected from these sectors, members take into account the interests of all Colorado citizens.

The federal government authorizes Colorado to implement a state hazardous waste program in lieu of a federal program as long as the state program meets certain criteria. One of the major tasks of the commission is to ensure the state hazardous waste rules are consistent with the U.S. Environmental Protection Agency’s requirements. This allows Colorado to retain its authorization and federal funding. The commission has the authority to adopt rules that are more stringent than the federal requirements and to list or define as a hazardous waste a waste not regulated by the federal rules. The commission must make a written finding, after public hearing and substantial evidence in the record, that the action is necessary to protect public health and environment. Additionally, six commissioners must vote for the action, and the commission is required to issue an opinion referring to and evaluating public health and environmental information and studies that form the basis of the rules. The rules regarding mining and mineral-processing waste, including exploration, mining, milling and smelting, and refining wastes, must be identical to the federal hazardous waste rules.



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## Members | Selected from regulated industry

### Mark Keyes

Mark Keyes is currently working as an environmental consultant focusing on providing services to the oil and gas industry. For more than 20 years Mr. Keyes has provided environmental services to industrial clients with a focus on solid and hazardous waste compliance and remediation of impacted soil and groundwater related historical operations and spills. Mr. Keyes has also worked in the environmental department of a Colorado based exploration and production oil and gas company. At the oil and gas company he was responsible for determining and setting the policy for all waste and water issues including looking for ways to reduce waste and promote recycling. He implemented a study designed to recycle the produced water generated during oil and gas production which would eliminate the need to dispose of the salt-rich produced water. He received a bachelor's degree in Geology from Michigan State University, and was a Certified Hazardous Waste Materials Manager.

### Christopher Gilbreath

Chris Gilbreath is a Colorado native and Colorado State University graduate with a Chemical Engineering Degree. Chris is currently the Senior Manager for Remediation and Reclamation for Tri-State Generation and Transmission Association. Tri-State is a not-for-profit wholesale power supplier to 43 member electric cooperatives in Colorado, Wyoming, Nebraska and New Mexico. Chris has worked in the environmental field in Colorado for over 30 years. From 1993-2000, Chris worked for the Colorado Department of Public Health and Environment, in the Hazardous Materials and Waste Management Division in the Federal Facilities Permitting Unit. From 2000-2005, Chris worked for Kaiser-Hill, L.L.C. responsible for the cleanup of the Rocky Flats Environmental Technology Site. As a Facility Manager, he managed the \$240 million decommissioning and demolition of Building 771/774 once deemed "the Nation's most dangerous facility." From 2005-2007, Chris worked for a small Service Disabled Veteran owned company providing waste management and demolition support in Louisiana following Hurricane Katrina. Chris joined Tri-State in 2007 and currently manages mine reclamation and remediation projects throughout Tri-State's four state region. Chris serves as the vice-chair of the commission.



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# Members | Selected from regulated industry

## Charles Adams

Mr. Adams is a Certified Professional Geologist with a bachelor's degree in Earth Sciences from Dartmouth College. He completed an Executive Management Program for Small Business Owners at Stanford University in 1993. He is currently retired after over 30 years of experience in assessment and remediation of hazardous waste in soil and groundwater and engineering geology, both as an environmental consultant and as a regulator, and nine years of experience in mining geology.



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## Members | Selected from academia and local government

### Elizabeth O'Connell Chapman, PhD

Elizabeth O'Connell Chapman has been an educator who focuses on helping people understand how human practices impact the environment for over 30 years. Elizabeth's work as an Environmental Health Administrator for the City of Aspen consists of directing research, influencing institutional programs, and creating policies for responsible waste management. Establishing and enforcing the rules surrounding solid and hazardous waste disposal with staff, businesses, and citizens is a daily component of her work with the City of Aspen. Compost collection within Pitkin County has doubled because of her efforts partnering with the local landfill. Her pioneering informal education efforts continue to expand waste reduction within the city. Elizabeth has used her research background to help the city determine the most effective methods of reducing and diverting waste. This research has led to programs which result in the increased use of reusable items and a decrease in use of disposable plastic items at public events, government offices, and local schools.

Elizabeth earned a bachelor's degree in biology from the University of Arkansas, and a master's degree in environmental studies from Antioch University New England. Elizabeth made waste reduction behaviors the focus of her dissertation work and graduated with a PhD in sustainability education from Prescott College.

Elizabeth is an active member of both Recycle Colorado and the Rocky Mountain Chapter of the Solid Waste Association of North America. Elizabeth currently serves as chair of the commission.

### Cathleen Hall

Cathy Hall is the Solid Waste Director for Pitkin County where she manages the integrated solid waste system which includes a landfill, recycling transfer operation, a year-round household hazardous waste and electronic waste collection program, a commercial-scale compost operation, and aggregate and soil recovery programs. Pitkin County is ranked second in waste diversion for counties in Colorado. Prior to working at Pitkin County, Cathy spent 20 years in the solid and hazardous waste consulting industry working on landfill gas to energy projects, and solid waste management planning. She currently serves as the past-president for the Colorado Solid Waste Association of North America (SWANA). She is a board-certified environmental scientist specializing in solid waste management through the Academy of Environmental Engineers and Scientists and is a Certified Manager of Landfill Operations and Manager of Compost Operations through SWANA. Cathy received a bachelor's degree in geology from Ohio State University and a master's in business administration from the University of Maryland.



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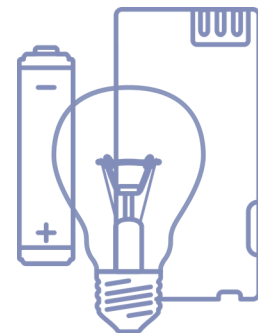
# Members | Selected from academia and local government

## Matthew Chrisp

Matt Chrisp is a Colorado native, having grown up in Logan county where he currently resides after raising two amazing children with his beautiful wife of 38-years in the Loveland area. In 2012, Matt moved back to Sterling and began his career in the solid waste industry as a heavy equipment operator at the Logan County Landfill where he has obtained the title of Landfill Supervisor and has been privileged to operate the landfill in an efficient, effective and compliant manner. Currently Matt is certified as a “Manager of Landfill Operations,” and is a member of Recycle Colorado. Matt has earned nearly 300-continuing education units specifically for solid waste topics and has been blessed to be involved in the policy/legislative/rule-making processes for solid waste management through working with multiple federal, state and local institutions through stakeholder meetings, testifying before committees and state officials and staying abreast of current solid waste events.

In his nine years as the with Logan County, Matt has worked closely with the Colorado Department of Public Health & Environment through many issues to include a “100-year-flood,” a “500-year-flood” and a 3500-acre brush fire that included multiple structures and left nearly 300 dead cattle, horses and wildlife.

It is Matt’s privilege to operate the Logan County Landfill in an effective, efficient and compliant manner and it is his vision that rural Colorado be more involved in waste diversion efforts that have been proven to reduce health & environmental risks and improve purity of natural resources in an effective and fiscally responsible manner while helping to create sustainable infrastructure that will reduce costs and allow all of our participation.



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## Members | Selected from the public-at-large

### Emily Freeman

Emily Freeman currently serves as a Policy Advisor - Circular Economy for the City of Boulder. She works to implement Boulder's construction and demolition waste ordinance by engaging with the public, private businesses and exploring end market development. Emily also manages Boulder's partnership with Repeater which supports reusable takeout containers for restaurants and meal delivery services. This partnership supports Boulder's climate action goal to eliminate single-use plastics. Previously, Emily served as the Environmental Management System, Program Manager for the City and County of Denver. She addressed the environmental impacts of Denver's internal operations to ensure regulatory requirements were aligned with and integrated into daily practices. Emily serves as the Chair of Colorado's Pollution Prevention Advisory Board's Assistance Committee to develop economic opportunities that increase Colorado's material diversion rate. Emily is also experienced in the private sector where she conducted waste diversion reports and analyzed data to maximize sustainable waste solutions across various sectors. She is a dedicated public servant who has a deep interest in ensuring the proper management of solid and hazardous waste throughout Colorado. Emily received her master's degree in Sustainability from Arizona State University.

### Ándrea Trujillo Guajardo

Ándrea Trujillo Guajardo is a dedicated and certified nonprofit, project management, engineering, and organizational development professional working toward environmental and social justice for communities in Colorado. She was the founder and president of Rural Project Services with offices in Antonito and Lakewood, Colorado. Responsible for providing access to capital projects in rural communities, she was responsible for bringing renewable distributed generation online. Her experience as an eighth generation resident of the San Luis Valley coupled with project management experience fueled her passion to improve health outcomes in rural Colorado by reducing built environmental stressors such as water contamination and energy generation. Ándrea founded and served on boards and committees including Conejos Clean Water, Zero Waste Services, the administrator appointment to the National Environmental Justice Advisory Council, and the governor appointment to the Solid and Hazardous Waste Commission. Her career started as an engineer in the private sector before she started nonprofit and philanthropic work in Colorado. She is currently a recent graduate of the University of Colorado at Denver's School of Public Affairs with a Master of Public Administration and serves as a Tribal Program Manager for the Environmental Protection Agency. She is a member of the nation's first Hispano labor union turned fraternal organization, Sociedad Protección Mutua de Trabajadores Unidos. She lives in Lakewood, Colorado with husband Marcel Guajardo, and two sons Javi and Migui.



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# Members | Selected from the public-at-large

## Cathryn Stewart, C.P.G., P.G.

Cathryn Stewart, C.P.G., P.G., is a senior project manager and hydrogeologist with Swift River Environmental Services, LLC, an Alaska Native Corporation. She has 25 years of experience in geology, hydrogeology, and environmental consulting, primarily with permitting and compliance, environmental monitoring, hydrogeologic characterization, aquifer testing, and regulatory agency interaction and reporting for public and private solid waste management facilities. Her experience also includes environmental assessments for manufacturing, coal, and oil-producing facilities in Colorado, Missouri, Nebraska, North Dakota, Pennsylvania, and Wyoming. She transitioned to environmental services following 11 years of petroleum exploration and production in Colorado, North Dakota, Oklahoma, and Wyoming.

She provides environmental services to the hazardous and solid waste industry by conducting hydrogeologic investigations for landfill siting and expansions to depict uppermost groundwater and groundwater flow direction and to optimize locations of groundwater monitoring wells. She has prepared Groundwater Monitoring Plans (GWMPs) that include sampling and analysis plans, plans for statistical analysis of groundwater and leachate data to identify trends and changes of natural groundwater quality beneath landfills, and certification of groundwater monitoring systems. The hydrogeologic characterization and GWMPs are required components of Engineering, Design, and Operations Plans (EDOPs) to permit solid waste facilities under the approval of county, health, and state regulatory agencies.

Cathryn enjoys conducting, managing, and most of all, training others in environmental monitoring (sampling and reporting) of groundwater, landfill gas, leachate, and stormwater for solid waste facilities in Alaska, Colorado, Nebraska, and Utah.

Cathryn received a B.A. in geology from Smith College, an M.S. in geology from West Virginia University, and an M.E. in geographic information systems from University of Colorado-Denver. She is a Certified Professional Geologist (C.P.G.) through the American Institute of Professional Geologists and a Professional Geologist (P.G.) in AK, CA, NE, PA, UT, and WY. Cathryn is on the Board of Directors and a past president of the Rocky Mountain Chapter of the Solid Waste Association of North America (SWANA). She is pleased to serve on the SHWC and apply her hazardous and solid waste experience in order to have a positive impact on Coloradans and our environment.



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# Rulemaking hearings & public outreach

Due to the COVID-19 pandemic, the commission held all meetings virtually. The commission was unable to travel to hold a meeting outside of the metro area. The public was encouraged to attend the online meetings.

## May 18, 2021

### 6 CCR 1007-3, Part 6 - Solid and Hazardous Waste Commission Annual Fee

Part 6, Section 6.04(a) of the Hazardous Waste Regulations was revised to reflect the annual commission fees being assessed for fiscal year 2021-2022. The fees, which fund the operation of the commission, were not modified.

### 6 CCR 1007-3, Parts 260 and 261 - Modernizing Ignitable Liquids Determinations

The commission adopted amendments that corresponded to the US EPA's July 2020 final rule, which modernized standards for ignitable liquid wastes. Amendments provide greater clarity to hazardous waste determinations, provide more flexibility in testing, and enhance protection of public health and the environment.

## August 17, 2021

The commission did not adopt any rules at the August 17th meeting.



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# Rulemaking hearings & public outreach

November 16, 2021

## 6 CCR 1007-3, Part 273 - Standards for Universal Waste Management (Aerosol Cans)

The commission adopted proposed amendments to Part 273 regarding universal waste management standards for hazardous waste aerosol cans. These amendments will align the Colorado regulations with EPA's final rule published in December 2019.

## 6 CCR 1007-2, Part 1, Section 13 - Medical Waste Facilities

The commission adopted proposed amendments to Section 13. Section 13 had not been modified since 2011, and the proposed changes will clarify the regulation and removed outdated provisions.

## 6 CCR 1007-2, Part 1, Section 10 - Waste Tire End Users Fund

The commission adopted proposed amendments to Waste Tire End Users Fund. Per statute, the commission is required to review the per-ton rebate amount annually.

February 15, 2022

The commission canceled the meeting scheduled on February 15, 2022.



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## Interpretive rules & administrative penalties

The commission has the authority to issue interpretive rules and review administrative law judges' determinations regarding amounts of administrative penalties. The commission did not review any administrative penalties or issue interpretive rules in 2021.

## Other activities and forecast for 2022-2023

The commission will continue to examine all proposed rules for potential multimedia impacts, recycling and reuse opportunities, and regulatory necessity.

The commission looks forward to resuming in-person meeting and possible travel to other parts of the state in 2022-2023.

## Participate in commission activities

The commission encourages all interested parties to participate in its activities and welcomes any suggestions for amendments to the solid waste regulations and the hazardous waste regulations.

Individuals or groups can be added to the commission's electronic mailing list by contacting the commission office.

## Serve as a commissioner

If you are interested in serving on the Solid and Hazardous Waste Commission, apply online at the Governor's Office of Boards and Commissions:

<https://www.colorado.gov/governor/boards-commissions>



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# Summary of regulations | Hazardous Waste

## Part 260: General Requirements for Hazardous Waste Management Systems

The purpose of these rules is to provide definitions of terms, general standards, and overview information applicable to hazardous waste rules. These rules are a necessary and required component in conducting a hazardous waste management program and to retain EPA authorization of the hazardous waste management program.

## Part 261: Identification and Listing of Hazardous Waste

These rules identify those wastes which, because of the public health and environmental hazards that they may pose in transportation, treatment, storage or disposal are subject to regulation as hazardous wastes.

## Part 262: Standards Applicable to Generators of Hazardous Waste

The responsibilities of generators of hazardous wastes in handling and transportation of that waste are set forth in this part. These rules are based upon the federal rules promulgated by the EPA under Subtitle C of the Resource Conservation and Recovery Act (RCRA). This part includes rules on hazardous waste determination, notification requirements, use of the manifest system, pre-transport requirements, and record-keeping and reporting requirements for generators.

## Part 263: Standards Applicable to Transporters of Hazardous Waste

This part sets forth the requirements for transporters of hazardous waste. The rules cover notification requirements, use of the manifest system and the transporter's responsibilities in the event of a hazardous waste discharge during transportation.

## Part 264: Standards for Owners and Operators of Permitted Hazardous Waste Treatment, Storage and Disposal Facilities

This part sets the standards for owners and operators of permitted facilities.

## Part 265: Standards for Owner and Operators of Interim Status Hazardous Waste Treatment, Storage and Disposal Facilities

This part sets the standards for owners and operators of interim status facilities.

## Part 266: Financial Requirements

The purpose of these rules is to provide assurance that funds will be available when needed for adequate closure and post-closure care of hazardous waste management facilities.



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# Summary of regulations | Hazardous Waste

## Part 267: Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities

This part sets forth the requirements for recyclable materials used in a manner constituting disposal, hazardous waste burned for energy recovery, recyclable materials used for precious metal recovery and spent lead-acid batteries being reclaimed.

## Part 268: Land Disposal Restrictions

This part identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

## Part 273: Standards for Universal Waste Management

This part governs the collection and management of certain widely generated wastes. It is intended to facilitate the environmentally sound collection of these wastes and increase their proper recycling or treatment.

## Part 279: Standards for the Management of Used Oil

These rules set forth the standards for used oil management and cover used oil generators, transporters, processors and re-refiners, burners and marketers.

## Part 2: Public Information

These rules set forth under what circumstances HMWMD may deny access to records it has in its possession. The rules also set forth the substantive criteria to be used in determining whether information is a trade secret and entitled to protection from disclosure.

## Part 99: Notification

This part requires all generators and transporters of hazardous waste and owners or operators of treatment, storage, or disposal facilities to file a notification of hazardous waste activity with CDPHE.

## Part 100: Permit Regulations

These rules require a permit and establish permit conditions for the treatment, storage or disposal of hazardous waste. It sets forth who must apply for a permit; the contents of the application, what conditions must be incorporated into permits; when permits may be modified, reissued, or terminated; and establishes procedures to be followed in making permit decisions. This part also includes procedures for public participation in the permitting process, and establishes fees to be assessed against treatment, storage, and disposal facilities to offset the state costs of permitting.



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# Summary of regulations | Hazardous Waste

## Part 101: Hazardous Waste Appeal Regulations, Appeals of Compliance Orders

This part sets forth the types of compliance tools the Division has available to it and the appeal procedures.

## Part 6: Commission Fee Rules

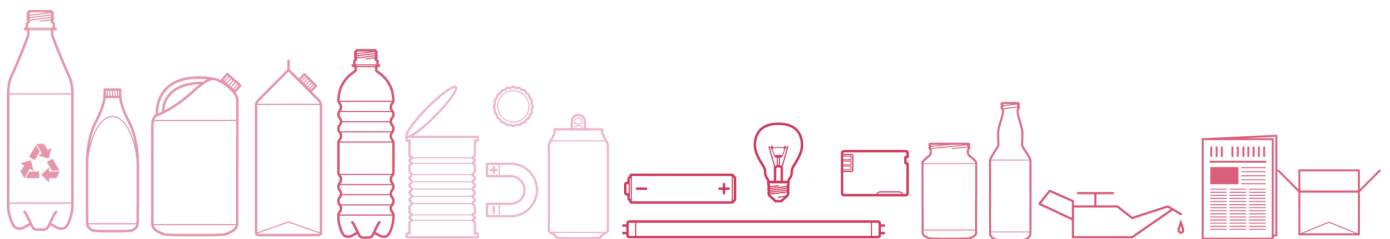
These rules set forth the annual fees that generators and transporters of hazardous waste and facilities that treat, store or dispose of hazardous waste must pay to fund the operation of the commission.

## Part 7: Commission Procedural Rules

This part contains the rules under which the commission conducts its meetings, rulemaking hearings and includes conflict of interest provisions.

## Part 8: Statements of Basis and Purpose

The statements of basis and purpose provide rationale for why rules are implemented or amended. They also provide historical information about previous versions of the rules.



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# Summary of regulations | Solid Waste

## Part 1: Regulations Pertaining to Solid Waste Sites and Facilities

Part A - General requirements and information concerning all solid waste disposal sites and facilities in the State of Colorado

Section 1- Administrative Information

Section 2- Minimum Standards

Part B- Requirements and information concerning all solid waste disposal sites and facilities in the State of Colorado

Section 3 - Standards for solid waste disposal landfill sites and facilities

Section 4- Financial assurance requirements

Section 5- Asbestos waste management

Section 6- Incinerator ash disposal sites and facilities

Section 7 - Transfer stations

Section 8 - Recycling and Beneficial Use

Section 9 - Waste impoundments

Section 10 - Waste tires

Section 11- Solid waste incineration facilities

Section 12- Water treatment plant sludge

Section 13- Medical waste

Section 14 - Composting

Section 15 - {Reserved}

Section 16 - Materials prohibited from disposal

Section 17 - Commercial exploration and production of waste impoundments

Section 18 - {Reserved}

## Part 2: Requirements for Siting Hazardous Waste Disposal Sites

## Part 3: Requirements for Inspections of Off-Site Hazardous Waste Disposal Sites



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# Staff

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