

Registration Form

POLLUTION PREVENTION CEU COURSE \$200.00

Start and finish dates: _____

You will have 90 days from this date in order to complete this course

Name _____ Signature _____
(This will appear on your certificate as above)

Address: _____

City _____ State _____ Zip _____ Email _____

Phone:
Home () _____ Work () _____ Fax () _____

Operator ID # _____ Expiration Date _____

Class/Grade _____
Please circle which certification you are applying the course CEU's/PDH's.

Water Treatment Water Distribution Wastewater Collection MSW

Wastewater Treatment CAFO Solid Waste Customer Service

Pretreatment Groundwater Other _____

Your certificate will be mailed to you in about two weeks. Please select one of the following campuses to grade and process your assignment.

**Technical Learning College
Western Campus**
PO Box 420
Payson AZ 85547-0420
(928) 468-0665 Fax (928) 468-0675
Toll Free (866) 557-1746
info@tlch2o.com

**Technical Learning College
Eastern Campus**
513 Mill Avenue SE Suite 116
New Philadelphia, Ohio 44663
(330) 339-3339 Fax (330) 247-3032
tlc-east@ohio.usa.com
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Chapter 1 Pollution Prevention Assignment

In order to pass this course you will need an overall score of 70%.

You can find the assignment to this course in a Word format and full course support on TLC's website under the Assignment Page.

You are expected to type your answers. You may email your answers to the College after you have paid for the course. info@tlch2o.com Please write your name and address on your assignment. There is a possible 100 points on this assignment.

1. Tell me about yourself: Name, Experience, Education, and Reason for taking this course. (10 points)
2. Who is the responsible pollution prevention governmental agency in your State?
3. Give the name, telephone number, address and website. You will need to save this information for later assignments. (10 points)
4. Describe the benefits of Pollution Prevention or Pollution Control. (20 points)
5. Describe the drawbacks of Pollution Prevention. (20 points)

Scenario: You are a Pollution Prevention/Control Inspector at a large city. The Chief Inspector would like each Inspector to complete a pollution prevention survey for any SIU. (40 points)

Pollution Prevention Survey *Example*

Business Name: _____

Status: _____

Contact Name: _____ Title: _____

Street Address: _____

Business Telephone #: _____

Property Owner's Name _____ Telephone# _____

Address: _____

Years at present facility: _____ Type of Business _____ SIC _____

Water Account#: _____ Type User _____ Fireline _____

Activities Conducted: _____

Professional and Trade Organizations Facility belongs to: _____

Number of Employees: _____ Shifts/days: _____ Days/weeks: _____

Average Consumption:- Estimate of water use: + Number of Employees = Average Discharge
_____ GPD _____ GPD x35: _____ GPD _____ GPD
(Evaporators =Irrigation=Product)

Size of Turf Area: _____ Number of Sprinkler Heads: _____

Type of Vegetaion: _____

Types of Plumbing fixtures: _____

Types of Mechanical/other fixtures: _____

Pretreatment Systems: _____

Maintenance Dates: _____ Haulers: _____

Grease Trap: _____ Sand/oil Int.: _____ Acid Neutralizer: _____

Grease Interceptor: _____ Hair Trap: _____ Silver Reclamation: _____

Solids Interceptor: _____ Lint Interceptor: _____ Other: _____

Number of Floor Drains: _____ Usage: _____

Are there any of the following on the property:

Storm Sewers: _____ Dry Wells: _____

Private Wells: _____ Abandoned Water Wells: _____

Septic Tanks: _____ Last Pumping? _____

Are any used for Waste Disposal? _____

Do you have Material Safety Data Sheets? _____

Pollutants of Concern: _____

Are the stored chemicals properly stored and segregated on the property? _____

How do you dispose of Hazardous Materials? _____

Have you explored Alternative Raw Materials? _____

Have you explored alternative Water Conservation Methods? _____

Have you explored Recycling? _____

Is there a written Standard Operating Procedure(SOP)? _____

Does it include how spills are handled? _____

Are the employees trained and the SOP updated yearly? _____

Is there a Pollution Prevention Program? _____ Is the Program Documented? _____

Recommendation: _____

Evaluator

Facility Representative

Signature

Date

Signature

Date

Chapter 2 Municipal Solid Waste Assignment

In order to pass this course you will need an overall score of 70 %. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com. You can find the assignment to this course in a Word format and full course support on TLC's website under the Assignment Page.

There is a possible 100 points on this assignment.

You are to find the best possible answer from 40 CFR - CHAPTER I - PART 258§ Definitions section. (1 point each)

1. _____ means the person(s) responsible for the overall operation of a facility or part of a facility.
2. _____ means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under subtitle C of RCRA. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment.
3. _____ means the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities in accordance with § 258.60 of this part.
4. _____ means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.
5. _____ means a liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.
6. _____ means a geological formation, group of formations, or portion of a formation capable of yielding significant quantities of ground water to wells or springs.
7. _____ means all types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding residential and industrial wastes.
8. _____ means any municipal solid waste landfill unit that is receiving solid waste as of the appropriate dates specified in § 258.1(e). Waste placement in existing units must be consistent with past operating practices or modified practices to ensure good management.
9. _____ means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).
10. _____ means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under § 257.2. A MSWLF unit also may receive other types of RCRA subtitle D wastes, such as commercial solid waste, non-hazardous sludge, conditionally exempt small quantity generator waste and industrial solid waste.

11. _____ means the geologic formation nearest the natural ground surface that is an aquifer, as well as, lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

12. _____ means a vertical surface located at the hydraulically downgradient limit of the unit. This vertical surface extends down into the uppermost aquifer.

13. _____ means the person(s) who owns a facility or part of a facility.

14. _____ means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

15. _____ means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

16. Definition of Solid waste (50 Points)

Chapter 3 Household Hazardous Waste Assignment

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Background: You back are in the Pollution Prevention/Control Department in the city. The jobsharing program did not last, it seems there was some internal management problems. You are now all by yourself in your division. You have been developing a pollution prevention public awareness campaign but recent budget cut-backs have placed your television ad campaign and all awareness efforts on hold.

Scenario: The City Manager has come back from a nation conference on waste disposal and grant funding. He would like for you to design and operate either a household hazardous waste permanent collection facility or a 1-day collection event. He cannot give you any additional funds for this project. But he has informed you of grant opportunities on the State's website.

He promises that he will support your decisions and will fund your television and household collection project next year. He also has promised that if you can get the television ads funded from the grant promoting household hazardous waste, he will allow you to re-write your job description and will give you a raise.

It is your assignment to write a plan detailing how you will implement your collection event or facility and how you will fund it using either state, federal or private grant. You can use all three if you like. If your State does not offer a waste reduction grant, use a State that does and call it yours.

Detail the following, what products you will and will not collect and why.

- Your public awareness campaign methods and audience. (See *the Used Oil Chapter for ideas*)
- What are you going to call your facility or event? The public may raise a few eyebrows to "Hazardous Waste".
- List potential problems, volunteers, liability, and hazardous waste disposal.
- Are you going to offer usable products back to the public? Are you going to recycle any products?
- Can you get a buyer for certain products?
- Can you get any positive press for free? How can use your facility for disposal?

You may contract part of your disposal and/or collection event to a contractor, just describe those areas/items and payment options.

(100 points)

Please write your name and address on your assignment.

Chapter 4 Recycling Assignment

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Scenario: You were successful in your Hazardous Waste Collection Event. The City Manager has kept his word and has promoted you to your new position as the Recycling Coordinator.

He has asked you for plans for a MURF center and has federal funding to support labor and a community development block grant to pay for part of the facility. The City Manager has told you that the State has mandated this project, but does not want you to make that public information for a couple of months.

City Council member Bill Fields has requested some information from you about recycling. The Councilman is concerned about the operating costs of the MURF. Councilman Fields and the City Manager do not get along on environmental issues and he believes that the City should cut back on environmental positions and programs.

History: There have been several attempts in the past for this same type of collection center. Three of these were private companies that are upset that the City did not support their recycling efforts and subsequently had to close their business.

He would like the following information to be given at the next council meeting.

You will have 10 minutes in order to convince the Council of your skills as a Recycling Coordinator.

How are you going to collect cardboard and paper products?

- What is the market or current value of these products? Is Cardboard worth the effort in collecting? (You can call your local recycling vendors or use the internet for prices)
- What are the numbers on the bottom of the plastic bottles and which ones do we collect?
- The plastic information has not been provided to you in order that you must research this matter, but there are two types of plastic listed in your glossary for your assistance.

Chapter 5 Composting Assignment

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Scenario: After your Council meeting, the Council has tabled the MURF center for an unknown period of time. The City Manager has asked you to place the MURF center project on hold but will not give you an answer on your speech or the reason why the Center is on hold. This is an example of normal operating conditions for the political arena.

You are disappointed and depressed from the possible rejection of your speech from Mr. Fields. Mr. Fields has not stated his stance on recycling but he was on a radio talk show this morning debating the need for a composting program. Mr. Fields believes that composting programs do not make money but cost money. He claims that several other cities have cancelled their composting efforts.

The City Manager has re-assigned you to the position of Special Projects Coordinator and would like for you to design a composting brochure that will be distributed at the garden club and at his Rotary meeting.

Assignment: He would like this brochure to be designed for the homeowner. You can create your own artwork, slogan, logo or text for this brochure.

Chapter 6 Assignment

To receive a "P" or "C" for the course, and meet the requirements for Pollution Prevention Specialist Certification, you must earn at least 70% of the points possible for each assignment.

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Definition Section (40 points)

1. EPA has regulations governing emissions from Hospital/Medical/Infectious Waste Incinerators as well as requirements under the _____ for medical waste treatment technologies which use chemicals for treating the waste. The RCRA Hotline also provides up-to-date information on several EPA programs.

2. _____ is generally defined as any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals.

3. Are there alternatives to incineration for treating and disposing of medical waste?

4. Which other Federal Agencies regulate potentially infectious medical waste?

5. Is EPA involved in any pollution prevention activities within the health care industry?

6. What agency(ies) regulate wastes generated at health care facilities?

7. What is the Medical Waste Tracking Act (Mwta)?

8. How is the incineration of medical waste regulated?

9. _____: One dose or multiple doses of short duration spanning less than or equal to 24 hours.

10. _____: Any poisonous effect produced within a short period of time following an exposure, usually 24 to 96 hours.

Scenario: While you were having your Household Hazardous Waste Collection event in which you specifically advertised "No Medical Waste will be accepted" Later, you were surprised that the "No" was not printed in the local newspaper. You also had people drop off unknown 5-gallon buckets claiming that they were paint buckets and that you later found out that they contained medical waste.

Explain how you handled this situation. (60 points)

Chapter 7 Assignment

To receive a "P" or "C" for the course, and meet the requirements for Pollution Prevention Specialist Certification, you must earn at least 70% of the points possible for each assignment.

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Scenario: The City Manager was happy with your composting assignment and was delighted with your logo and artwork. He said that the Garden Club and Rotary wants him to return and give more presentations. The City Manager likes that. He would like for you to purchase a tire costume and come to his presentations as a Tire Ambassador.

For some reason, you have suggested a Tire Recycling or Proper Disposal Campaign outreach awareness program and would rather focus the resources in developing a friendly mascot/logo/mission in which the City Manager can distribute coffee cups and other items instead of dressing as the Tire Ambassador. You think that he will get more positive publicity with this approach at these meetings.

Assignment: The City Manager wants you to design this mascot/logo/mission/slogan with or without artwork and have it printed on coffee cups before the next Rotary meeting.

Chapter 8 Used Motor Oil Assignment

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You can find the assignment to this course in a Word format and full course support on TLC's website under the Assignment Page. You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Scenario: The City Manager is very popular after your development of the Tire Awareness Campaign and would like to have you develop a used motor oil collection project. He thinks the best method for this campaign is to get all the other cities involved and use the same message.

You are not sure that you have the authority to administer this program and question the City Manager about the events after the council recycling meeting. The City Manager just got back from a League of Cities meeting and has forgot to inform you that the City Council has asked for specifically for you to run this multi-agency project and that Councilman Fields has asked for a new job assignment and a special pay increase for you.

Councilman Fields would like for you to write your own ticket. He would like you to pick your new position title and start this assignment.

Assignment: He wants you to develop the used oil collection program, develop an inter-city or sub-regional group and name it, delegate assignments, find state or federal funding for this project, outline your mission and objectives.

Chapter 9 Assignment

To receive a "P" or "C" for the course, and meet the requirements for Pollution Prevention Specialist Certification, you must earn at least 70% of the points possible for each assignment.

In order to pass this course you will need an overall score of 70 %. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

There is a possible 100 points on this assignment.

Scenario: Because of untreated sewage accidentally bypassing the city's wastewater treatment process, the EPA has placed a Consent Decree order on your city. One of the mandates is for your city to begin a Toxic Minimization Program. The City Manager has assigned you to the Pesticide division and your associates to the Stormwater division. **Your assignment is to:**

1. Identify five common household toxic pesticides:
2. Identify five non-toxic alternatives for toxic pesticides.
3. Identify five beneficial insects:
4. Identify five plants that attract beneficial insects:
5. Develop a Home Brewed Pest Control method or spray:
(10 points each)
6. Explain why the use of toxic pesticides is harmful to our environment:
(50 points)

Chapter 10 Assignment

To receive a "P" or "C" for the course, and meet the requirements for Pollution Prevention Specialist Certification, you must earn at least 70% of the points possible for each assignment.

In order to pass this course you will need an overall score of 70 %. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

Scenario: Your efforts as the Pesticide guru have paid-off. The Director of the Environmental Protection Agency would like to see you and talk about air pollution. She thinks that because of your experience that it would be best to hire you as a consultant. This means that you will have to quit your city job after 15 years of experience.

You tell the City Manager about this opportunity and he is reluctant to lose you. He will let you go but will freeze your position for 6 months in case you decide to come back.

Assignment: The EPA Director would like the following from you:

1. You to write or design text that will be placed on a new website for public outreach and education about air pollution.
2. She wants the basic facts and information about the sources of air pollution and remedies to prevent air pollution. (100 points)

Chapter 11 Wastewater Pollution Control

In order to pass this course you will need an overall score of 70%. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

Scenario: The EPA Director was called to see the President about her outstanding efforts in developing your public awareness program and complemented her on the text. She was so grateful for your efforts that she had to confess that you had written this material.

The President dispatched Air Force One to pick you up and fly you back to Washington.

You do not have a clue what is going on. The Secret Service searches you and briefs you about the President and soon you are introduced to him and his Cabinet.

He is pleased to meet you and has informed you that he needs your assistance to develop a P2 public education campaign that will educate of the possible environmental dangers. Something that could be published and posted on bulletin boards across the nation. Maybe two to four pages with contact information.

Assignment: The President requests a short summary on P2 program that you feel the most comfortable about. He needs information about, air, water, wastewater, pretreatment, mail delivery, bloodborne pathogens, backflow, stormwater, interceptors, wastewater, germ warfare or any other P2 that you could think of.

He gives you the title of Special Deputy to the President and full presidential authority. (100 points)

Chapter 12 Water and Energy Conservation

In order to pass this course you will need an overall score of 70 %. In order to receive a Pollution Prevention Specialist certification, you will need to score a minimum of 70% on this assignment.

You are expected to type your answers. You may email your answers to the College at info@tlch2o.com.

Scenario: You have successfully saved the nation because of your public education efforts.

But the President does not have any further use for you. You cannot find another job because certain political groups believe that you have abused Presidential authorities, especially since you landed the Presidential helicopter at a local restaurant.

You call up the City Manager and he wants you back at your old position. He doesn't say a word about your leaving or what has happened since. Most people at the city didn't even notice that you had left.

Assignment: The City Manager has a job waiting for you. He needs for you to produce a series of 3 short newspaper ads and 1 radio 15 seconds ad on water and/or energy conservation.

He has informed you that there is extra program funding for your program if you can implement a retro-fit program of wasteful devices campaign into these ads.

You are glad to be home.

(100 points)

Groundwater Protection

Chapter 13 Answer Key

Please circle the correct answer

1. T F
2. T F
3. T F
4. T F
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50. T F

Chapter 13 Assignment

GROUNDWATER PROTECTION

All of the groundwater protection questions will come from the Environmental Protection Agency's Citizen's Guide to Groundwater Protection. The booklet is in the front of the assignment.

If you should need any assistance, please email all concerns and the final test to info@tlch2o.com.

You are expected to fill out the enclosed answer key. Please include your name and address on your exam.

1. Ground water also is used for about half of the nation's agricultural irrigation and nearly one-third of the industrial water needs.
A. True
B. False
2. Actually ground water occurs as part of what can be called the oldest recycling program - the hydrologic cycle. The hydrologic cycle involves the continual movement of water between the earth and the atmosphere through evaporation and precipitation. As rain and snow fall to the earth, some of the water runs off the surface into lakes, rivers, streams, and the oceans; some evaporates; and some is absorbed by plant roots.
A. True
B. False
3. The rest of the water soaks through the ground's surface and moves downward through the unsaturated zone, where the open spaces in rocks and soil are filled with a mixture of air and water, until it reaches the water table.
A. True
B. False
4. The water table is the top of the saturated zone, or the area in which all interconnected spaces in rocks and soil are filled with water. The water in the saturated zone is called surface water.
A. True
B. False
5. Areas where ground water exists in sufficient quantities to supply wells or springs are called aquifers, a term that literally means "**water bearer**." Aquifers store water in the spaces between particles of sand, gravel, soil, and rock as well as cracks, pores, and channels in relatively solid rocks.
A. True
B. False
6. An aquifer's storage capacity is controlled largely by its porosity, or the relative amount of open space present to hold water. Its ability to transmit water, or permeability, is based in part on the size of these spaces and the extent to which they are connected.
A. True
B. False

7. Ground water can move sideways as well as up or down. This movement is in response to friction, differences in elevation, and differences in pressure. The movement is usually quite slow, frequently as little as a few feet per year, although it can move as much as several feet per day in more permeable zones. Ground water can move even more rapidly in Klein aquifers, which are areas in water soluble limestone and similar rocks where fractures or cracks have been widened by the action of the ground water to form sinkholes, tunnels, or even caves.

- A. True
- B. False

8. Approximately one-fourth of all fresh water used in the nation comes from ground water.

- A. True
- B. False

9. Ground-water use varies among the states, with some states, such as Hawaii, Mississippi, Florida, Idaho, and New Mexico, relying on ground water to supply considerably more than one-eighth of their household water needs and other states, such as Colorado and Rhode Island, supplying more than 90% of their water needs with ground water.

- A. True
- B. False

10. About 10 percent of all ground-water public water supply systems are in violation of drinking water standards for biological contamination. In addition, approximately 74 pesticides, a number of which are known carcinogens, have been detected in the ground water of 38 states.

- A. True
- B. False

11. Ground-water contamination cannot originate on the surface of the ground, in the ground above the water table, or in the ground below the water table.

- A. True
- B. False

12. Substances that can contaminate ground water can be divided into five basic categories.

- A. True
- B. False

13. Leachates are liquids that have dripped through the landfill and carry dissolved substances from the waste materials, containing such substances as heavy metals and organic decomposition products; salt; bacteria; and viruses.

- A. True
- B. False

14. A major cause of ground-water contamination in many areas of the United States is effluent, or outflow, from septic tanks, cesspools, and privies.

- A. True
- B. False

15. Approximately one half of all homes in the United States rely on septic systems to dispose of their human wastes. If these systems are properly sited, designed, constructed, or maintained, they can allow contamination of the ground water by bacteria, nitrates, viruses, synthetic detergents, household chemicals, and chlorides. Although each system can make an insignificant contribution to ground-water contamination, the sheer number of such systems and their widespread use in every area that does not have a public sewage treatment system makes them serious contamination sources.

- A. True
- B. False

16. Agricultural activities also can make significant contributions to ground-water contamination with the millions of tons of fertilizers and pesticides spread on the ground and from the storage and disposal of livestock wastes. Homeowners, too, can contribute to this type of ground-water pollution with the chemicals they apply to their lawns, rosebushes, tomato plants, and other garden plants.

- A. True
- B. False

17. There are approximately 500 hazardous waste land disposal facilities and more than 16,000 municipal and other landfills nationwide. To protect ground water, these facilities are now required to be constructed with clay or synthetic liners and leachate collection systems.

- A. True
- B. False

18. Unfortunately, these requirements are comparatively recent, and thousands of landfills were built, operated, and abandoned in the past without such safeguards. A number of these sites have not caused serious ground-water contamination problems.

- A. True
- B. False

19. There are between five and six thousand underground storage tanks are used to store a variety of materials, including gasoline, fuel oil, and numerous chemicals.

- A. True
- B. False

20. The average life span of these tanks is 18 years, and over time, exposure to the elements causes them to corrode.

- A. True
- B. False

21. Now, hundreds of thousands of these tanks are estimated to be leaking, and many are contaminating ground water. Replacement costs for these tanks are estimated at \$1 per gallon of storage capacity; a cleanup operation can cost considerably more.

- A. True
- B. False

22. Wells can be another source of ground-water contamination. In the years before there were community water supply systems, most people relied on bottled water to provide their drinking water. In rural areas this can still be the case. If a well is abandoned without being properly sealed, however, it cannot act as a direct channel for contaminants to reach ground water.

- A. True
- B. False

23. Given the importance of ground water as a source of drinking water for so many communities and individuals and the cost and difficulty of cleaning it up, common sense tells us that the best way to guarantee continued supplies of clean ground water is to prevent contamination.

- A. True
- B. False

24. The Safe Drinking Water Act, which authorizes OSHA to set standards for maximum levels of contaminants in drinking water, regulate the underground disposal of wastes in deep wells, designate areas that rely on a single aquifer for their water supply, and establish a nationwide program to discourage the states to develop programs to protect public water supply wells (i.e., wellhead protection programs).

- A. True
- B. False

25. The Resource Conservation and Recovery Act, which regulates the storage, transportation, treatment, and disposal of solid and hazardous wastes to prevent contaminants from leaching into ground water from municipal landfills, underground storage tanks, surface impoundments, and hazardous waste disposal facilities.

- A. True
- B. False

26. The Federal Insecticide, Fungicide, and Rodenticide Act, which authorizes DOT to control the availability of pesticides that have the ability to leach into ground water.

- A. True
- B. False

27. The Clean Water Act, which authorizes EPA to make grants to the states for the development of ground-water protection strategies and authorizes a number of programs to prevent water pollution from a variety of potential sources.

- A. True
- B. False

28. Wellhead protection is simply protection of all or part of the area surrounding a well from which the well's ground water is drawn. This is called a wellhead protection area (WHIPPY).

- A. True
- B. False

29. For a program to be successful, all levels of government must participate in the wellhead protection program. The federal government is responsible for approving state wellhead protection programs and for providing technical support to state and local governments.

- A. True
- B. False

30. Federal governments must develop and implement wellhead protection programs that meet the requirements of the Safe Drinking Water Act.

- A. True
- B. False

31. Source Prohibitions - To prohibit the storage or use of dangerous materials in a defined area; these can take the form of prohibitions of certain activities or of restrictions on the use of certain materials.

- A. True
- B. False

32. Purchase of Property or Development Rights - To guarantee community control over the activities on lands that feed water into a septic tank, this may involve outright purchase of the land or of a more limited interest, such as surface-use rights.

- A. True
- B. False

33. Household Hazardous Waste Collection - To alleviate the threat to ground water from the disposal in regular trash pick ups, sewers, or septic systems of household products that contain hazardous substances or other materials that can be harmful to ground water, such as paints, solvents, or pesticides.

- A. True
- B. False

34. Water Constipation - To reduce the total quantity of water withdrawn from ground-water aquifers and to protect against contamination by reducing the rate at which contaminants can spread in the aquifer (e.g., excessive withdrawals from an aquifer located near the ocean can draw salt water into the aquifer and contaminate wells).

- A. True
- B. False

35. Public Education - To build community support for regulatory programs, such as controls on pollution sources in special zoning districts, and to motivate voluntary ground-water protection efforts, such as water conservation or household hazardous waste management.

- A. True
- B. False

36. Products like motor oil, pesticides, left-over paints or paint cans, mothballs, flea collars, weedkillers, household cleaners, and even a number of medicines contain materials that can be harmful to ground water and to the environment in general.

- A. True
- B. False

37. The average American disposes of approximately one thousand pounds of this type of waste each year. So, although the amount of any of these substances that you pour down your drain, put in your trash, or dump on the ground may seem insignificant to you, try multiplying it by the number of people in your community.

- A. True
- B. False

38. Anything you pour down your drain or flush down your toilet will enter your septic system or your community's sewer system. Using this method to dispose of products that contain harmful substances can affect your septic system's ability to treat human wastes.

- A. True
- B. False

39. Hazardous wastes that are dumped on or buried in the ground can fertilize the soil and either leach down into the ground water or be carried into a nearby body of surface water by runoff during rainstorms. This is great for our environment.

- A. True
- B. False

40. Have your septic system inspected once in a lifetime and pumped out regularly; chemical or other additive can be a substitute for this, and these septic system chemicals actually can prevent your septic system from functioning properly

- A. True
- B. False

41. Be cautious about what you put into your system; substances like coffee grounds, cigarette butts, sanitary items, or fats do not break down easily in septic systems, and chemicals like paints, solvents, oil, and pesticides will go from your septic system into the ground water.

- A. True
- B. False

42. Do not limit the amount of water entering your system by using water-wasting fixtures and appliances.
- A. True
 - B. False
43. Get informed and get involved! Around the country, citizens are getting involved in their communities, volunteering their time and energy, and making a difference. If you think one person can't change the system, help form a group. You, alone or as part of a group, can help to educate your family, friends, and neighbors about the importance of ground water to your community. And, after you've cleaned up your own act, you can help your community clean up its act.
- A. True
 - B. False
44. If your community relies on ground water to supply any portion of its fresh water needs, you, the citizen, will be directly affected by the success or failure of a ground-water protection program.
- A. True
 - B. False
45. Equally important, you, the citizen, can directly affect the success or failure of your community's ground-water protection efforts.
- A. True
 - B. False
46. This guide was intended to help you take an active and positive role in protecting your community's ground-water supplies.
- A. True
 - B. False
47. Until the 1770s, George Washington thought ground water was believed to be naturally protected from contamination.
- A. True
 - B. False
48. The layers of soil and particles of sand, gravel, crushed rocks, and larger rocks were thought to act as filters, trapping contaminants before they could reach the ground water. Sometimes this layer is called the Coffee Filter layer.
- A. True
 - B. False
49. We now know that some contaminants can pass through all of these filtering layers into the saturated zone to contaminate ground water.
- A. True
 - B. False
50. Between 1971 and 1985, 2 ground-water related disease outbreaks, with 52,181 associated illnesses, were reported. Most of these diseases were short-term digestive disorders and bloodborne pathogenic disorders.
- A. True
 - B. False

If you successfully pass this course, you will receive a certificate for 30 PDHs, 30 Training Hours, or 3 CEUs. Make sure to make an extra copy of your work, you will not receive your test back.

You have 120 days to successfully complete this course or you will have to pay a \$25.00 renewal fee. You also have 90 days from completion to apply and pay for any college credits.

To receive a "P" or "C" for the course, and meet the requirements for Pollution Prevention Specialist Certification, you must earn at least 70% of the points possible for each assignment.

Please include your name and address on your exam.

Please fax the answer key to TLC Western Campus Fax (928) 468-0675 or Eastern Campus Fax (330) 247-3032.

Please mail this with your final exam

Pollution Prevention CEU Course
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Very Easy 0 1 2 3 4 5 Very Difficult

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4. How did you hear about this Course? _____

5. What would you do to improve the course?

Any other concerns or comments.
