ENVIRONMENTAL ENGINEER: SAVING THE EARTH

Global warming. Toxic waste. Air and water pollution. All of these terms and their potentially devastating results are believed to be human-caused. That's right: lay the responsibility squarely at our feet for declining animal populations and their habitats, filthy air, and gargantuan landfills, and that's just the tip of the iceberg, pun intended. If all of us are guilty, to varying degrees, for "fouling our nest", is there anyone out there willing to try to save humanity and the Earth from us? Where is a super-hero when we need one?

In the case of the environment and our negative impact on it, the super-hero just may be called an environmental engineer. The Standard Occupational Classification Manual states that environmental engineers "research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology".

In the recent Green Jobs Survey conducted by Utah and five of its neighboring states, environmental engineer emerged as a "green job" meaning it is a work activity:

> *"that promotes products or services that improve energy efficiency, expands the use of renewable energy, or supports environmental sustainability."*

Recent articles about environmental engineers illustrate just how innovative they can be when they attempt to save us from ourselves. Engineers have published the first poplar tree DNA code which may have possibilities for sustainable energy; a software program has been developed for managing pollutants from storm water runoff; a General Motor's engineer heads a program that repurposes scrap

cardboard in to sound absorption material for cars. Now that's thinking out of the box, isn't it?

How does one get to be a super-hero, excuse me, environmental engineer? An entry-level job requires at least a bachelor's degree. Most engineering programs involve a concentration of study in an engineering specialty, plus courses in mathematics, physical and life sciences. Engineers offering their services to the public must be licensed. Graduate-level training is mandatory for engineering faculty positions and some research and development programs. Many engineers pursue graduate degrees to learn new technologies and broaden their skills.

The occupation of environmental engineer is expected to have employment growth much faster than the average for all occupations. They will be needed to help companies comply with environmental regulations and to develop methods of cleaning up environmental hazards. A paradigm shift—preventing problems from occurring rather than controlling those that already exist--should increase demand for environmental engineers.

Occupational Wages-Published June 2011 (data from May 2010) for Environmental Engineers

Area Name	Hourly Inexperienced	Hourly Median	Annual Inexperienced	Annual Median	Training Level
Eastern	$31.87	$38.66	$66,290	$80,400	Bachelor's degree
Logan MSA	$26.06	$35.32	$54,200	$73,470	Bachelor's degree
Ogden-Clearfield MSA	$33.69	$44.34	$70,080	$92,230	Bachelor's degree
Salt Lake City MSA	$27.92	$38.82	$58,080	$80,740	Bachelor's degree
United States	—	$37.04	—	$77,040	Bachelor's degree
Utah	$28.32	$39.52	$58,910	$82,200	Bachelor's degree

Resources:

- http://bls.gov
- http://jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do
- American Academy of Environmental Engineers
- Association of Environmental Engineering and Science Professors