

Earth Day 2012



Career Profile

Name: Anil I. Patel, P.E.
Job Title: Environmental Engineer
Location: Southeastern Regional Office
Years with DEP: 22

What kinds of activities do you perform on a daily basis?

I review waste management permit application including municipal waste, residual waste and hazardous waste.

What kind of educational background do you have?

I have a bachelor's degree in civil engineering. I also hold a Professional Engineer (P.E.) License.

What is the most challenging part of your job?

The most challenging part is dealing with different companies (applicants) with different kind of business. It is my responsibility to make sure the facilities work under all environmental rules and regulations.

What got you interested in working in an environmental field?

My interest in the environmental field developed because we make sure that what we breathe, drink and eat are all environmentally safe.

What is the most rewarding part of your job?

I can share my knowledge to improve the environment by minimizing the waste generation at the facilities I work with.

What advice do you have for someone thinking about a career in environmental science?

If someone is thinking about an environmental career then DEP would be a great choice. You can share your knowledge to improve the quality of the environment.

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Career Profile

Name: Anna Barrick, P.E.
Job Title: Environmental Engineer
Location: Northcentral Regional Office
Years with DEP: 18

What kinds of activities do you perform on a daily basis?

I am responsible for reviewing construction permit applications for public drinking water systems that include sources of supply, treatment processes, storage tanks, booster pump stations and distribution facilities. Following completion of construction, I perform operation permit inspections to verify that construction has been completed in accordance with approved plans and specifications. I compose operating permits and recommend permit issuance when a project is deemed acceptable. I am also responsible for updating and maintaining the DEP databases. I also work with field sanitarians and operators to troubleshoot problems at public water systems.

What kind of educational background do you have?

I have a bachelor's and master's degree in civil engineering from Villanova University and Drexel University, respectively.

What is the most challenging part of your job?

It is challenging to implement stringent regulations when many public water supplies are struggling to comply with existing requirements. I would like more grant programs become available to assist smaller systems finance the design and construction of necessary upgrades and laboratory costs associated with ever-increasing monitoring requirements.

What got you interested in working in an environmental field?

I have always enjoyed hiking, camping, biking, swimming and many other outdoor activities. As a child, I did well in math and science. In high school, guidance counselors encouraged me to pursue a career in engineering. Combining both my interests and areas of expertise, I decided to become an environmental engineer.

What is the most rewarding part of your job?

It is rewarding to work with the small water systems and their operators. Most small water systems have very tight budgets. I enjoy helping to find inexpensive but effective solutions to their problems. The operators truly appreciate when a DEP employee takes time to explain new regulations and technical issues "one-on-one".

What advice do you have for someone thinking about a career in environmental science?

When considering a career, research is the key to satisfaction. I recommend that high school students spend time "job shadowing" professionals in their potential areas of interest. This will help the student to make a better choice when selecting a course of study in college. I encourage college students to participate in summer internships. Within the environmental science field, there are many branches, including drinking water, wastewater, air, waste, oil and gas, mining, etc. An internship will provide valuable hands-on experience, as well as broaden a student's knowledge of the various specialties within a discipline. This enables students to focus on more desirable topics in their advanced coursework. I agree with Confucius when he said, "Choose a job you love and you'll never have to work a day in your life".



Name: Carmen Gaston
Job Title: Chemist IV
Location: Bureau of Laboratories
Years with DEP: 24

What kinds of activities do you perform on a daily basis?

I conduct inductively coupled plasma spectroscopy.

What kind of educational background do you have?

I have a bachelor's degree in chemistry.

What is the most challenging part of your job?

The most challenging part of my job is managing the paper work.

What got you interested in working in an environmental field?

I was inspired by my high school chemistry teacher.

What is the most rewarding part of your job?

Interacting with and assisting our internal and external customers is the most rewarding part of my job.

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Career Profile

Name: Chao-Chuan Liao
Job Title: Chemist 3
Location: Bureau of Laboratories
Years with DEP: 21

What kinds of activities do you perform on a daily basis?

I supervise chemists who conduct analyses involving volatile organic compounds and perform administrative duties as needed. I also maintain and operate analytical instruments.

What kind of educational background do you have?

I have a doctorate degree in analytical chemistry.

What is the most challenging part of your job?

The hardest thing about my job is time management and setting priorities among various duties.

What got you interested in working in an environmental field?

I wanted to work in the environmental field because it has a fast and direct impact on peoples' lives.

What is the most rewarding part of your job?

It is rewarding to know that my job will help protect the citizens of Pennsylvania from environmental hazards.

What advice do you have for someone thinking about a career in environmental science?

Think "green" and do your part to preserve our planet.



Name: Charlene Sauls
Job Title: Licensed Professional Geologist
Location: Southcentral Regional Office
Years with DEP: 13

What kinds of activities do you perform on a daily basis?

I work in the Waste Management Program so my job duties are to make sure wastes are properly disposed of. The program permits municipal, residual and hazardous waste landfills and industrial facilities and monitors them to make sure they are operating in accordance with state and federal regulations. If not properly operated, these facilities have the potential to pollute the groundwater, surface water, soil and air. I also evaluate historic facilities that may have caused pollution in the past. These evaluations are done in order to determine if there are any present-day exposures to human health or the environment due to improper historic disposal practices. Some of my job duties include:

- Review of groundwater, surface water, soil and air analytical data collected from regulated, unregulated and closed historic facilities.
- Perform site inspections to investigate handling of wastes at historic facilities and at currently regulated/unregulated facilities.
- Review environmental investigative reports and proposals.
- Gather all available data and create GIS maps with current data to help evaluate environmental problems.
- Work as a team to make decisions and solve problems related to regulated and unregulated facilities.
- Review permit applications and closure plans for landfills and residual/hazardous waste facilities.
- Coordinate permits for industrial facilities that treat/store/dispose municipal, residual and hazardous waste.

What kind of educational background do you have?

I have a bachelor's degree in geology and a master's degree in secondary science education from the University of Houston.

What is the most challenging part of your job?

The most challenging part of my job is trying to get facility operators to abide by state and federal regulations pertaining to proper waste disposal/treatment/storage. I am always learning new applicable state and federal regulations. Gathering of all data by sifting through historic files and internet databases can also be a challenge. I also have to keep up with the latest technology so that projects can be more efficiently evaluated. Finally, coordinating with other DEP programs and EPA in order to satisfy all groups involved and regulations can be an issue.

What got you interested in working in an environmental field?

I have always been interested in the earth, geology and the environment; however as a result of being from Houston, I began my career as a petroleum geologist exploring for oil and gas in the Gulf of Mexico. In the late 1980s, after a move from Texas to Pennsylvania due to the cyclic oil industry, I entered the environmental field after applying for a geologist position with the PADER in 1989. The job satisfied my love for geology, the environment and my desire to protect the earth and people in the present and future. I know the earth is irreplaceable so it is important for me to help preserve it.

What is the most rewarding part of your job?

The most satisfying aspect of my job is knowing that I am helping to keep the commonwealth beautiful, clean and safe for people to live. Being a part of a group who dedicates their lives to protecting the environment is also very rewarding. To know that the groundwater, air and soils are being cleaned up to save human health and ecological standards is a great feeling.

What advice do you have for someone thinking about a career in environmental science?

If you love the earth and want to keep it safe for future generations, a career related to environmental science is a very satisfying and enjoyable one. Working with a group of scientists who share the same passion is a very rewarding experience.

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Career Profile

Name: Charles A. Kubasik
Job Title: Conservation District Field Representative
Location: California District Office, Southwest Region
Years with DEP: 23

What kinds of activities do you perform on a daily basis?

I serve as a primary liaison between DEP, State Conservation Commission and County Conservation Districts in the ten county southwest region, and provide guidance and assistance to Conservation District staff and directors on a wide variety of environmental initiatives. Typical duties include providing consultative assistance to Conservation Districts on programing and operational matters, providing reports at Conservation District board meetings, setting up various meetings, coordinating environmental education activities, providing training to Conservation District staff and directors, working with county government on district staffing, budgeting and board appointments, mediating problems, evaluating Conservation District implementation of state delegated programs such as the Erosion & Sedimentation Pollution Control Program, Dirt & Gravel Road Program, etc.

What kind of educational background do you have?

I have a bachelor's degree in environmental science from California University of PA.

What is the most challenging part of your job?

Working with many different people from around the region and across the state and dealing with various personalities can sometimes present a challenge.

What got you interested in working in an environmental field?

I have always had a great appreciation for the outdoors due to my interest in fishing, hunting and boating. I have always been conservation minded, so I hoped I could make a positive impact through a career in the environmental field.

What is the most rewarding part of your job?

Working with so many fine people makes this job very rewarding. I have been given the opportunity to be involved in many different programs and get to travel around the state, and as a result, the job never gets boring and remains a challenge.

What advice do you have for someone thinking about a career in environmental science?

I think in order to be successful in this field, it is important to have an appreciation and respect for our environment, and have the desire to protect and enhance our natural resources. Working in the environmental field has its up's and down's just as any job would, though can be very rewarding if you feel you are making a positive impact.



Name: Christopher J Kriley, PE
Job Title: Section Chief
Location: Southwest Regional Office
Years with DEP: 18

What kinds of activities do you perform on a daily basis?

I oversee the work of the biologists and engineers in my program. The staff is responsible for reviewing Water and Obstruction Permits (105), NPDES permits associated with construction activities (102) and dam inspections.

What kind of educational background do you have?

I have a bachelor's degree in civil engineering from Penn State.

What is the most challenging part of your job?

Sometimes it is hard to explain to someone who wants to impact a stream or wetland, why the resource needs to be protected. They may see the wetland area as an area too wet to mow the grass or a stream channel that splits their yard in half.

What got you interested in working in an environmental field?

I started as a dam inspector, I liked watching the dams being built and liked being in the field. I do not go in the field much now, but I still like seeing things being built, knowing that we were part of the project.

What is the most rewarding part of your job?

When helping citizens with their permit applications, we get a lot of people who will only need one permit from us and never see us again. We also get permits for people who are building their new home and need a permit to build their driveway across the stream; they have no idea what is involved in getting a permit. Assisting people like that is rewarding. It is also rewarding to see a permit being issued for a complicated site which took a lot of team work by the department, the applicant and the applicant's consultant.

What advice do you have for someone thinking about a career in environmental science?

Due to the plethora of oil and gas activities' going on in the state now is a good time to begin a career in environmental science.

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Career Profile

Name: Harry N. Vitolins
Job Title: Water Pollution Biologist Supervisor
Location: Northcentral Regional Office
Years with DEP: 33

What kinds of activities do you perform on a daily basis?

My daily activities vary depending upon the season of the year. As a supervisor, I attend to routine administrative tasks, such as time sheets, leave requests, employee performance reviews, etc. With respect to the Dam Safety and Encroachment Act and Chapter 105 of the Rules and Regulations, I review complaint investigations conducted by subordinates. I also review and recommend action on wetland restoration, creation and enhancement projects and conduct environmental analysis of wetlands and waterways for dam, water obstruction and encroachment applications and recommend permit action. During the Spring-Summer season, I am the Black Fly coordinator for the West Branch of the Susquehanna Watershed. That responsibility includes conducting comprehensive field monitoring of the presence, abundance and life stages of black flies as it relates to scheduling treatments and evaluating treatments. I oversee and direct the daily activities of an assigned seasonal intern for that particular program. Also during that time of the year, I review subordinates' work that coordinates investigations and surveillance activities in monitoring mosquito populations and control operations in the 14-county region.

What kind of educational background do you have?

I have a bachelor's degree in environmental resource management from Penn State.

What is the most challenging part of your job?

Since there is more work to accomplish than there are hours in a day, setting priorities on a daily basis are routine and a necessity in order to accomplish my goals. Distributing workloads to subordinates is a challenge when staffing levels are down in lean years. It can be frustrating when you know that environmental compliance usually goes hand in hand with field presence. Because of the aforementioned issues, some work does not get done in a timely basis which can make some people, including citizens, upset. Being able to be honest and polite with them in explaining the issues is sometimes not enough to satisfy their concern but they deserve our time and respect.

What got you interested in working in an environmental field?

I grew up on a farm adjacent to the West Branch of the Susquehanna River near Williamsport. Periodically, as a youngster (early 1960's), I witnessed fish kills in the West Branch due to acid mine drainage slugs moving downriver from the coal mining counties of Clinton and Clearfield. Later, I read that at one time, well before I was born, there weren't ever any fish kills in the West Branch Susquehanna River at Williamsport. That was because the West Branch was so polluted by acid mine drainage, that there were no fish to kill. I also witnessed in the late 1960's, how 4-lane highways were put in with little or no consideration for the environment. I witnessed acres of wetlands being filled, and streams such as Daugherty's Run being cut off from its meandering form through wetlands and forced into a perfectly straight half-mile trapezoidal channel to empty about a mile upriver from where the original confluence with the river occurred. Additional wetlands were dried up, not from the highway fill but from the loss of hydrology when the stream was cut off from its natural channel. All this was done without any thought for replacement of the lost functions and values those water bodies provided naturally. I witnessed first hand, how this "environmental conquering" affected my extra-curricular activities. Hunting, trapping, fishing and just playing "neighborhood ice-skating tag" on the wetlands during the wintertime made me appreciate these water bodies at a young age. Eventually, I came to realize that this

method of progress really didn't consider the next generation and I needed to be proactive in making a difference. The first Earth Day, April 1970, took place while I was a sophomore in high school and I knew then, this was the field I should enter.

What is the most rewarding part of your job?

Environmental progress can happen when appropriate laws and people that care implement the rules and regulations that come from those laws, such as the Clean Stream Law. As a youngster, I witnessed aquatic life in the West Branch of the Susquehanna River at Williamsport in "a struggling" condition. The river was starting to recover, but had a long way to go. In this present day, 48 years later, the aquatic life has made significant progress to the road of recovery. Bass fishing tournaments now occur regularly and the adult forms of aquatic macro-invertebrates bother people as they conduct their daily routines, all signs of a recovering body of water. I would think that I may have had a small part in that recovery along with a multitude of people that cared and did their jobs.

The progress at Babb's Creek is another great example of environmental progress. I used to take weekly samples on Babb's Creek at the bridge at Blackwell. Babb's Creek was turquoise in color and was void of aquatic life. Since then, efforts made by federal, state and county governments to treat acid mine discharges and re-mining have brought that stream back to an elevated existing use of exceptional value. A nice success story though it came at a significant cost.

What advice do you have for someone thinking about a career in environmental science?

Even though the West Branch of the Susquehanna River has made a dramatic turnaround from the times when there were no fish present in Williamsport, there continues to be new challenges in this and other Pennsylvania waterways. Emerging contaminants, such as endocrine disruptors, are theorized to possibly be affecting the smallmouth bass populations in our waters. A lot is still unknown and there is a need for individuals to keep a common sense, level-headed approach to solving our present and future environmental challenges.



Name: James A. Beach, P.E.
Job Title: Air Quality Engineer
Location: Southeast Regional Office
Years with DEP: 11

What kinds of activities do you perform on a daily basis?

I conduct permit application reviews which include verification of information in application, literature reviews for background information on projects, and engineering evaluation. I am also a technical writer which means that that I write findings in technical review memos, and write conditions in plan approvals and permits for companies to follow to demonstrate compliance with air quality regulations. I also do calculations for NSR applicability and modeling of emissions from sources.

What kind of educational background do you have?

I have a bachelor's and master's degree in chemical engineering.

What is the most challenging part of your job?

The most challenging part of my job is also the most interesting part of my job, which is the variety of different sources that are permitted from rock crushing operations to chemical plants to tissue manufacturers. Because of this, I know a little bit about many different industries; I do not think the same would apply in many industry jobs. My educational background does not cover all these industries, so there are opportunities to learn many things on a daily basis. Another challenging aspect is the negotiations that take place in the permitting of sources, since there has to be a balance between what DEP needs a company to do to demonstrate compliance and what the company can actually do to demonstrate compliance. This takes some negotiation and compromise with all parties involved. I must have the ability to listen, but also be firm so that the end result is one that protects the environment and can be accomplished with the company's resources.

What got you interested in working in an environmental field?

There are many things in my life that may have led me to an environmental field. My love of science and math began with a love of biology when I was very young. I also had a family member that was affected by the environment in which he worked. I have a strong desire to help people. While this was not the only field I was considering, I felt that working in a job that involved the environment would be the best fit for my interests and give me the opportunity to do some good with my education.

What is the most rewarding part of your job?

One of the most rewarding parts of the job is working with the people in the Air Quality Division. Everyone seems dedicated to protecting the environment, and I get great insight and feedback from my co-workers when preparing permits and plan approvals. I believe that I have grown more in this job by listening to this feedback and understanding their concerns, and I believe that my work has only improved because of the dedication of my co-workers.

What advice do you have for someone thinking about a career in environmental science?

Always keep an open mind because the solution to a problem may come from outside your realm of expertise. Also, listen to others around you because they may have insight on something that was not presented to you. Think critically and understand what is presented to you; only then can you find the truth.

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Career Profile

Name: Jim Yoder
Job Title: Lab Quality Assurance and Safety Manager
Location: Bureau of Laboratories
Years with DEP: 33

What kinds of activities do you perform on a daily basis?

I do a lot of administrative and technical activities. More specifically, I answer written and verbal questions about lab quality assurance and lab safety requirements, policies, procedures and regulations.

What kind of educational background do you have?

I have a bachelor's degree in biological sciences.

What is the most challenging part of your job?

The most challenging part is dealing with the quantity of work and taking responsibility for many details.

What got you interested in working in an environmental field?

I like technical work.

What is the most rewarding part of your job?

The most rewarding aspect of my job is the ripple effect I can have. The things I do as the lab's quality assurance manager have an impact on the quality of the work done by most of our chemists and microbiologists, which has an impact on the quality of the data they produce (environmental sample test results), which is then used to make significant public health and environmental decisions.

What advice do you have for someone thinking about a career in environmental science?

It is a respectable field; definitely consider it as a possibility.

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Career Profile

Name: June A. Black
Job Title: Organic Chemistry Section Chief
Location: Bureau of Laboratories
Years with DEP: 13

What kinds of activities do you perform on a daily basis?

I manage a staff of 11 organic chemists performing testing in support of DEP programs and regulations. I also review data and perform analyses as necessary during times of heavy sample load. In addition, I provide technical support to field staff and contractors who have questions regarding proper testing and sample collection procedures. I serve on the Fish Consumption Advisory Technical Workgroup, which is an interdepartmental group responsible for reviewing fish tissue data and setting consumption advisory limits for native caught fish from Pennsylvania waters.

What kind of educational background do you have?

I have a bachelor's degree in chemistry from Mount Holyoke College.

What is the most challenging part of your job?

In recent years, the workload has been the most difficult aspect. When I first joined the Bureau of Laboratories, there were about 105 employees, now we have 80. The number of samples being submitted to the Organic Chemistry Section annually has doubled during that same time frame. Plus, the Bureau has achieved national accreditation status, which significantly increases the number and types of quality assurance and quality control measures being performed by the laboratory.

What got you interested in working in an environmental field?

When I graduated from college, the first job I got was working for an environmental testing lab. I hadn't particularly given any thought to working in the environmental field before that, but once I was there I found I liked it. Protection of the environment has always been important to me, so it was nice to feel like I was "doing my part".

What is the most rewarding part of your job?

Sometimes chemists get a bad rap for damaging, polluting or otherwise not caring about the environment. I really enjoy working for the Bureau because it allows me to practice the science I love while feeling that I am helping to protect the environment and public health. It is the best of both worlds!

What advice do you have for someone thinking about a career in environmental science?

Try to understand as many different aspects of the job as possible. There are many state and federal environmental statutes which affect both the collection and testing of samples. It seems that field staff are familiar with the regulations concerning (for example) site cleanup standards, but not the applicability of the various analytical methodologies available for use – and the opposite is also true.

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Career Profile

Name: Kristopher Gilham
Job Title: Air Quality Specialist & Emergency Response Team member
Location: Reading District Office, Southcentral Region
Years with DEP: 4 ½

What kinds of activities do you perform on a daily basis?

I conduct annual inspections of air pollution sources such as quarries, foundries, lead smelters, woodworking and painting operations, cement manufactures, power plants and other combustion sources. I also respond to environmental emergencies as a member of the Emergency Response Team. I investigate complaints dealing with smoke, open burning, diesel idling, fugitive emissions and malodors. I conduct asbestos remediation and demolition inspections as well as review compliance certifications and emissions reports from facilities. Finally, I service the lead air sampling network in Berks County.

What kind of educational background do you have?

I have a bachelor's degree in geosciences from Penn State.

What is the most challenging part of your job?

Dealing with complainants who are either unhappy with the results of our investigations, or want us to do more than we are able, is one of the most challenging aspects of my job. Also, dealing with individuals or companies who do not want to abide by the regulations can be a challenge at times.

What got you interested in working in an environmental field?

Growing up, I spent a lot of time with my grandfather. He was a high school biology and ecology teacher, as well as an environmental education professor at Penn State. What I learned from him and from time spent in the outdoors piqued my interest in different environmental fields, which lead to my major in college and a desire to work in a vocation that protected our natural resources.

What is the most rewarding part of your job?

Problem-solving. In air quality, I enjoy the challenge of helping a facility that is having problems with their emissions, discovering where the trouble is occurring and assisting in the correction of its problem.

When on a call with the Emergency Response Team, I can be dealing with any sort of pollution problem from chemical spills and releases to radiation. The challenge here is to determine the best course of action to prevent the spread of the pollutant and to protect the environment and people's lives.

What advice do you have for someone thinking about a career in environmental science?

Make sure you have a good background in chemistry. In just about every environmental occupation, you will be dealing with chemical interactions and what influences those interactions.

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Career Profile

Name: Lynne Scheetz
Job Title: Sanitarian Supervisor
Location: Lancaster District Office, Southcentral Region
Years with DEP: 19

What kinds of activities do you perform on a daily basis?

My staff and I enforce the Safe Drinking Water Act by regulating approximately 600 public water suppliers in Lancaster and Lebanon Counties. We inspect water treatment facilities, monitor required sampling of drinking water, respond to drinking water quality complaints and help water operators to comply with a variety of regulations related to operation of drinking water treatment facilities. I am also the office manager for the Lancaster District Office.

What kind of educational background do you have?

I have a bachelor's degree in environmental resource management from Penn State. I am also a Pennsylvania Class A Certified Water Operator, licensed for all water treatment technologies.

What is the most challenging part of your job?

In the past several years there have been some major changes to the Safe Drinking Water Regulations. It can be difficult to learn all of the parts of these new regulations and be able to explain them to water suppliers or facility owners, especially those that are not as familiar with water treatment and sampling requirements. Whenever possible, I try to help owners and operators use the most cost-effective options to remain in compliance with the regulations.

What got you interested in working in an environmental field?

I have always been interested in outdoor activities such as camping, running, hiking and kayaking. I wanted a career where I could spend part of my time outdoors, helping to protect the environment for everyone to enjoy and keeping people healthy by reducing exposure to contamination.

What is the most rewarding part of your job?

Protecting public health is the most important aspect of my job. When a public water system is providing water that does not meet public health requirements, it's important that users are notified promptly and the problem corrected quickly. When systems with problems install treatment or correct deficiencies, it's good to know that my work may have prevented someone from getting sick.

What advice do you have for someone thinking about a career in environmental science?

I would recommend that you be flexible by applying and interviewing for any available opening in the environmental field that you find, even if it's not in your area of interest or at your preferred location. I began my work with DEP as an air quality inspector and was able to transfer to Drinking Water at a later date. Although Air Quality was not my primary interest, I learned a lot and gained a lot of good experience. I also worked in four different DEP offices until I settled into the Lancaster Office.

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Career Profile

Name: Mark Johnson
Job Title: Environmental Group Manager
Location: Southeast Regional Office
Years with DEP: 33

What kinds of activities do you perform on a daily basis?

As group manager I am responsible for the operations section within the Safe Drinking Water Program. I review the compliance status of regulated facilities and direct staff to follow-up as needed. That follow-up might be in the form of compliance assistance or more formal enforcement. In consultation with the compliance specialists, a course of action is decided upon. Additionally, I meet with each of my supervisors to review current field activities, determine what problems might have arisen, and jointly decide on the best course of action in response to those problems.

What kind of educational background do you have?

I have a bachelor's degree in forestry and environmental resources management. I also have a master's degree in environmental health.

What is the most challenging part of your job?

In the last few years the Safe Drinking Water Program has expanded tremendously, both in terms of workload and the complexity of the regulations. This change has really challenged everyone to meet those increasing demands in a time of budgetary austerity.

What got you interested in working in an environmental field?

I am a child of the seventies; the first Earth Day in 1970 had a huge impact on how I viewed Man's stewardship (or lack thereof) of the planet.

What is the most rewarding part of your job?

The Safe Drinking Water Program is really about protecting the public's health. In the 25 plus years that the department has been responsible for the Safe Drinking Water Act, we have made tremendous strides in the effort to assure that everyone is afforded the same level of protection.

What advice do you have for someone thinking about a career in environmental science?

You won't get rich, but you will end up in a career that allows you to see the benefit of your efforts.

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Career Profile

Name: Martina McGarvey
Job Title: Laboratory Director
Location: Bureau of Laboratories
Years with DEP: 24

What kinds of activities do you perform on a daily basis?

I take care of personnel management, budget review, technical oversight, laboratory operations oversight, laboratory administrative oversight, resource allocation, research for future laboratory projects, customer service for environmental programs, and problem solving for all client and laboratory areas.

What kind of educational background do you have?

I have a bachelor's and master's degree in chemistry and doctorate in management.

What is the most challenging part of your job?

It is challenging to have the flexibility to address problem solving for most areas in the environmental laboratory which include personnel management, resource management, budgetary needs, and securing funding and resources for future laboratory needs.

What got you interested in working in an environmental field?

I had an initial interest in science, laboratory work and environmental protection. I later developed an interest in leadership, management and organizational development.

What is the most rewarding part of your job?

The most rewarding part of my job is successfully overcoming challenges to meet public and environmental program needs to protect public health and the environment based on quality analytical data.

What advice do you have for someone thinking about a career in environmental science?

You should focus on an environmental science/chemistry education and research sources for learning more about environmental science including internships and job shadowing.



Name: Megan A. Snyder
Job Title: Chemist 2
Location: Bureau of Laboratories
Years with DEP: 3½

What kinds of activities do you perform on a daily basis?

The best part about working in the organics section is the variety of tasks. One day I setup, extract and concentrate samples. The next day I prepare the instrument for analysis and make a calibration curve. After analysis, I analyze the data.

What is your educational background?

I have a bachelor's degree in biology and chemistry with a concentration in forensic science.

What is the most challenging part of your job?

I am still developing my instrument troubleshooting skills. When a problem occurs during sample analysis, it is challenging to determine and resolve the issue.

What got you interested in working in an environmental field?

I always enjoyed spending time outdoors and seeing the diversity of nature. I enjoyed chemistry and biology classes in high school so I decided to pursue a degree in the sciences.

What is the most rewarding part of your job?

Knowing that the results I report are used to monitor the condition of the environment and ultimately the health of the community.

What advice do you have for someone thinking about a career in environmental science?

Definitely work hard in college and apply for an internship.

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Career Profile

Name: Michele Nesbit
Job Title: Water Quality Specialist Supervisor
Location: Northeast Regional Office
Years with DEP: 9

What kinds of activities do you perform on a daily basis?

As a supervisor I provide guidance to the regulated community, department certified tank handlers and DEP staff concerning regulated and non-regulated storage tanks. This can include reviews of various reports demonstrating compliance with the Storage Tank and Spill Prevention Act or PA Clean Streams Law. I also initiate correspondence, supervise and train water quality specialists and environmental trainees, initiate escalated enforcement actions and perform field inspections when needed.

What kind of educational background do you have?

I have an associate's degree in applied science in natural resource conservation. I also have a bachelor's degree in geologic and environmental science from Susquehanna University.

What is the most challenging part of your job?

A challenging part of my job is convincing the regulated community to comply with rules and regulations. Many times they plead financial hardship, which is understandable in this economy. I try to relate to them that the regulations are not designed to cost them money but to protect human health and the environment. I also try to find less expensive alternatives to reach the same goal.

What got you interested in working in an environmental field?

I grew up on a small farm where we raised livestock and grew food for our own use. My immediate and extended family care about what happens to the environment. After a stint in the military, I went back to my roots, my spiritual beliefs and a love of the outdoors and decided I wanted a career in the environmental field. I wanted to be in a position where I could make a difference in the community. I felt the best avenue for doing that would be to secure a position in an environmental regulatory agency.

What is the most rewarding part of your job?

It is rewarding to know that what I do, in some small measure, protects the environment and human health. To know at least in northeastern PA I am working toward ensuring future generations have access to clean water, soil and air. It is also rewarding when the regulated community says thank you for doing what I do-what we all do.

What advice do you have for someone thinking about a career in environmental science?

Make sure environmental science is what you want to do. It is hard work and long hours to get an environmental science degree. Be prepared to have two or more labs a week. If you are in high school be sure to take a lot of math, science and English classes. Above all else you must have a love of the outdoors as that is where your work will take you.



Name: Dr. Pamela J. Higgins
Job Title: Special Assistant to Laboratory Operations
Location: Bureau of Laboratories
Years with DEP: 8 months

What kinds of activities do you perform on a daily basis?

I assist in developing and testing new analytical methods, research potential grant opportunities and unique environmental inquiries from other parties, and prepare technical reports and presentations related to Bureau of Labs activities.

What kind of educational background do you have?

I have a bachelor's degree in chemistry and biology from DeSales University as well as a doctorate degree in biochemistry from University of Notre Dame.

What is the most challenging part of your job?

The complexity of determining efficient and effective methods to analyze the health of the environment and its potential impact on the public is very challenging.

What got you interested in working in an environmental field?

I became interested in working in the environmental field due to the importance of applying sound science to provide accurate information about the multiple environmental issues that are discussed in the media and by governing bodies.

What is the most rewarding part of your job?

This job is never boring. There is always something new on the horizon regarding analytical techniques or emerging environmental contaminants.

What advice do you have for someone thinking about a career in environmental science?

Concentrate on building observational, analytical and critical thinking skills. Be open to learning new techniques outside of your field, as environmental science often involves the integration of chemical, physical, biological and mathematical fields to different degrees.

I would also recommend continuing technical training through courses in radio-analytical methods and spectroscopy software application as well as webinars regarding elemental analysis and water quality standards.

Earth Day 2012



Career Profile

Name: Randy Farmerie
Job Title: Professional Geologist Manager
Location: Northcentral Regional Office
Years with DEP: 22 ½

What kinds of activities do you perform on a daily basis?

I oversee a group of environmental professionals that are responsible for the oversight of the investigation and remediation of contaminated sites, especially brownfields sites that may be redeveloped. The work involves conducting field inspections of spill sites, collecting environmental samples, overseeing soil boring and monitoring well installations, interpreting groundwater data, monitoring remediation systems, and reviewing reports that demonstrate that the cleanups have been completed.

What kind of educational background do you have?

I have a bachelor's and master's degree in geology from Penn State and Kent State, respectively.

What is the most challenging part of your job?

It is difficult to work with people from both the regulated community and private citizens that have strong opinions. Sometimes, citizens have a belief about what should be done even though the regulations and science may not back up that opinion. It can also be difficult to explain complicated environmental issues in Lehman's terms so that citizens can understand.

What got you interested in working in an environmental field?

It was actually the first geology job I was offered, which had been my primary interest. Once I got the job, the opportunity to try to clean up the environment and provide a safer environment for everyone is what kept me in the environmental field.

What is the most rewarding part of your job?

Observing sites that are severely contaminated being cleaned up to safe levels and returned to productive use is very rewarding.

What advice do you have for someone thinking about a career in environmental science?

A broad background in a science, especially chemistry, geology and engineering is useful. Consider your surroundings, there is a good chance that there is an environmental project nearby; ask questions about what is going on and why.

Earth Day 2012



Career Profile

Name: Rex A. Miller
Job Title: Environmental Emergency Response Manager
Location: Southeast Regional Office
Years with DEP: 24

What kinds of activities do you perform on a daily basis?

I receive environmental incident notifications from various federal, state, county, municipal entities, regulated facilities and citizens. I also coordinate the appropriate response to incidents utilizing DEP and any additional resources necessary to ensure protection of public health, safety and the environment.

What kind of educational background do you have?

I have a bachelor's degree in environmental resource management from Penn State.

What is the most challenging part of your job?

The most challenging part is the operation and maintenance of a 24/7/365 system for the rapid acquisition of pertinent factual incident data, evaluation of unmet needs, communication of needs to resources and dispatching resources to incident for assessment, mitigation, documentation and assignment for long term remediation. All of that must be managed while trying to maintain efficient and effective procedures and dealing with some reluctant and unwilling entities.

What got you interested in working in an environmental field?

As an outdoorsman and Boy Scout from a very young age, I enjoy hunting, trapping, fishing and camping. Observing the degradation of pristine mountain ecosystems as result of coal mining in southwestern PA has also inspired me to work in this field.

What is the most rewarding part of your job?

It is rewarding to abate a potential major pollution event by effectively coordinating an emergency response to a large scale release and mitigating the impact to the public health, safety and the environment.

What advice do you have for someone thinking about a career in environmental science?

Be well rounded, gain an understanding of all environmental disciplines and the ramifications each has on the others. I prefer to focus on preventing unnecessary environmental degradation, as opposed to remediation after the fact. An ounce of prevention is worth a pound of cure.

Earth Day 2012



Career Profile

Name: Robert K. Lewis, Jr.
Job Title: Environmental Group Manager, Hazardous Sites Cleanup Program
Location: Northeast Regional Office
Years with DEP: 25 ½

What kinds of activities do you perform on a daily basis?

I manage a staff of nine technical professionals that oversee the cleanup of state and federal superfund projects. Some of the projects we get involved with include soil clean up and groundwater remediation projects. We recently entered into an agreement with two companies to construct over 20 miles of waterline in four different townships to provide water to over 220 homes that were affected by groundwater contamination. The two companies will also be remediating soil and groundwater. The one company is using a technology called electrical resistance heating (ERH), to clean up trichloroethylene, a degreasing compound that was prevalently used by metal fabricators over the years. The ERH cleanup is one of the first uses in Pennsylvania on this scale. We were also recently involved with a case concerning two children with confirmed diagnosis of Clostridium Difficile, a bacterium that can cause severe colon problems and even death. The parents thought the children were affected by the flooded soccer fields. We worked with the Agency for Toxic Substances and Disease Registry, the Center for Disease Control and the PA Department of Health to evaluate the potential for the two children to be affected by the soccer fields that were flooded. Every day is very different and challenging.

What kind of educational background do you have?

I have a bachelor's degree in biology and chemistry.

What is the most challenging part of your job?

Working through the variety of regulations required to complete a project is very challenging. Projects often require coordination between several DEP programs and other agencies at the state and federal level, including the PA Department of Transportation, the PA Department of Health, the US Environmental Protection Agency, the Center for Disease Control, the Agency for Toxic Substances and Disease Registry and the US Army Corps of Engineers.

What got you interested in working in an environmental field?

When I was a young lad I spent a great deal of time with our family camping, boating, fishing and hunting in Pennsylvania, New York and Canada. I loved the outdoors and my father taught me about many aspects of the environment, including types of trees and varying species of birds and animals in Pennsylvania. In 1968, Dr. Maurice Goddard was in town to dedicate the opening of Frances Slocum State Park. My neighbors and I went over to the park early in the morning because we had heard they had stocked the new lake with some large fish. We did not catch any large fish when a thunderstorm swept in. My neighbors and I rushed up to the park office to take shelter. There was a stately looking gentleman who introduced himself as Dr. Maurice Goddard. He offered to take us back to our homes, fishing equipment and all! I had no idea who Dr. Maurice Goddard was at the time. As we rode back to our homes, he talked to us about the fishing and also about forestry and state parks. He was very personable and you could tell he loved to teach. His dream and vision was to have a state park within twenty five miles of every person in Pennsylvania. Our parents invited Dr. Goddard to stay for a picnic and he graciously accepted. I was amazed later to find out from my parents who Dr. Goddard was. He had sparked my interest in the environment even more and I was amazed at his vision for parks, forestry and the environment in Pennsylvania. He helped create and was the first Department of Environmental Resources Secretary.

What is the most rewarding part of your job?

It is rewarding to protect people from soil and groundwater contamination and working with various state and federal partners on our projects. I also love teaching people to be good stewards of the environment; cleaning up the environment once it is contaminated takes time, energy and money.

What advice do you have for someone thinking about a career in environmental science?

The environmental science field has changed dramatically over the past couple of decades. There are new technologies to clean up the environment, including cleaning up soil, air and water. There are new sampling and testing methods. More is being discovered about chemicals that have been used for decades and are a threat to the human health and the environment. There are new areas that have become more important to understand like vapor intrusion and how chemicals migrate in the soil pore space. Marcellus Shale and the search for natural gas are on the forefront. The environment is constantly changing. Therefore, we are challenged to continue to learn more about the environmental field as we work in it.

I would encourage a college student to get environmental life experience through an internship. DEP offers varying internship opportunities. The department oversees many various aspects of the environment through our varying programs. We regulate air, water, waste, soil and minerals such as oil and gas, coal and stone. The oil and gas field and fracking is relatively new with the exploration of the Marcellus Shale. I would encourage a student to learn more on this subject. There are two fields that will continue to need staff in upcoming years. Those fields include geology/hydrogeology and engineering. There are various types of positions within DEP. They include water specialists, air specialists, waste specialists, soil scientists, chemists, biologists, engineers and geologists/hydro-geologists. I would encourage a student to learn which unique area they may be interested in and possibly take more courses in that particular area or possibly major in that area.

Earth Day 2012



Career Profile

Name: Stephan Brown
Job Title: Radiation Health Physicist I
Location: Southeastern Regional Office
Years with DEP: 20

What kinds of activities do you perform on a daily basis?

I inspect the safe use of radioactive materials at all types of medical and industrial facilities in Southeast and Northeast Regions. I am also a major contributor to the region's emergency response. In that capacity, and in my previous position in the storage tanks program, I have been the on-scene technical coordinator oils spills, hazardous material releases, and multiple other environmental emergencies that occur at all hours of the day and night, on weekdays and on weekends. I have also trained multiple employees in these areas.

In addition to my work at DEP, I work for the U.S. Coast Guard – Atlantic Strike Team to the national response to the environmental resulting from Hurricane Katrina and Deepwater Horizon (BP spill in the Gulf of Mexico).

What kind of educational background do you have?

I have a bachelor's degree in chemistry with a minor political science from the University of Pittsburgh. I also have certificates in emergency management and homeland security from Delaware County Community College.

What is the most challenging part of your job?

It can be difficult to achieve a work-life balance while contributing to DEP's radiation protection and emergency response programs and meeting my commitment to the U.S. Coast Guard.

What got you interested in working in an environmental field?

Although it is not possible to "save the world" while working for the DEP, it is possible to improve the environment by doing the best job possible wherever assigned.

What is the most rewarding part of your job?

It is rewarding to see our work make a real difference is being made in the environment and in peoples' lives.

What advice do you have for someone thinking about a career in environmental science?

Always do your homework first and find the area that you most enjoy and where you can do the most good.

From Stephan's Supervisor (June 2010): Stephan Brown is working in the Gulf of Mexico this week instead of DEP's Southeast Regional Office in Norristown. He's been there since May 15, assigned to the U.S. Coast Guard's in-situ burn group operating out of Venice, LA, and working five miles from the BP oil spill site.

When he's in Norristown, Brown works in the regional Radiation Protection program and is a trained emergency responder, but when he's on military leave from the department, he's Petty Officer 1st Class Brown, a marine science technician, who is currently deployed for 60 days to respond to the nation's worst environmental catastrophe.

Living and working at sea on the M/V Premier Explorer, Brown is a safety coordinator assigned to a fleet of Coast Guard and private vessels that tow booms to collect and then burn the oil that is floating on the surface of the Gulf. He's also training contract employees and Coast Guard personnel to conduct air monitoring from the diving vessel.

Brown's career with the department has prepared him for environmental disasters. For 16 of the 18 years that he's been with DEP, he's been part of the region's Emergency Response Team, and was among its members who worked on the 2004 Athos I oil spill on the Delaware River.

He's had almost two decades of experiencing what petroleum products can do when they leak into groundwater or spill into surface water. Prior to joining the radiation protection group, Brown worked in the storage tanks section of the region's Environmental Cleanup Program. During a three-week Coast Guard deployment in 2005, he was in Plaquemines Parish, Louisiana, dealing with oil releases caused by Hurricane Katrina.

This is the first time, however, that the Philadelphia resident has been part of a response team that has used controlled burns to address a spill. E-mailing his DEP co-workers from aboard ship, he reports that the fleet is working long days and late into the night, burning off oil to keep it from reaching the fragile wetlands along the coast. His co-workers appreciate the magnitude of the task, and look forward to his safe return.



Name: Sunil Desai
Job Title: Environmental Engineer
Location: Southcentral Regional Office
Years with DEP: 31

What kinds of activities do you perform on a daily basis?

I coordinate and oversee wastewater projects from facility planning through construction as well as review and approval of Act 537 Plans (Official Sewage Facilities Plan). I am responsible for review and approval of design of wastewater facilities and issuing permits (Water Quality Management Part II Permit for construction and operation of Wastewater Facilities). I also conduct construction inspections including review of change orders of Pennvest funded wastewater facilities. After construction, I evaluate project progress to determine whether the Certification of Performance may be approved. I manage many Chesapeake Bay upgrade projects and difficult compliance cases.

What kind of educational background do you have?

I have a bachelor's and master's degree in civil engineering from the University of Bombay, India and the University of Pittsburgh, respectively.

What is the most challenging part of your job?

It is challenging to work with a variety of different circumstances and project innovation particular to the site, stream and community requirements. Allocating proper time and still completing the review of all projects can be difficult, too.

What got you interested in working in an environmental field?

Respect for clean water and environmental health motivated me to work in this field. I have seen this need close up in many areas of my life and am constantly rewarded when needed projects are completed.

What is the most rewarding part of your job?

I feel proud every day knowing that our actions improve water quality and public health of all people in the commonwealth. We work and succeed as a team and knowing that a belief in protecting the environment is shared within our office is most rewarding.

What advice do you have for someone thinking about a career in environmental science?

Pick a career path you like and find the place best suited for you to contribute to a common goal.



Name: Susan K. Banks
Job Title: Oil and Gas Inspector
Location: Southwest Regional Office
Years with DEP: 15

What kinds of activities do you perform on a daily basis?

I oversee gas storage fields, ensuring inspections are carried out according to the laws. I am in the process of establishing a protocol for inspecting all gas storage fields so that all operators are aware of requirements under the recently passed laws. I also assist in gas drilling site inspections where needed, primarily in Greene and Washington Counties, where many Marcellus wells are being drilled.

What kind of educational background do you have?

I have a bachelor's degree in geological engineering from South Dakota School of Mines and Technology.

What is the most challenging part of your job?

Keeping up with the constant changes in laws and regulations is a big challenge. In addition, we have to respond in a timely manner to issues that may come out of Harrisburg, to complaints from property owners and submit all our inspections reports. We also have to use our people skills in dealing one on one with individuals and company representatives when issues come up and assist our operators in ensuring they are complying with all regulations and laws while drilling wells.

What got you interested in working in an environmental field?

I have worked in the oil and gas area for over 30 years and when I joined DEP over 15 years ago, it was a natural progression of experience that included working in industry and consulting. I have had the pleasure of working with some of the finest professionals in DEP who also have this diverse experience. The changes over the past few years in regards to oil and gas laws and regulations have been phenomenal. I am glad to be able to work with operators, answering their questions and assisting in any way to ensure the environment is protected.

What is the most rewarding part of your job?

I recently took a lateral move from geologist in permitting to an oil and gas inspector. I love being back out in the field, learning the new compliance laws, and working with the operators. I also am learning new drilling methods as technology has changed quite a bit in a few short years. It is so good to be on a learning curve which helps to keep the mind sharp and helps me to learn yet another aspect of the business. I see firsthand how many operators are going above and beyond protecting the drilling locations, using state of the art equipment and methodology.

What advice do you have for someone thinking about a career in environmental science?

Diversify!! Learn more than one skill set and definitely take on new responsibilities in other areas to learn as much as possible and make you a valuable employee in more than one subject.

I serve as an alumni recruiter for my alma mater and I really enjoy meeting students who want to pursue engineering or the sciences. I suggest getting a minor as well as a major and finding good internships or co-op programs that will give you good technical experience.

Learning any new job may involve long hours and time working in the field. Hands-on experience is a must. Don't be afraid to get dirty! Take advantage of any and all opportunities that will enhance your career opportunities.