AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

SMALL BUSINESSES CREATING JOBS AND PROTECTING THE ENVIRONMENT

HEARING

BEFORE THE

SUBCOMMITTEE ON REGULATORY REFORM AND OVERSIGHT

OF THE

COMMITTEE ON SMALL BUSINESS
HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

WASHINGTON, DC, APRIL 22, 2004

Serial No. 108–60

Printed for the use of the Committee on Small Business

Available via the World Wide Web: http://www.access.gpo.gov/congress/house

U.S. GOVERNMENT PRINTING OFFICE

94–111 PDF WASHINGTON : 2004

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON SMALL BUSINESS

DONALD A. MANZULLO, Illinois, *Chairman*

ROSCOE BARTLETT, Maryland, *Vice Chairman*
SUE KELLY, New York
STEVE CHABOT, Ohio
PATRICK J. TOOMEY, Pennsylvania
JIM DEMINT, South Carolina
SAM GRAVES, Missouri
EDWARD SCHROCK, Virginia
TODD AKIN, Missouri
SHELLEY MOORE CAPITO, West Virginia
BILL SHUSTER, Pennsylvania
MARILYN MUSGRAVE, Colorado
TRENT FRANKS, Arizona
JIM GERLACH, Pennsylvania
JEB BRADLEY, New Hampshire
BOB BEAUPREZ, Colorado
CHRIS CHOCOLA, Indiana
STEVE KING, Iowa
THADDEUS MCCOTTER, Michigan

NYDIA VELÁZQUEZ, New York
JUANITA MILLENDER-MCDONALD, California
TOM UDALL, New Mexico
FRANK BALLANCE, North Carolina
ENI FALEOMAVAEGA, American Samoa
DONNA CHRISTENSEN, Virgin Islands
DANNY DAVIS, Illinois
GRACE NAPOLITANO, California
ANÍBAL ACEVEDO-VILÁ, Puerto Rico
ED CASE, Hawaii
MADELEINE BORDALLO, Guam
DENISE MAJETTE, Georgia
JIM MARSHALL, Georgia
MICHAEL MICHAUD, Maine
LINDA SANCHEZ, California
BRAD MILLER, North Carolina
[VACANCY]

J. MATTHEW SZYMANSKI, *Chief of Staff*
PHIL ESKELAND, *Policy Director*
MICHAEL DAY, *Minority Staff Director*

SUBCOMMITTEE ON REGULATORY REFORM AND OVERSIGHT

EDWARD SCHROCK, Virginia, *Chairman*
ROSCOE BARTLETT, Maryland
SUE KELLY, New York
TRENT FRANKS, Arizona
JEB BRADLEY, New Hampshire
STEVE KING, Iowa
THADDEUS MCCOTTER, Michigan

[RANKING MEMBER IS VACANT]
DONNA CHRISTENSEN, Virgin Islands
ENI F. H. FALEOMAVAEGA, American Samoa
ANÍBAL ACEVEDO-VILÁ, Puerto Rico
ED CASE, Hawaii
DENISE MAJETTE, Georgia

ROSARIO PALMIERI, *Senior Professional Staff*

CONTENTS

WITNESSES

	Page
Lindell, Mr. Craig, President, Aquapoint	4
Seydel, Mr. Scott, President, EvCo Research	6
Catron, Mr. Phil, President, NaturaLawn of America	8
Clevey, Mr. Mark H., Vice President, Entrepreneurial Development, Small Business Association of Michigan	10
Farland, Dr. William, Deputy Assistant Administrator for Science, Office of Research and Development, U.S. Environmental Protection Agency	12

APPENDIX

Opening statements:	
Schrock, Hon. Edward L.	33
Prepared statements:	
Lindell, Mr. Craig, President, Aquapoint	35
Seydel, Mr. Scott, President, EvCo Research	46
Catron, Mr. Phil, President, NaturaLawn of America	49
Clevey, Mr. Mark H., Vice President, Entrepreneurial Development, Small Business Association of Michigan	54
Farland, Dr. William, Deputy Assistant Administrator for Science, Office of Research and Development, U.S. Environmental Protection Agency	56

SMALL BUSINESSES CREATING JOBS AND PROTECTING THE ENVIRONMENT

THURSDAY, APRIL 22, 2004

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS
SUBCOMMITTEE ON REGULATORY REFORM AND OVERSIGHT
Washington, D.C.

The Committee met, pursuant to call, at 10:30 a.m. in Room 2360, Rayburn House Office Building, Hon. Ed Schrock, [chairman of the Committee] presiding.

Present: Representatives Graves, Ballance, Kelly, Majette and Velazquez.

Chairman SCHROCK. Good morning everyone. The hearing will come to order.

Good morning, ladies and gentlemen. We are here today to talk about an often overlooked part of Earth Day, which if you did not know is today, the private sector's contribution to bettering our environment. We also have a reason to celebrate. Over 94 percent of our population is served by water systems that report no violations of health-based standards. Our air quality is equal to or higher than that in Europe. There has been a 55 percent decline in the release of toxic emissions since 1988, and since 1980, emissions of the six principal air pollutants have been cut 48 percent while the economy's GDP grew 160 percent, and energy use rose 42 percent.

Some of those successes have come as a result of entrepreneurs in our society. Among the innovative and fast-growing small business sector, many businesses are dramatically increasing the efficiency and productivity of our natural resources.

Whether creating technologies to reduce pollution, increase recycling and recovery, or leave a smaller footprint on the environment, these job creators are also creating environmental benefits. These small businesses have been nicknamed Green Gazelles.

I am pleased to have several of those businesses with us today, each of whom deserves special praise for their contribution to our economy and to our environment. I truly believe that solutions to many of our environmental problems will come from entrepreneurs like the three of you who are with us today.

The Environmental Protection Agency has joined us as well today,and I thank Dr. Farland for his appearance with us.

Today, we get to look at EPA's efforts in an area not always associated with the agency. We get to examine not EPA's command and control approach to regulating businesses, but instead we will look at the programs that incentivize environmental improvements, pro-

vide opportunities for partnerships with the agency, and encourage businesses to voluntarily make environmental strides.

I really appreciate you all coming here today, and I look forward to your testimony, and then, of course, the question and answer period.

At this time I am delighted to yield to Ms. Velazquez from New York.

Ms. VELAZQUEZ. Thank you. Thank you, Mr. Chairman. In observance of Earth Day, it is important to recognize the contributions that are nation's small businesses have made to the environment. It is possible to create federal policies that will benefit not only small businesses, but also our environment. The two actually go hand in hand, and this hearing today remind us of that.

Small businesses are the number one job creator in this country, creating 75 percent of all new jobs added to the U.S. economy. A good portion of these jobs result in a safer and healthier environment. In fact, small firms produce 2.4 times as many innovations as their large competitors, and higher, 39 percent of high-tech workers such as scientists, engineers, and computer workers; in addition, highly innovative, new firms create disproportionately greater share of net new jobs than those start-up firms with lesser innovation intensity.

It is our small business sector that is excelling at protecting the environment through innovation. Whether it is waste management, energy conservation or architectural development, Green Gazelles are working to improve the environment by finding new advance ways to do just that.

While the Green Gazelles are fast growing companies, they are also the quick producers of innovative new products and services that are solving our country's environmental problems. A large number of Gazelles are responsible for creating technologies to reduce pollution and are increasing recycling and recovery.

Many of these Gazelles have helped to heighten the efficiency and productivity of our resources and they are super job creators. It is the innovative new ideas brought to the marketplace by talented entrepreneurs that result in not only more job creation but also in a brighter economic future.

However, despite the tremendous contributions of these companies, they are still facing an array of challenges. This unique sector that helps paint the way towards our country's environmental health has trouble finding access to capital. They support proposals that will make it easier for them to raise the money they need to grow, such as providing them with the flexibility to retain some of their taxes for financing during high growth periods.

The Gazelles are also in need of access to long-term, low-interest loans from either public or private sources, and understand the benefits of strong 7(a) and 504 lending programs. They support tax initiatives that ease the process for businesses to purchase new energy-efficient equipment and power devices to replace outdated machines.

They are also behind a federal tax credit for small business purchases of environmental friendly products and services. Green Gazelles are interested in federal procurement policies that will give consideration based on the environmental qualities of their prod-

ucts. They need a strong environmental protection agency, small business innovation research program to provide funds for innovative research on environmental problems.

It is apparent that innovative technologies lead the way to more cost-effective environmental protections on job creation for our economy. The unique sector of Green Gazelles plays a vital role in making this happen, resulting in an improved economy and improved quality of life.

The need for small businesses to respond to environmental concerns with new solutions is growing, and we need to encourage this process. Our nation's environmental problems can be solved by innovative new technologies, most of which are created by our nation's small businesses if we help them to overcome some of these challenges. We must work to ensure that federal policies benefit small businesses in a way that will enhance the overall environmental health of our nation.

I want to thank the small business owners that are here for taking time out of their schedule to talk to us, and I look forward to hearing their testimony.

Thank you.

Chairman SCHROCK. Thank you, Ms. Velazquez.

Judge Majette, do you have an opening statement?

Ms. MAJETTE. Yes. Thank you, Mr. Chairman.

I would like to take this opportunity to introduce Mr. Scott Seydel, CEO and board chairman of EvCo Research and the president of Seydel Companies. EvCo research, located in Atlanta, Georgia, is a model business, a profitable venture that creates wealth and jobs while at the same remaining true to its deep sense of social and environmental responsibilities.

EvCo's natural step sustainable principles contribute to a culture in which the success of business correlates to an improvement and benefit for all of society.

The value of EvCo's work is substantial. According to the EPA, nearly 95 percent of the 24.2 million tons of plastic waste generated each year goes unreclaimed, but EvCO reclaims scrape plastic beverage and water bottles, and uses them to make a liquid coating that is then used to recoat corrugated boxes that can then be recycled six to 12 times.

I wish for the continued success of EvCo as it works toward creating a more sustainable waste management system, and I think Mr. Seydel for his leadership of EvCo Research and his vision for a bright future for all of America. I look forward to hearing his testimony this morning, and I look forward to the great—for him continuing the great work that he has begun in Atlanta, Georgia.

Welcome. Thank you.

Chairman SCHROCK. Thank you, Judge.

We thank all of our witnesses for being here. Our first witness today is Craig Lindell from Massachusetts, and Congressman Barney Frank has agreed to come and introduce Mr. Lindell.

Mr. FRANK. Thank you, Mr. Chairman, to you and the ranking member for calling this hearing and for the courtesy of letting me as a nonmember introduce someone that I am really very proud of, proud of in the sense that he comes from the area I am privileged to represent. I deserve absolutely no credit for his good work, but

you know, we sometimes get blamed for things that are not our fault, so I do not mind——

[Laughter.]

Mr. FRANK.—so I do not mind offsetting that sometimes with a little reflective glory that is unearned.

Mr. Lindell is really extraordinarily well suited to be make this presentation, as indeed due to the work he has done, because he is himself a man with a business background. He comes from a family that has had a distinguished background in southeastern Massachusetts in the City of New Bedford for some time, both in business and even the politics. He has a great grandfather who carried the title of senator, which might be of interest to my colleague from Georgia.

And what he has now done is really something that we very much appreciate, which is to take his expertise as a businessman, and his interest in technology, and put them into the service of the community by demonstrating how we can make technology work for us, make it pay for itself ultimately.

But it is also important that we are here, and that we are here with EPA, and I think too often people take this notion of conflict between the private and public sectors, and I think we understand. Unless we are able to work out a series of partnerships between the private and public sectors in which each makes a contribution that only it can make, we will not get anywhere.

And the notion that the government and the private sector are enemies is a great outgrowth of progress, so I am very grateful to Mr. Lindell for his own marriage of economic and business skills with his environmental concern, and his technological achievement, and his really exemplifying for us the importance of this. And I thank you for giving all of these people a chance to help us form the right policy that is going to carry us forward.

Chairman SCHROCK. Thank you very much, Congressman.

Before we begin reviewing testimony from our witnesses, I want to remind everyone that we would like each witness to keep your oral testimony to five minutes if you can. In front of you on the table you will see a box that will kind of let you know when your time is up. When it lights yellow, you have one minute. And when five minutes has expired a red light appears, the trap door opens, and you will know that it is over. So once the red light is on the Committee would ask if you could wrap up your testimony.

Mr. Lindell, after that introduction, welcome. The floor is yours.

STATEMENT OF CRAIG LINDELL, AQUAPOINT, NEW BEDFORD, MA

Mr. LINDELL. Thank you, Mr. Chairman.

Aquapoint is a waste water treatment company in pursuit of an infrastructure. Most people are in pursuit of a market. But we think that there is an infrastructure out there that will literally pay for itself. It is a fairly classic start-up, five or six years of losing money, five or six years of breaking even, now about a 30 percent annual growth rate for the last three or four years. We are expecting to double or triple probably in the next couple of years.

Most of our 17 employees own equity. I actually capped my equity in the company at 50 percent. We subcontract all our manufacturing. We are trying to be smart business.

What makes us different is we chose a path contrary to the rest of the industry. The reason has to do with Earth Day. We now know what a few glimpsed thirty years ago, and that is that we have to live within the carrying capacities of the natural systems of the planet.

Infrastructure is no longer about the delivery of water and the disposal of waste water. Infrastructure is about integrated water resource management. It is about some form of adaptive relationship between human communities and the earth's supporting systems.

Each adaptive situation is different. The wastewater we treat to irrigate a park is different from the water we discharge to the Potomac. An old crab house in the Potomac could add treatment and dramatically increase its property values. For a supermarket, treatment is a one-year return on investment. Every customer becomes a market of one. It is an interesting problem.

Aquapoint is structured—sorry about that. I apologize. I got my pages mixed.

Every customer becomes a market of one. This is why the EPA acknowledges the limits of our current regulatory framework are at hand, and the complexity of the issues require a change in paradigm. That is the Office of Water 2001.

Mike Leavitt calls it a new sociology enabled by new technology. What is critical is that we provide infrastructure, an infrastructure flexible and robust enough to maximize the potential of economic development and asset appreciation, and designed to minimize the impact on natural systems and sustain the resources that provide for us, and it has to be affordable. There is no money coming out of Washington that I can see. So the trick is to design an infrastructure as such.

The variety of dynamic and changing characteristics between the communities and the water resources will require a matrix of technology, skills, related products, and services as variable and adaptive as conditions the community must address.

Our current onsite wastewater systems basically are large polluter of our groundwater, and central systems are large drainage—infiltration is a large drainage of our groundwater supply.

Aquapoint is structured to provide this matrix with knowledgeable enterprise partners, and a suite of technologies that are modular, flexible, linked, affordable, and readily deployable. This is an infrastructure that you can have on a just-in-time basis.

Its adaptive small infrastructure on a just-in-time basis and for a fraction of the cost of conventional sewer, and that adaptive small infrastructure is now being considered by the Water Environment Federation. It is in the process of considering the change of the name of one of its—that is not for me, is it?

[Laughter.]

Chairman SCHROCK. No, but it is not a bad idea.

Mr. LINDELL. Aquapoint's treatment process is a biologically stable, and they are less management-intensive. They require less electricity. They produce a fraction of the biosolids of conventional

technologies. Some counties in the south are already zoning for distributed sewer where they know they are not going to get money for central sewer.

Cape Cod has its own regulatory authority because the nitrogen levels on Cape Cod are damaging both to its groundwater and to its coastal environment. Mobil, Alabama will take waste water from an overloaded interceptor and treat it on location, and irrigate a park. It is a new EPA project, so mainframe systems are going to use distributive systems.

This is not about Aquapoint, but about what Aquapoint is learning in the marketplace. This is about the Green Gazelle premise that environmental preservation can be job and capital forming. It can be. Our average wage is over $60,000 a year. Releasing its potential is important to our economy and the natural systems whose limits we are beginning to strain.

Thank you.

[Mr. Lindell's statement may be found in the appendix.]

Chairman SCHROCK. Thank you, Mr. Lindell.

Mr. Seydel, you have already been introduced properly by the Judge, so the floor is yours. Welcome.

STATEMENT OF SCOTT SEYDEL, EvCO RESEARCH, ATLANTA, GA

Mr. SEYDEL. I have, and I really want to thank the Committee for having us here and getting a chance to tell what we know about small business and environmental protection, and my hat's off to Congresswoman Majette for that introduction. She actually gave my remarks before we start here.

Chairman SCHROCK. Then we will go right on to Mr. Catron then.

[Laughter.]

Mr. SEYDEL. I will go ahead and read them again for the record. My wife told me this morning that the way I talk I should give a two-and-a-half minute talk because it is going to take the whole five minutes to get it across.

EvCo is a really interesting company that was conceived about 10 years ago, and we spent about five years doing a lot of very high-level technical research to see what could be done using municipal waste as raw materials.

And Ms. Majette mentioned one of the projects that we work with, which is converting plastics that are going into the waste stream, mostly bottles and the cup you are drinking out of there, and food containers in your refrigerator. And as she mentioned, the vast majority of these products are going into the dump; not only are they going into the dump, but they are largely non-biodegradable, which means they are actually blocking the processes that work within our landfills and compost to make these materials more valuable as biological nutrients.

So what we have done is basically tried to figure out constructive ways that these municipal wastes can be used in a way where the energy and the resource that is invested in them can be used again to make another product. And we have done that very successfully.

In fact, we have four points that we follow very, very closely in our research, and that is, any product that we make, first of all,

has to be made out of a solid waste, a municipal waste that is recovered from the waste stream. The second thing is we have to recapture all of the energy and all of the resources that have gone into that product to begin with. Thirdly, we have to make sure that the product that we produce is itself recyclable or compostible or both; and then fourth, we do not make a product unless in selling and applying it, it solves a major environmental and sustainability problem.

As a typical example I would mention to you this morning, about two billion pounds of paper, of fiber from trees are used every year in making food packaging, perishable packaging, whether it is cardboard boxes that are full of fish and ice, or broccoli and ice, or whether it is cartons that you take your pizza home in, or things from the bakery. All of those are non-recyclable uses of pulp fibers, and most of those fibers are virgin fibers.

In other words, a tree is cut and has 100 days before it has been converted into paper, converted from paper into corrugated, corrugated into a box filled with chicken and ice, shipped to the Kroger store, and gone into the dump. That particular box, I think, as Congressman Majette pointed out, is usable, the fibers in that box are usable six to 12 times if you can recycle it.

So what we have done is we have made liquids that we can put on those boxes that are still water repellent. We have made them out of recycled materials, and they replace non-renewable petrochemicals that are used in those coatings now, and paraffin waxes which we largely import now from places like China where they have high paraffin petroleum content.

So we can right now take that two billion pounds of paper out of the waste hopper. There is another six billion pounds that are used in things like frozen food containers in your refrigerator, even Ben and Jerry's ice cream, we can convert those too because all of those can be repulpable and recyclable.

Now we are working on things like replacing copper chrome arsenates that are applied to lumber in order that they can be used outside to build decking or to build children's play grounds. Those poisons have been proven to be carcinogeneses and they are in the subterranean waters that are being piped back to people for consumption.

So those have already been banned and within a couple of years will be gone. We think we have a solution for replacing those products, and again it is made out of recycle materials.

So that is the EvCo story. You have got something in your trash heap that you would like for us to begin to work on, we have got a bunch of Ph.D.s down in Atlanta that would like to get their hands on it.

Thank you.

[Mr. Seydel's statement may be found in the appendix.]

Chairman SCHROCK. Great. Thank you very much. Fascinating subject. I live in Virginia Beach, and for years and years they took everything and took it to the dump. Now every two weeks Jude and I put out in front our house a 90-gallon blue container on wheels, and we are shocked at how fast that fills up every time, and for years and years and years that was going into a landfill somewhere, so it is an amazing process, and I appreciate what you do.

Mr. SEYDEL. We thank you. Those are our raw materials.

Chairman SCHROCK. Yes, that is great.

We are now going to hear from Mr. Phil Catron. Your name is very familiar to me. My first chief of staff was named Rob Catron from Florida. I guarantee you are not related to him. I am not sure you want to be, so you know.

[Laughter.]

Mr. CATRON. I am not going there.

Chairman SCHROCK. No, you are not going there.

Mr. Catron is the president of NaturLawn of America that is headquartered up in Frederick, Maryland. Congressman Roscoe Bartlett would love to have been here, but his schedule just does not permit that.

Mr. Catron holds degrees in agronomy from the University of Delaware, and plant science and herbicide physiology from Rutgers. And we are delighted to have you here. The floor is yours.

STATEMENT OF PHILIP E. CATRON, M.S., CPAg, NATURALAWN OF AMERICA, INC., FREDERICK, MD

Mr. CATRON. Thank you, Congressman Schrock, and members of the Committee. I do appreciate this time very, very much.

There is a couple of traits that all Gazelles or entrepreneurs share in common, and the one that I think you can focus in on is that we identify a need, and then try to fill that niche. And as you hear from all of us, this is kind of where I think all of our businesses are coming from.

And then on top of that it is sometimes easier to show people what you are doing as opposed to try to explain what you are doing, and educate them to train or to change their ways.

So with that said, in 1987, NaturaLawn of America started in the basement of my home as an alterative to a chemical lawn care company, or a traditional chemical lawn care company, which I had been a part of for 10 - 12 years. Not that chemical lawn care is bad, there is just an alternative way.

And so hysterically—hysterically—historically there was——

Chairman SCHROCK. Leave the hysterics to Congress, right.

Mr. CATRON [CONTINUING] The basic approach to lawn care is that one program fit every lawn out there, so whether or not you needed material that was applied to the property, it is very tantamount to if you cut your finger instead of putting a band-aid strictly on the cut, you would wrap your entire body in gauze, and that just did not seem to make a lot of sense.

So promoting that was the green myth concept, that all lawns could be 100 percent weed free and green year around, and quite frankly, that is a marketing myth. It just does not exist. I wish it did, but it does not.

So we started the company with that in mind, and obviously any new start-up reaches or hits some walls, some barriers. One, because we were taking a totally different approach to a traditional chemical. We wanted to be organic and natural biological. There were no products that would compete in the scale that we needed to. In other words, it had to be economic, but you had to give results.

And yes, there were 100 percent natural organics out there, but they did not fit the economic scale, nor did they fit the results.

So we scientifically blended natural organics with other components of synthetic organics to come up with a program of an organic-based product line that we have developed on a proprietary nature with NaturaLawn of America. That enabled us to wean lawns that had been treated chemically for years off of the total chemical basis to a closer and closer 100 percent natural organic-based program.

The second hurtle, if you will, was the consumers tend to think that if a little is good, a lot is better. We call that the glub method. You know, one or two glubs, aaah, put a little bit more in there, and then we will try that. So there was an educational process that had to be done as well.

And thirdly, since there were no products, we kind of misnamed them or renamed them as organic-based. It was a term that had not been around and was not widely accepted, and it has now become virtually accepted across the national within our industry, which is kind of nice.

From a consumer's point of view, we did not know how we might be accepted, but over the past 17 years we have literally grown from a zero customer base to over 45,000 customers across the United States. We are operating in 25 states with 74 locations, and these are all francished locations. We generate in excess of $24 million a year and employ over 400 people.

One of the things that we really zero in on is our mission statement. It is based on three simple words: service, focus, and innovation, and the innovation is the fun part, and one of the things that I would like to introduce you to is that things that we are working on for the future that really tie in with, I think, EPA, it ties in with USDA, it ties in which all kinds of research is our goal is to be 100 percent food-grade fertilizer, 100 percent food-grade natural organic fertilizer, and we have got some stuff there already.

And then secondly, we are very heavy into the beneficial microbes that are already existing in the soil, and one of our latest developments is what we call NP, or no phosphorus. States have been basically regulating the use of phosphorus because of algae blooms and pond eutrophication. Three years ago we introduced a no phosphorus program. We have a proprietary microbe system that literally is put on our fertilizers that contain no phosphorus. These microbes work in the soil, because phosphorus is tied up in the soil, and as the plant needs it, it release it from the soil to the plant and then shuts down, so there is no excess phosphorus going into the soil.

I will wrap this up by saying over the years we have consistently been able to reduce the environmental impact that chemicals and pesticides have, and in 2002 alone, our latest statistics that came back, we have reduced the use of what we would call petroleum-based fertilizers by over 2.5 million pounds into the environment, and by synthetic pesticides by over a million gallons.

We are pretty proud of that fact and appreciate the time, and the ability to talk to you. Thank you.

[Mr. Catron's statement may be found in the appendix.]

Chairman SCHROCK. Thank you, Mr. Catron. Every day I learn a new statement, and I think today it is the glub method, right?

Mr. CATRON. Yes.

Chairman SCHROCK. That is pretty great.

Mr. CATRON. And we do have a franchise in Virginia Beach.

Chairman SCHROCK. Oh, do you? Oh, good. Oh, really?

Mr. CATRON. Yes.

Chairman SCHROCK. Okay, I may want to talk to you some time. Yes, great. That is why you brought him here, is that right? Okay.

Our next witness today is Mark Clevey. We are glad to have you here. Mr. Clevey is the vice president of Entrepreneurial Development, and Director of the Green Gazelle Development Project at the Small Business Association of Michigan, which I believe is in Lansing.

We are delighted to have you here. The floor is yours.

STATEMENT OF MARK H. CLEVEY, GREEN GAZELLE DEVELOPMENT PROJECT, SMALL BUSINESS ASSOCIATION OF MICHIGAN

Mr. CLEVEY. Thank you very much, Congressman Schrock.

My purpose today is to talk about an economic development in Michigan and how we are trying to grow more companies like the three you have just heard from. Our goal in this project is pretty straightforward.

We have teamed with the Center for Small Businesses in the Environment here in Washington, D.C. to look at barriers to growth for Green Gazelles, and let me just take a moment and define this so we are all clear on it.

From our view, a Green Gazelle is a cutting-edge, fast growing, small business that researches, develops and commercializes breakthrough environmentally conscious technologies. These are the companies in the United States that also tend to generate most of the new jobs, most of the new wealth, and most of the new technology in the country; so this idea of Gazelle is a special thing.

All small businesses are the background of our economy, but Gazelles are ones that are generating the new products and new technologies that are going to build the new industries that will offset those being offshored or impacted by globalization.

In Michigan, we lost 185,000 manufacturing jobs in the last two years. We are trying to grow green manufacturers as fast as we can, and that is the essence of the Green Gazelle project we are doing in the state.

Center for Small Businesses and SBAM, agree on something very clear, and that is this: that there will be no transition to an environmentally sound economy without Green Gazelles leading the way. These companies are the ones who take the risks, who will bet their children's college education on the deal. They are the risk-takers. They are the ones who bet it all. They are the backbone of our economy. They are the ones who make this country strong, and they are the ones who are leading the charge in the environmental area as well.

We have put together a program in the state that is a dedicated economic development and business development effort in collaboration with Michigan State University, a number of economic de-

velopers, and led by our organization, which is a 6,000-member small business organization in the state.

We make our living in our organization by having these 6,000 members pay us $165 a year in dues, and utilize the services and things that we provide. For Green Gazelles that includes a very, very dedicated effort into helping these companies get access to federal SBIR grants, to develop new technologies in collaboration with Michigan State University and others, a very dedicated effort in helping them overcome barriers to capital access, building business plans that are based on not just how they are going to meet their payroll, but how they are going to attract investors and take these companies public, helping them to get access to not Joe the banker, but discounted access to the best patent attorneys and best bankers in the state by aggregating them, and we use the power of these Green Gazelles to drive down prices and products and other things.

We recently won an award from the U.S. EPA, Energy Star Program, for our project that we did that I just want to take a moment with.

Our organization and myself went out and we funded the formation of a Michigan interfaith power and light organization, which is where new nonprofit made up of religious congregations across the state. We sent a team of auditors, energy auditors into each of those congregations, and they identify energy efficiency products that could be purchased, green products that could be purchased, and renewable energy opportunities that could be purchased.

We then take those and aggregate them into a market, and then we go out and negotiate discounted and bulk prices from Green Gazelles for those kinds of products; energy efficient light bulbs would be an example; buying wind power; buying recycled materials.

One of our project just looks at making recycling a cost product center—pardon me—a profit center by merging together different kinds of recycled materials from smaller congregations.

So we find that we can use our program to stimulate the market. We can use our program to bring to the table people who are looking for markets, and we use our program as a way to facilitate the growth of Green Gazelles that respond to that market.

We are not unique. There are organizations across the United States that could be doing what we are doing, and we are working for the Center for Small Businesses in the Environment to duplicate that. We are working with Jerry Lawson at the EPA Energy Star Program to showcase this model and we are working with the National Small Business Association here in Washington to work with our sister organizations in 23 other states to duplicate this model.

Again, it is a business development model. Our success matrix is, is the small Green Gazelles that is being created or retained or expanded. That is what we are looking at, expanding their network, and basically we do whatever needs to get done to help them grow, including capital access barriers, removing regulatory barriers, stimulating new markets, and coming to Washington and educating people about what is going on.

Thank you very much.

[Mr. Clevey's statement may be found in the appendix.]

Chairman SCHROCK. Great, and we thank you for doing that. Fascinating concepts, especially your work with churches and synagogues. Great idea.

Our last witness today is Dr. William Farland. Dr. Farland is the Deputy Assistant Administrator for Science in the Office of Research and Development at EPA. Dr. Farland holds a doctorate degree from UCLA in cell biology and biochemistry, a master's degree in zoology from UCLA, and a bachelor's degree from Loyola University in Los Angeles. I know where it is, I have been there, that is where my wife is from, so I do not know why I stuttered.

Delighted to have you here, and the floor is yours.

STATEMENT OF WILLIAM H. FARLAND, PH.D., OFFICE OF RESEARCH AND DEVELOPMENT, U.S. ENVIRONMENTAL PROTECTION AGENCY

Dr. FARLAND. Thank you, Mr. Chairman.

Good morning, Mr. Chairman, and members of the Committee. I am honored to appear before you today to discuss the U.S. Environmental Protection Agency's activities to support development and implementation of innovative environmental technologies, many of which emphasize support for small businesses.

The U.S. Environmental Protection Agency welcomes the interest of the Committee in this vital area. We believe innovative technologies lead to more cost-effective environmental protection and growth in jobs in the economy. More broadly, innovative technology can play an important role in moving to a model of environmental protection built on the principles of sustainable development, allowing us to achieve economic growth, and improve quality of life while protecting the environment.

The EPA strongly encourages actions of the private sector to improve environmental protection. Creating or employing technologies to reduce pollution at its source, increasing recycling and recovery, finding less costly ways to treat or remediate pollutants are all ways being developed to lessen impacts on the environment. These technologies reduce the cost of complying with regulations and make environmentally friendly voluntary efforts possible.

These same activities are also creating new jobs in a growing economy. We salute the small businesses, such as Green Gazelles, who are leaders in this area. EPA will continue to support efforts by the private sector, especially small businesses, to implement technology innovations for environmental protection.

The EPA Administrator Michael Leavitt recently identified technology as one of the cornerstones of moving to a "better way" of achieving environmental protection. The development of environmental technologies is primarily the role of the private sector, and EPA's programs are designed to support private development by addressing specific barriers that discourage or hold back the development and adoption of these technologies, particularly those barriers faced by small businesses.

The EPA has a number of primary programs that provide such support to the public and private sector for the development of new cost-effective technologies, and these technology development programs managed and coordinated through EPA's Office of Research and Development provide a continuum of support from early stage

research to late stage commercialization. They include a number of programs I would like to briefly describe.

The Small Business Innovation Research Program that you heard about earlier: While small businesses have historically accounted for over half of the innovation in the U.S., they often have difficulty getting equity capital for technology development. This is a particularly acute problem with regard to environmental technologies where regulatory changes can quickly change market opportunities and discourage private capital providers. I will say more about this program shortly.

Another program is the Environmental Technology Verification Program. For years technology developers have been stymied in their efforts to sell new innovative technologies because potential buyers are often unwilling to take the risk that the technology will not perform as claimed by the developer. EPA's ETV Program verifies performance data of commercial ready technologies in an effort to encourage use.

The Superfund Innovative Technology Evaluation or SITE Program encouraged the development and application of innovative technologies to clean-up at superfund sites. SITE focuses on commercial ready technologies, and provides for field testing at actual contaminated sites. As reported in the SITE report to Congress for Fiscal Year 2001, estimated total cost savings of clean-ups from the program are $2.6 billion.

Another program, National Environmental Technology Competition, this NETC program is designed to competitively seek the best commercially developed new technologies to cost effectively address certain high priority national environmental problems, and to support their broad application in solving problems.

For example, using NETC and other resources EPA has supported 12 demonstrations of arsenic removal technologies for small drinking water systems. Another 16 to 20 demonstrations are planned.

Yet another program, is the Science to Achieve Results Grants Program; Research under the Star program, supports only universities and nonprofit organizations, but research results are widely publicized and broadly available. Many small technology development companies are started by or employ former academics who patent technologies developed as part of their research.

And finally, I will mention Cooperative Research and Development Agreements, these so-called CRADAs can serve many purposes, but usually they are intended to transfer intellectual property or to cooperate in final development or testing to make technology commercially available.

In some cases these are technologies that EPA developed in its laboratories and are being licensed to a private company. In others, the private companies use EPA's expertise or facilities to complete final testing or development of their technology. This opportunity is particularly attractive to small- and medium-sized businesses, which comprise the majority of EPA's CRADA partners to date.

I will spend the last minute talking about the SBIR Program in more detail. This particular program allows recipients (after a rigorous review of their proposals to ensure that the projects meet EPA's needs and program priorities, are technically sound, and

have environmental benefits and broad applications) to be funded in an early stage (the so-called proof of concept stage) and then perhaps continue through a second phase of funding if phase one results are promising.

As an example of the SBIR approaches, we focused on significant portions of the program in pollution prevention and hazardous waste minimization. We are requesting green chemistry and engineering innovations as alternatives to high priority chemicals and environmental challenges ranging from inherently benign flame retardants to lead and mercury alternatives to green building design. Numerous of these technologies have been successfully commercialized and are making significant contributions.

I have provided to the Committee a hard copy of materials that are available on our website that are basically a series of success stories, these SBIR programs and the good work that they are doing, and I can talk about several of those if the Committee would like.

In my written testimony I have also described other examples of additional environmental technology activities or programs that benefit small businesses. These are available through our Environmental Technology Opportunities Portal, a one-stop shop that EPA designed to assist small businesses and others to find information that supports development and application.

In conclusion, EPA believes that innovative technologies are central to achieving better, cheaper, and faster environmental protection, the role of small businesses is vital in developing and applying those technologies, creating new jobs, and enhancing U.S. competitiveness. EPA applauds the Green Gazelles and other companies who have demonstrated success in this area, and will continue to improve its program to enhance the potential of these companies to succeed.

Thank you.

[Mr. Farland's statement may be found in the appendix.]

Chairman SCHROCK. Thank you, Dr. Farland. I was gently reminded that I mispronounced your name. I hate it when people mispronounce my name, so I apologize for doing that to you.

Dr. FARLAND. You can be sure it is not the first time.

Chairman SCHROCK. I will bet, yet.

For Mr. Lindell, Mr. Seydel and Mr. Catron, you know, our economy has clearly been through a difficult period, and it appears that we are entering a period of expansion.

Is your business expanding, and what is your sense of the state of the economy based on the businesses you are in? Mr. Lindell?

Mr. LINDELL. Our business is expanding. My worry is that—I put 1,000 people out of work with jobs going overseas. I am trying to figure how to put 1,000 back. I do not think it is all that easy, largely because the way the internet is changing, the way values—the value propositions that are basically penetrating the whole economy.

I do not know what to do. We are trying to stay a smart business. We are trying to stay away from being a commodity, and we are trying to solve bitch problems with a matrix of products, the only way I know to stay above it. My son is looking for a job.

Chairman SCHROCK. Okay, good point. Mr. Seydel.

Mr. SEYDEL. I also own a few other companies, and one of them is in the textile and fashion chemical business, so we have——

Chairman SCHROCK. We know where you are going to go on that one.

Mr. SEYDEL [CONTINUING] So you know because——

Chairman SCHROCK. Yes.

Mr. SEYDEL [CONTINUING] But at the same time we are free traders, and we would have preferred to see this happen a little bit more gradually, I think. It is unfortunate that the export of jobs happened at exactly the same time as this recession. But I think it is fair to say that we are recovering. We have had to restructure that particular business.

This one that we are talking about today though with EvCo will grow very significantly, has grown very significantly, and probably will continue to because there are just not too many people that have gotten into the trash heap and found out how valuable some of these materials are.

Chairman SCHROCK. Sure. Mr. Catron.

Mr. CATRON. I think we are actually addressing the problem where we do not need to go offshore, and you almost cannot go offshore.

Chairman SCHROCK. Right.

Mr. CATRON. We have a three-pronged approach because we grow by either selling new franchises, and as people get laid off or companies down size, we grow in that sector, so we reemploy and have them employ other people. Then we provide a service to the consumers, so when a new franchise starts, they are growing and providing services to the consumer that way, and just last year we started a retail line for do-it-yourself process.

So depending on which segment we are addressing, we have grown and consistently grow anywhere from 18 to 22 percent a year.

Chairman SCHROCK. Unless we ship everybody's front yards overseas you are still going to be able to do business, are you not?

Mr. CATRON. You know, we have a lot of inquiries from overseas——

Chairman SCHROCK. That is good.

Mr. CATRON [CONTINUING]—that they want our stuff.

Chairman SCHROCK. Good.

Mr. CATRON. Which is nice.

Chairman SCHROCK. Good, good, better than the other way around.

Mr. CATRON. Yes.

Chairman SCHROCK. For the three of you again, in addition to the recent income tax deductions, expensing for businesses rated from 25,000 to 100,000 dollars, what has that done for you? Obviously it has helped. In what way? Mr. Lindell?

Mr. LINDELL. We are still in a break-even situation, so we are not taking advantage of any of the tax situations, nor do we pay taxes at this point. We keep pumping our money back into our business and breaking even.

Chairman SCHROCK. Mr. Seydel.

Mr. SEYDEL. Like I guess most Green Gazelles you will find that are in the—headed for an apogee, but not quite there yet. We do

not—we are not making enough money to be able to profit from that.

Chairman SCHROCK. Mr. Catron.

Mr. CATRON. I feel like I am in this boat by myself.

[Laughter.]

Chairman SCHROCK. Congratulations.

Mr. CATRON. It is a great thing. I would like to see them pump it up more. As S corporations or LLCs, it gives us a tremendous way to lower a tax liability where you are profitable but the cash is not there simply because of the generation of how it works. So by allowing us that deduction, believe me, it has helped a great deal in my business.

Chairman SCHROCK. Great. Which of you has used any government assistance to start or expand your business? And if you have, what has been the result?

Mr. LINDELL. I have not used any government assistance.

Mr. SEYDEL. We have been helped tremendously by EPA. EPA has kind of helped us shepherd this program all the way from their waste wise incentive programs with awards, and with supervision through their regional offices. So we have counted on them significantly. And then within the administration, John Howard, who sort of bridges the White House to EPA, has been a very significant player for us, including giving us a lot of contacts within the industry that have helped us along.

Chairman SCHROCK. Great. Mr. Catron.

Mr. CATRON. I would echo that certainly the EPA has been very helpful in promoting what we are doing in one way, shape or form. We have actually written a chapter on integrated pest management for their textbook.

The SBA has been helpful in that we are approved for SBA lending, small business lending. We do not have to go through a lot of red tape anymore for a new franchise to get that SBA lending, or loan I should say; and just individual state regulatory agencies can be very helpful.

And I am not saying this because you are from Virginia, but Virginia was the first state that I am aware of that actually, they endorsed our programs for waterway protection, and gave us the permission, if you will, to produce and use a certificate from the Department of Natural Resources saying that this is a good thing, which is nice.

Chairman SCHROCK. That is a huge issue at home, I can assure you.

Mr. CATRON. Yes.

Chairman SCHROCK. I have questions for Mr. Clevey and Dr. Farland, but I would like to yield to Ms. Velazquez.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

This question could be answered either by Mr. Clevey, Seydel, Catron or Lindell. You have been very polite not to bring this up today, but I ask you to consider these three facts.

First, according to the Bureau of the Census survey small firms get about 11 percent of their R&D budgets from federal resources. Second, large firms get about 26 percent of their R&D budgets from federal sources. And third, small firms have consistently been

found to be more innovative and more likely to take innovations to market than large firms or academics.

Given these facts and given that the EPA's SBIR program currently spent only the statutory minimum on small business research, would any of you care to make a suggestion about what the EPA should do to their allocation of SBIR of research dollars?

Mr. SEYDEL. Small businesses are more efficient in the application of their funding. We get just as much done with half the money. That is what you said.

Ms. VELAZQUEZ. Yes.

Mr. CLEVEY. I work very closely with that program, and with the SBIR programs at the other agencies. I think there is a statutory question about what the limit is, and there is a whole series of questions about SBIR and how that money is used, the fact that there is no administrative money in that allocation, and a number of things.

I think rather than trying to restructure the SBIR program, one of the things that I have recommended——

Ms. VELAZQUEZ. This is not about restructuring.

Mr. CLEVEY [CONTINUING] I understand. Is lining up the programs, that a grant that is given to a university from EPA to work with new technology, there should be some way for that technology to roll into an SBIR to get it into the marketplace. And a lot of times using the SBIR is a way to leverage technology that has been funded someplace else. If those two things were connected, we would see a lot more productivity rather than funding a research at a university out of one hand and funding an SBIR out of another, and these two never connect.

If we just aligned these programs, made it easier for small businesses to use SBIR to access technology that has already been developed by other funding, I think we would see productivity, and we would not have to do major restructuring.

I am not sure I would say that the money being spent at the university to do basic research should be spent in SBIR. It is two different kinds of programs. But I do think that that grant should not be given to the university unless there is a clear path to use the successful results with an SBIR, and quite frankly, if it is not, that should be seen in the next review process as far as I am concerned.

Ms. VELAZQUEZ. Thank you.

Dr. Farland, I have heard your testimony and also we have been to your website. How much is your budget this year for SBIR?

Dr. FARLAND. The SBIR budget generally fluctuates between $5 million to $7 million. I can give you the figure for 2004. It is closer to $5 million in 2004.

Ms. VELAZQUEZ. I am sorry, it is close to?

Dr. FARLAND. $5 million in 2004.

Ms. VELAZQUEZ. Five million.

Okay, your report on the long list of successes in the SBIR program are very impressive. Would you say that the SBIR program has helped EPA and the country to develop green technologies to solve environmental problems?

Dr. FARLAND. Yes, absolutely, Ms. Velazquez. We are very proud of the work that has been done and the focus of the SBIR program in green technologies, particularly green chemistry, alternatives to

hazardous solvents, and the opportunities that we have had to feed some of this research work directly into our sustainable development type programs within our pesticides and toxics program.

Ms. VELAZQUEZ. We heard from the witnesses that innovative small businesses need money for research to solve environmental problems. Your research budget is of 2.5 percent——

Dr. FARLAND. Yes.

Ms. VELAZQUEZ [CONTINUING] Is the minimum, it is a floor. It is the legal minimum you can spend. So if you heard that they need more resources, can we count on you to double the funds allocated for the program in the year 2005?

Mr. CATRON. I am going to write your answer down here.

[Laughter.]

Mr. CATRON. Or maybe not.

[Laughter.]

Dr. FARLAND. Congresswoman, I think you know that the EPA's research budget covers a lot of different issues, and it is something that we need to make very tough decisions about. Every year we look carefully at how we expend those resources, and we make the best of the budget that we get.

I cannot suggest to you today that we will double that budget. I can tell you that EPA supports small businesses to the tune of $1.2 billion.

Ms. VELAZQUEZ. So we are talking about this particular——

Dr. FARLAND. This research activity, I understand.

Ms. VELAZQUEZ [CONTINUING] SBIR.

Dr. FARLAND. Yes.

Ms. VELAZQUEZ. And we talk about, you know, at a time when the economy needs to create jobs, and listening to the success of these type of industry in the small business sector, and they are saying that they need more money, so.

Dr. FARLAND. I understand. I will take that back———.

Ms. VELAZQUEZ. You will be———.

Chairman SCHROCK. Mr. Clevey is still waiting to write down, right?

Mr. CATRON. Right.

Ms. VELAZQUEZ. Dr. Farland, your Environmental Technology Verification Program sounds like a wonderful idea. It should really help market this new technology. Of course, only about 70 percent of the cost is covered. I know that the SBIR research award recipients get some help in paying for the verification.

Do you find that a lot of older, small businesses with good idea cannot afford it?

Dr. FARLAND. I think that that is difficult, but we have through the SBIR program looked carefully at the technologies that move into phase two, for instance. And for the others here, phase one projects get about $70,000 in terms of development costs. If they are producing a technology that looks very promising, they may move into phase two. There is an opportunity for some $225,000. There is also some incentive, if they have a private funder, to be able to get some additional monies from the EPA to match funding coming from a private vendor. And so we think those are good opportunities for us to provide.

Ms. VELAZQUEZ. Thank you, and I hope that you go back and revisit your budget.

Chairman SCHROCK. Thank you, Ms. Velazquez.

Ms. Kelly.

Ms. KELLY. Thank you, Mr. Chairman.

We have got a real problem here because the innovation to create a green company, these Green Gazelles is there. The problem clearly was pointed out by our ranking member. There is not enough money. We have an example sitting right here at the table. Two out of the three people are very, very marginal sitting at this table.

I am turning to you, Dr. Farland, because as our ranking member, Ms. Velazquez said, how can we help you get more money to these people?

In my own district we have had two plastics manufacturers that have been in business, they have struggled along for close to 15 years making pseudo-lumber out of totally unusable plastic. They are recycling plastics that otherwise would build up in landfills, and for which there would be no use. Both of these, the OBIX Corporation in Stanford, Connecticut is one. There is another one up in Duchess County that I represent. Both of these have had to go out of business because they cannot get the funding that they need.

Their products are bought. OBIX and the other one are both selling to places like Home Depot and Wal-Mart. It is not that they do not have an end user for those products. It is that they cannot get the financing.

Now, the SBA can do some things, but do you have a website, for instance, where they people can log on to give them places where they can go to get the money?

I am going to ask you a second question. Is there something that we can do legislatively? Everybody that comes to us wants money, but legislatively is there a way that we can reconstruct what we are doing so that it makes sense to help these people get these wonderful ideas, which we truly need, out into general use and get them up and moving?

And if anybody else want to answer these questions after Dr. Farland, please feel free.

Dr. FARLAND. Congresswoman Kelly, I think—well, both of those questions are very good ones. We have recognized that the barriers that you see to the funding of some of these programs come from the lack of venture capital that is available for many of these folks simply because of the small profit margin, and the lack of confidence that they can actually produce what they say they can produce. They do not have a large track record and so on, and the lack of information as to what is out there and what is available.

We have tried to deal with the latter two of those, particularly looking at the issue of the website. We were asked by Congress to develop a one-stop shop so to speak, and we did that this year, and that is the ETOP website that I mentioned, and the website is listed in my testimony.

In addition to that, in terms of what we could do legislatively, I mean, certainly the one thing that we understand the SBIR program is based on the total funding for federal research, and federal research has the ability to support technology development, and

that technology development actually stimulates these types of activities.

And so I can only suggest at this point that one thing that always helps us is supporting the importance of the federal research that develops these types of technologies.

Ms. KELLY. Even if I put a link for the folks in my district who are these nascent corporations that are green corporations that truly need your support, and I put that on my website, would that help them find what they need?

Dr. FARLAND. Oh, I think it would. Yes, absolutely. I mean, our sense is this—this ETOP website, this web portal that connects them to quite a number of different programs has the ability to provide them with a resource to go to if they have questions, that links them directly to the SBIR solicitations, those types of things are all very important sources of information for these businesses that are trying to get into the market.

Ms. KELLY. Mr. Clevey, feel free anyone to jump in here. We have a problem, we have to try to help you figure out how we can solve this problem.

Mr. CLEVEY. Let me just say on the SBIR program that environmental topics and funding topics show up in multiple agencies, not just EPA. And the National Science Foundation, for example, under the agile manufacturing topic area has a whole group of topics dedicated to environmentally conscious manufacturing.

So I think part of the issue is looking at how environmental technologies are showing up across the research budget in the United States. And EPA clearly has a role in that, but EPA doesn't fund renewable energy technologies. EPA is not funding environmentally-conscious manufacturing, and these kind of things show up in others.

So one thing I think that you could do legislatively is similar to what has been done in the early phases of homeland security and the model that was done with the partnership for next generation vehicle, and that is simply ask the agencies to identify all of the environmental things that they fund, and group those together someplace, and whether it is EPA who coordinates it or not, the fact is that environmental technologies are funded all over the federal government.

The transportation budget is funding air quality clean up. It does not know it, but I do as a local person who is working with our Department of Natural Resources to drag that money out of our local Michigan transportation to fund technologies of Green Gazelles to bring a new technology into our state that allows truckers to shut off their engines so that they can sleep for 13 hours without having to run their diesel trucks.

The funding for that is in the transportation budget. It is not—I wish it was in DNR's budget or others, but you know, there are pathfinders like myself who figure out how to work with these companies. I can give you a whole long list of ways that you could make it easier for us to do our job, but the bottom line is you are doing quite a lot now if we just simply aligned those things, and I think EPA would be a logical place.

If they look inside the National Science Foundation and see projects that relate to the environment, they can simply earmark those, and they should be encouraged to do so.

The partnership for next generation vehicle worked quite well that way, and I know, as again in the early phases of homeland security President Bush asked all the agencies just go through your programs, identify anything that relates to homeland security, and you know, list it and broadcast it out, and then they started—that actually served as the foundation for many of the things that have come now.

I think that there is quite a lot going on. I would encourage you to do that as a beginning. Let us find out where the holes are, and then ask how can we fill the holes.

Ms. KELLY. Mr. Farland. I am sorry.

Mr. LINDELL. I am sorry, no.

Ms. KELLY. Go ahead.

Mr. LINDELL. May I offer a thought because I do not need your money?

Chairman SCHROCK. Why are you here?

[Laughter.]

Mr. LINDELL. I would like to———.

Chairman SCHROCK. It is refreshing.

Ms. KELLY. Everybody who comes wants our money.

Mr. LINDELL. I would like to pick up on Mike Leavitt's theme, which is, this is a new sociology enabled by technology. We have been spending all of our time talking about technology being the innovative piece. What I try to do, and not very well I must admit, is to suggest that the innovation can be conceptual as well as technological, and there is altogether too much focus on technology as being the solution when quite simply you can reconceptualize what you are doing, and I will give you an example in a second, and be quite dramatic.

And I will tell you it is in my text, and there is a county outside of Atlanta that decided that it was not going to get conventional sewer, and so it decided that—but it was going to have to double the size of its property because they were going to have to put septic systems in all over the place. That was going to cut property values in half for developers, so they needed a solution.

Their solution is distributed sewer, and here is what happens. The developer goes in and builds the infrastructure for the community and gives it to the community. The infrastructure is done with technology that is considerably less expensive to buy and operate than conventional sewer. In that county conventional sewer runs somewhere in the towns that have it, the fees are somewhere between 450 and 600 dollars a year. In the new formula the fees could be as low as $80 a year per home.

So there is tremendous amount of money in the marketplace if it is reconceptualized, and that is where we have difficulty getting the message across.

Ms. KELLY. Dr. Farland, you had one———.

Dr. FARLAND. Just a brief follow up, Congressman Kelly.

On our website you can actually find a listing of environmentally relevant SBIR programs that are funded by other agencies. This was the type of comment that we were making in terms of sharing

of information. Those programs are out there by year. Again, we can use lots of help in terms of making sure that we identify all of them, but the vast majority of them are found. If you look for 1993, you will see funding from the Department of Defense and the National Science Foundation and others that are relevant to environmental problems.

Ms. KELLY. But Mr. Clevey did not seem to feel that it was a complete enough list; is that what you were saying?

Mr. CLEVEY. I think it is a good start, and in part, if we—one is looking backwards, the other one is looking forward. And I think as we start deciding what the agency missions are, what kinds of things we are going to be focusing on. I mean, the question I think needs to be asked of the National Science Foundation, how does your environmentally-conscious manufacturing program support the manufacturing goals at EPA? That is what I think needs to get done. Let us go forward and let us put somebody in charge of stimulating Green Gazelles, and asking question. You know, do the programs that we have now, do they—you know, do they get in the way of Green Gazelles? Do they give priority to Green Gazelles?

I mean, the bottom line is is if we are going to recharge this economy Gazelles are going to have to do it. If we want Gazelles to take on the job of environmental issues, then we are going to need to encourage them to do that. In many cases it is just opening doors, removing the logs from the road.

I mean, these are entrepreneurs. They will find ways to do it. We can make it easier for them, or we can make it harder for them.

Ms. KELLY. Thank you, Mr. Chairman.

Chairman SCHROCK. Thank you, Ms. Kelly.

Judge Majette.

Ms. MAJETTE. Yes, thank you.

Well, again, let me thank and congratulate Mr. Seydel for truly proving here in the twenty-first century that old saying that one man's trash is another man's treasure.

Mr. SEYDEL. Thank you.

Ms. MAJETTE. But I know that many people argue that the recycling of plastics has not taken off because there is really no economy of scale that has been created in order to make it economically or financially viable.

Manufacturers say that they cannot get a stream of high-quality material at a reasonable price, and recycling companies say that they cannot guarantee such a stream until sales grow robust enough to drive down the cost.

Now, have you found that this to be an obstacle in the development of EvCo Research? And on a broader scale, do you see that there is or we can create a market for recycling plastics and improving that ability to recycle in the coming years? And I would suppose that you would agree with me that that would be very important given the statistics of the high percentage of unreclaimed plastic waste. So if you could address those questions.

Mr. SEYDEL. Thanks a lot. We are not using it all up yet, but we will, and I think there is going to be a problem because the collection rate is very low. I know that Senator Jeffords has proposed a national deposit law that would presumably bring more of the bottles back, because we have 10 deposit states now where we collect

about 85 percent of the bottles that are recollected. And in our own state, Georgia, we collect less than 10 percent of the bottles packed because we do not have an incentive to collect.

I think we will need to have an incentive to collect. There is a lot of resistance by the people who have to do the accounting and the collecting and the returning of these bottles to use. It is an expensive process, but I think we will get there.

There have been several studies recently, one by an organization called Global Green, and by businessmen, and the Environmentalists for Recycling who have shown that the California plan for recapturing plastics works quite effectively.

Now, on the use side, as we grow we could easily consume all of the plastics that are presently going into the waste stream because there are just so many uses for these materials when they are economically collected and put back onstream.

Thank you very much. It is a good question.

Ms. MAJETTE. Thank you. And for Mr. Lindell, what is that county in Georgia that you just talked about?

Mr. LINDELL. Carroll County.

Ms. MAJETTE. Carroll County. Okay, thank you.

Mr. LINDELL. They are one of eight or nine counties now that are zoning for distributive infrastructure.

Ms. MAJETTE. Thank you.

And I do not mean to beat up on Dr. Farland, but what do you think is the best way in which the EPA can provide more support and more resources for these types of businesses and other businesses like them?

What is the number one thing that you think EPA can do or that we can do as members of Congress to help these businesses continue to grow and thrive?

Dr. FARLAND. Again, Congresswoman, I think we have really made an effort to pull together quite a number of programs in research and development as well as across the agency. You heard about Energy Star and a number of those types of programs who really are focused on these issues, these environmental problems that are looking for solutions. And I think the encouragement of the Green Gazelles that you are hearing today is something that is going to be extremely important.

Getting the matches made between the problems, the agencies' priority programs, and these individuals, I think is something that will be one of the biggest things that you could help us to do.

Our entire program is focused on starting at the beginning where someone has an idea, and funding it all the way through to the point where we are assisting in commercialization, and I think we will continue to do that broad spectrum of work.

Ms. MAJETTE. Well, is it a matter, though, of connecting the dots and getting the information that already exists to people, or getting the resources that already exists directed to where they can be most effectively needed?

I mean, because it sounds like everybody kind of knows what the problem is, but we have not really put all the different pieces of the solution, the big solution together, and I guess I more specifically, what is it that we really can do other than say, well, we should pull all these things together?

I mean, what—as a practical matter, what is it that we can do short term and maybe long term, but certainly short term so that Mr. Seydel and Mr. Lindell would be able to take advantage of the tax breaks that currently exist, and we can also bring in other Green Gazelles and other potential Green Gazelles to do the kind of things that need to be done, and thereby reduce, perhaps, the amount of money that is being spent in other ways?

Dr. FARLAND. Again, the majority of this work is funded by the private sector, but we have the ability to help that, again through the sharing of information, through the development work that we do, and through the partnerships that we have with these Green Gazelles, and I think that is something that we are strongly committed to, and will continue to develop.

Since the SBIR program started, we have funded $88 million in terms of these small business incentive-type programs, and close to 1,000 contracts that have put this type of technology out there.

Again, just getting the first stage of technology development going encourages the private sector to then take up the technology and fund it; so we have got to continue to try to do that.

There is always a concern about the federal government essentially funding the private sector, and that is something that we are challenged on frequently in terms of our program. We think we are doing the right thing.

Ms. MAJETTE. I see my time is up. Thank you.

Chairman SCHROCK. Before I go to Mr. Ballance, let me follow up on one thing the Judge said and Ms. Velazquez said.

You gave her a figure of $5 million a little bit ago. Was that for the Green Gazelle project?

Dr. FARLAND. That was for the SBIR program.

Chairman SCHROCK. SBIR program.

Dr. FARLAND. In 2004.

Chairman SCHROCK. What percentage of the EPA budget is that?

Dr. FARLAND. Well, I will not do the math right here.

Chairman SCHROCK. It is probably so infinitesimal.

Dr. FARLAND. The EPA overall budget is about $7 billion.

Chairman SCHROCK. Okay. All right. That is my point. I mean, it seems to me to double that would not make an—I think that is what you were getting to as well. You know, we need to put more money in to make sure these guys stay alive and we would bring a lot more of then on board. Is that what you're indicating?

Ms. MAJETTE. Yes.

Chairman SCHROCK. Yes, that is right. And I think that is where she was going with that, and I agree with that. I mean, if it is infinitesimal, where does the rest of the budget go, because I can think of no better use of money for EPA than to help these three men and thousands and thousands of others that we would like to create just like that. That was my point.

Ms. MAJETTE. And the issue of how do we get the information out to people.

Chairman SCHROCK. Exactly. Yes.

Ms. MAJETTE. I mean, putting it on a website is fine, and certainly my office would love to have a link or be able to have a link so that people who come to our website can access that information. But everybody does not get their information the same way,

and I guess what I am suggesting is we have to be more—I believe it is imperative for us to be more proactive in utilizing other ways of getting that information out there.

And to the extent that we can partner with you, and perhaps even private industry partnering with you to do that, I think that will enure to all of our benefit.

Chairman SCHROCK. And why should businesses have to go to their congressperson's website. I think the government agency involved should be so high tech and so responsive that anybody could go in there and plug in. I think that is what we are getting at too.

The gentleman from North Carolina, Mr. Ballance.

Mr. BALLANCE. Just briefly, I noticed the gentleman in large metropolitan—I am from a rural area, North Carolina. Are the same opportunities available in rural areas where you do not have the same kind of concentration of these recyclables? And what about competition, do you have competition in these areas?

Mr. LINDELL. We have competition. Essentially these technologies work for single-family homes up to several million gallons a day. They are ideal for small rural communities. We have actually done them. They are ideal for self-help programs, and it is just a question of—and I would like to talk to you about whatever the county is, because we are actually trying to do precisely that is Louden County in Georgia right now.

Mr. BALLANCE. Right. Mr. Seydel, what about foreign competition?

Mr. SEYDEL. I think we are going to give the foreigners some good competition. You know, we have this technology that we are developing, it is patented in 70 different patent conference around the world, so I think we are pretty well set to go.

And we have a plant, by the way, in Greensboro, North Carolina where we are recycling vegetable oils from McDonald's friers, and turning them into paraffin wax replacements that are both biodegradable and of course less expensive. So we appreciate North Carolina very much.

Mr. BALLANCE. All right. Mr. Chairman, that is all the questions I have.

Chairman SCHROCK. Thank you, Mr. Ballance.

Mr. Clevey, you said your testimony that we will not transition to an environmentally sound economy without businesses like these leading the way, and I agree. What makes you so sure that the private sector will lead the way? I hope they do, but what proof do you have that that is the case?

Mr. CLEVEY. Environmental technologies, for the most part, can be an often should be looked at as a productivity improvement, and green technologies often outperform existing technologies that are based on an oil. We are making plastics in Michigan, biodegradable packing materials made out of corn and rice hulls in Michigan based on a technology based at Michigan State University. Most styrofoam is made out of oil.

So if we start looking at, you know, taking the green products that we have, just recycle material or materials that have environmental performance, oftentimes they are more expensive simply because they are early stage products. But in the larger scheme of things they cost less to produce, they cost less to process, and if we

truly got to a recycled economy our materials cost would drop almost to zero.

So the opportunity here we see is Gazelles are mining a market niche, and they are able to produce products that outperform their competitors and oftentimes cost less than their performance.

There are some metrics that you—anyone who is in the business of innovation looks at, and certain metrics on the kinds of companies that do well, but essentially we just take two.

What percent of annual sales is based on products introduced within the previous three years? It tells you a lot about the level of technology and innovation and competition within a given industry.

The other one is, how much—what percent of your annual sales is invested in new product development? And that tells you a lot. In the United States our old industrials, about five percent of the annual sales is invested in new product development, which means that those companies are often prime candidates for offshoring and low wage rates because they cannot—their products oftentimes cannot compete based on performance.

Green products and government, these are companies that are spending, as you can see, a tremendous amount of time in making products that will simply outperform. A lot of the barriers they face are artificial barriers that are simply blocking the growth of their industries, and all three of them can give you those kinds of stories.

They overcome those because they are good business people, and the fact that their products are less expensive, outperform their competitors, and do not destroy the environment, which is a tax on our economy, and quite frankly, a tax on their customers, is a competitive advantage.

Chairman SCHROCK. Are federal regulations and is federal bureaucracy getting in the way to the point where some business just say the heck with it, I could create these things, but when I have to deal with the federal government it is just not worth the effort?

Or is it just people are not inclined to go into that sort of thing?

Mr. CLEVEY. I think it is a combination of things. First of all, the private sector, if you are a large corporation and you can get an R&D tax credit, yes, you may be investing tax credits, but small companies do not get that. Venture capitalists and banks do not fund new technology development. So oftentimes these companies are forced to, go without, or in the cases where they have a program like ours, and we can basically write these grants for them, and help them get this funding for them, it makes it easier.

I do not think that there is a company in the environmental area that is not very comfortable with working with government at the local, state, or federal level.

Chairman SCHROCK. Say that again.

Mr. CLEVEY. I do not think there is a company in the United States that has an environmental product that is not very comfortable in dealing with the government——

Chairman SCHROCK. Okay.

Mr. CLEVEY [CONTINUING] Because this is just a course of doing business at all kinds of levels. I think one of the concerns I hear is that there is no consistency or purpose between the environ-

mental regulations at the local, state and federal level. There is a lot of conflicting things.

There are rules on the books that do not get implemented. Phil was telling me about one of his competitors who has a contract here to do lawn care service that as far as he is concerned does not meet the regulatory guidelines of the federal government, and you know, wonders how that company can continue to sell their product and get the contract to take care of the lawn service right here in Washington.

So there are barriers. There is all kinds of things that the government can and cannot do to support these companies. I mean, the good news is are they are going to do this whether you help them or not, or whether you are in the way or not. From a public policy point of view, because we get an economic benefit and environmental benefit by stimulating the growth of these kinds of companies, we really should be asking a lot of questions about how we can do this.

An investment tax credit, if I am an investor and I invest in a Green Gazelles, I should get an investment tax credit for investing in the company. If I am a socially responsible investment fund that puts—invests in a mutual fund that invests in these kinds of companies even though their returns are four percent higher than Standard & Poor's, they are not getting any kind of special consideration for investing in these kinds of companies.

If I am a large company, a large durable goods manufacturer, and I buy a license to enter into a joint venture with a small company, green business, do I get some special benefit for doing that?

If I file a patent, if I am a green company and I file patents, can I write those patents off as a cost of doing business?

The SBIR program, for example, does not fund patents. That is not an allowable expense under an SBIR program. Well, if you are asking a high technology company to invest a couple of million dollars of federal research into a new technology, and you are not willing to help cover the patent costs, and you expect them to go out and get venture capital, well, I do not know any venture capitalists that would invest in a company where the technology is not protected.

So by simply saying, yes, you have to spend $70,000 on patents for the $100,000 research grant you got, there is some logic disconnects here. Yes, there are barriers.

To answer your question, do Green Gazelles not do these programs because they are too hard to do? No, it simply slows down how fast they can provide a return on investment back to you, and that return on investment is jobs, tax dollars, and economic development.

Chairman SCHROCK. I was sitting here while you were talking and asking why some of these things do not exist to help those, and the answer I got was because there is nothing in place to do that. Nobody does that. Maybe we have reached a point we need to start creating a situation where that does exist to incentivize people to do that.

Mr. CLEVEY. I think just asking the question again, what do we have in place that these Green Gazelles can use, and are they connected well. I think EPA has done an outstanding job. But to say

the environment is EPA's job is, I think, the wrong way of looking at this.

The Department of Energy is—the amount of money that they spend on renewable energy versus some of the other things that they fund, that would be worth looking at.

Chairman SCHROCK. Yes.

Mr. CLEVEY. I think the National Science Foundation does an outstanding job in funding environmentally-conscious manufacturing technologies, and the grants that they go and give to companies are directly related at keeping those companies more competitive so that they are not forced to make the choice of do I have to move.

In Grand Rapids, we have a company that manufacturers refrigerators moved to Mexico because their wage rates were so much lower. We could have reduced all of their taxes and taken away every single one of their permits, and they still would have moved to Mexico.

Chairman SCHROCK. I know. I know. I know. I do not know how to solve that one.

Mr. CLEVEY. Their products make them more competitive. That is how you solve it, research and development.

Chairman SCHROCK. Mr. Seydel.

Mr. SEYDEL. Let me just add one brief comment. I think everyone here can see, Congressman, from Mr. Clevey's comments, and the people that he represents, and then behind me is Byron Kannard, who is the Washington version of Mr. Clevey, these people are the connectors for us because we really are so busy in our laboratories and in our development cycle it is very difficult for us to be able to look into these sort of things.

I think the federal government could go a long way by encouraging these people who are the reason why we are here today, and the reason why we get so well connected with government agencies. They are the nonprofit organizations that are the interface, and frankly, you know, I think a lot of the major industries have their own associations and lobbyist groups that are here in Washington, but Green Gazelles, entrepreneurial people do not have funds for that.

So I think you could do yourself a really good favor as far as connectivity is concerned by fueling these guys so that they could go out into the United States and drag these people in. Maybe they could say you do not pay any dues right now, and then later on if you get successful we would like for you to do some payback, sort of like we do with loans to kids going through college, you know. Just some kind of advance to sort of help them help you make the connection so these people can move a lot faster, because listening to some of the things that EPA is offering today I can tell I am over there all the time.

I won their waste wise award for five years, but I did not know that some of those programs were going on until I heard these two guys talking about it. And if Green Gazelles had not brought me here today, I would not have heard it.

Chairman SCHROCK. Dr. Farland, why does Mr. Seydel not know that?

Dr. FARLAND. Well, again, this is one of the barriers I think that we have identified; that we need to get that information out.

Chairman SCHROCK. Why are the barriers there and how do we break it down?

Dr. FARLAND. Well, we are looking at breaking it down by providing those kinds of links through the website, by working with Mr. Clevey, with Mr. Kannard and so on to really try to make sure that people are aware of all of these programs that we are carrying out.

So this hearing today is a good start.

Chairman SCHROCK. Right.

Dr. FARLAND. And we will see if we can get people aware of this web portal.

Chairman SCHROCK. Great. Mr. Lindell.

Mr. LINDELL. Yes, thank you.

Your comment that we maybe need to create something takes me right back to Tracy Meehan's comments that the complexity of the issues we face right now is so high that we need a change in paradigm. I would suggest that that language is the same.

Chairman SCHROCK. It is the same. I am sure of that.

Mr. LINDELL. And that EPA ought to be engaged on that basis.

Chairman SCHROCK. Yes, the last thing I wanted to do when I came here was create anything, because what it does is just cause grief to the business world and the people we represent, but what we need to create is a system where we can tear down some of these barriers to make it easier for you all to do business. That was my point, and I agree with that.

Mr. LINDELL. Very true.

Chairman SCHROCK. Dr. Farland, in your testimony you said that Governor Mike Leavitt believes technology will help us move to a better way of achieving environmental protection. Can you give us some examples of technology improvements that have led to improvements in our environment?

Dr. FARLAND. Sure. I had three examples in my written testimony that the Committee can take a look at, but let me mention one of those, and then two others.

One of them is a company called Niton, and it is one of those that we highlighted in our success stories for SBIR. They developed a detector for lead and lead paints. I think you understand that lead is a very serious environmental problem because of the use of lead paint, because of past history of smelters and so on. This particular technology coming out of small businesses now used industry-wide because it significantly has the ability to reduce the costs associated with analyzing for lead in soil, so that's clearly an example where there has been a significant advance.

We developed some research within our own laboratory in Cincinnati that dealt with the problem of the indoor environment, and that's molds. The ability to actually identify hazardous molds through using advanced technology, genomic technology, has now been picked up in five different patents, and is being marketed, commercialized by a number of companies through CRADAs, the type of thing that I described.

The third example that I would give you would be one related to air pollution, and the fact that there are a number of extremely

good retrofit technologies for diesel that are substantially improving the quality of the air and the emissions from diesels, taking care of particulate matter and sulfur and nitrogen oxides that are problematic.

Those are all examples of the kinds of technologies that we have stimulated and have been applied to very difficult environmental problems, and there are many more.

Again, I hope people will take an opportunity to look at these small business success stories. There are about 18 of them on the website.

Chairman SCHROCK. Do you feel that we have the right incentives in place, right incentive programs in place to encourage more businesses similar to the businesses you have heard talked about here today?

Dr. FARLAND. I do. Mr. Schrock, I think you have heard that there are significant barriers out there, and we think that we have addressed quite a number of those with the six or so programs that I have talked about, and we are doing more.

I have mentioned in my written testimony some of the future work that we will be doing with regard to the National Environmental Technology Council where our regional people will come in and talk about the problems that they are faced with, and we will try to make some matches with some of the companies, people who can begin to apply technologies to solve those problems.

We have a group of external experts at EPA that will come in and give us an opportunity to get their best ideas and what types of things will work.

Chairman SCHROCK. There are a lot of grant programs out there to help folks like the men we have here today. Would there be a need for consolidation of some of those programs so people would only have to go to a limited number of places, or should each one of those be run independently, which, frankly, makes it more difficult for businesses to tap into I would think?

Dr. FARLAND. Right. I guess, just to be clear, Mr. Chairman, EPA has just one grants program and that is the Star grants program that I talked about. SBIR is primarily contracts, but in effect, these are all used to support the types of programs we are talking about.

The various grants and contracts activities that I have described and the CRADAs that I have described all target different audiences, and different types of technologies, some at the very beginning of the process, some later on in the process, and so on.

So I think all of those programs need to come into play as we address some of these problems.

Chairman SCHROCK. Doctor, I have one unrelated question before we are finished here. Your office is working on a metals framework assessment.

Dr. FARLAND. Yes.

Chairman SCHROCK. And I know this assessment has faced several delays. Can you give me any kind of a new or final time line when this will be completed?

Dr. FARLAND. Yes, Mr. Chairman. We have been working on this issue for awhile as you know, and again, this is of great interest to the small businesses who deal with many of the metals——

Chairman SCHROCK. Right.

Dr. FARLAND [CONTINUING] And metal products that we are talking about. That framework is in very good shape. We are making the final changes this month. It will go to our science policy council early in June. It will be released for a peer involvement, an expert involvement workshop which is scheduled for the beginning of July, and then it will be reviewed by our science advisory board in the September time frame, so we should have that framework completed, reviewed, internally and externally, and in final form by the end of the year.

Chairman SCHROCK. Great, thanks.

Your presence here today and your testimony and answering the questions has been very helpful. I did not choose to have this hearing just to pass the time of day to bring you all from where you live. We did it because of serious stuff, and the three of you who do the business end of it are doing some magnificent things, and we need to increase your numbers, many, many fold. And if there is a way we in Congress can help the government part of this make it easier for you to create more—expand your business and create more business, that is what we want to do, and you have given us a lot of food for thought here, and believe me, I am appreciative of everything you do and what you said here.

Before we finish, do you all have any final comments you would like to make? Mr. Lindell.

Mr. LINDELL. I have on page 2 of my formal text seven recommendations that you might want to consider.

Chairman SCHROCK. All right. Maybe I will look at them afterwards. On page 2, let me look here a minute.

Okay, I only see five, but we will go through them. Great, thank you.

Any others? Mr. Clevey.

Mr. CLEVEY. I just wanted—the point you made about consolidation, I do think that there has been examples in SBIR across agencies where there has been some sharing and cooperation and things.

I think it would be worth at least a pilot project to ask the question, what are the—you know, the number one environmental priorities that we have to deal with, and to ask all the SBIR agencies, are you planning on funding anything in this area; and if so, simply earmark it, put a star next it, et cetera, and if a proposal comes in from anywhere in the United States to any agency for that topic area——

Chairman SCHROCK. Sure.

Mr. CLEVEY [CONTINUING] Somehow it gets—there is an interagency group that looks and those and makes some decisions about perhaps fast-tracking them, consolidating money.

One of the problems, I think, I see with the SBIR program is it is spread. There is not a lot of money in any one place except U.S. Department of Defense. It is spread very thin, and there is a lot of redundancy going on in the program. And if we are going to trust EPA to set the environmental targets and tone for the nation, then the rest of the government should get behind it, and that would help a lot.

Nobody funds research and development for these companies. This SBIR program is the beginning. All the other programs that

EPA has that help to facilitate the commercialization assume that the research has been done, and the SBIR is about the only source that a small company can go to get that done. It is a very, very critical part of this.

Chairman SCHROCK. Right, thank you.

Well, again, thank you all for your testimony, your appearance here today. We certainly appreciate it.

This hearing is adjourned.

[Whereupon, at 12:07 p.m., the Subcommittee was adjourned.]

Statement of Ed Schrock
Chairman
Subcommittee on Regulatory Reform and Oversight
Committee on Small Business
United States House of Representatives
Washington, DC
April 22, 2004

Good morning, ladies and gentlemen. We are here today to talk about an often overlooked part of Earth Day, the private sector's contribution to bettering our environment. We also have reason to celebrate. Over 94% of our population is served by water systems that report no violations of health-based standards. Our air quality is equal to or higher than in Europe. There has been a 55% decline in the release of toxic emissions since 1988. And since 1980 emissions of the six principle air pollutants have been cut 48% while the economy's GDP grew 166% and energy use rose 42%.

Some of those successes have come as a result of entrepreneurs in our society. Among the innovative and fast growing small business sector, many businesses are dramatically increasing the efficiency and productivity of our natural resources. Whether creating technologies to reduce pollution, increase recycling and recovery, or leave a smaller footprint on the environment; these job creators are also creating environmental benefits. These small businesses have been nicknamed "green gazelles."

I am pleased to have several of those businesses with us today. Each of whom deserve special praise for their contributions to our economy and to our environment. I truly believe that solutions to many of our environmental problems will come from entrepreneurs like the three of you with us today.

The Environmental Protection Agency has joined us as well today and I thank Dr. Farland for his appearance. Today we get to look at the EPA's efforts in an area not always associated with the agency. We get to examine not EPA's command and control approach to regulating businesses; but instead we will look at the programs that incentivize environmental improvements, provide opportunities for partnerships with the agency, and encourage businesses to voluntarily make environmental strides.

I would like to thank our witnesses for coming in today. I look forward to all your testimony. We'll now have any additional opening statements.

5 minute presentation

Good morning;

I am Craig Lindell; I am the co founder and CEO of Aquapoint

Today is the anniversary of Earth Day. Now the nation understands what only a few glimpsed in 1970. We must learn to live within the carrying capacity of the earth's natural systems, and we must recognize that each interface between a human community and the natural system on which it depends is unique.

Aquapoint is a wastewater treatment company that shares this perspective.

We are not only in pursuit of a market. We are also in pursuit of a new infrastructure. We are not alone in this pursuit.

Ultimately we think that existing forms of treatment, central sewer and onsite disposal, will blend into this larger and more flexible network. This network will include adaptive small systems in clusters that are specifically designed for each unique interface.

It is in this context that Aquapoint's story becomes interesting.

The unique characteristics of the community and its water resources will require a matrix of technologies, skills, related products and services as well as resources as variable and adaptive as the conditions the community must address.

Aquapoint is structured to provide this matrix with enterprise partners, technologies that are modular, flexible, linked, affordable and readily deployable. It is essentially adaptive infrastructure on a just in time basis, and for a fraction of the cost of conventional sewer.

We work with the premise that a community that is growing and vital must have an infrastructure to support its vision to sustain the natural systems on which it depends and be affordable to the citizens who will use it.

Aquapoint systems are fixed film processes. They are less management intensive, require less electricity and produce a fraction of the biosolids of conventional systems. They are modular, affordable, adaptable scalable and they have a useful life of 35 to 40 years.

Aquapoint designs performance based systems with these principles in mind and we warrant what we do.

The characteristics of this new approach are not ahead of us they are upon us.

Its potential is vast and its value propositions are compelling. In fact this is an infrastructure that will often have the capacity to pay for itself

On Cape Cod Nitrogen levels from septic systems threaten drinking water quality and the coastal ecology. The Aquifer must be recharged. This eliminates conventional ocean discharges as an option. The resulting ground water discharge will require treatment. Cape Cod residents are increasingly aware that their property values, fisheries and recreational resources are in economic jeopardy.

The Mobile Alabama Metropolitan Sewer Authority is about to take wastewater from an overloaded interceptor, treat it at the site and reuse it to irrigate a park.

For supermarkets and fast food restaurants the cost of treatment is a one to three year return on investment.

Sustaining the earth's water resources is a global issue, but it has only local solutions. No one understands the dimensions of the local more than knowledgeable, practicing politicians.

The watershed agenda is probably not achievable without:

- Collaborative intent among local interests
- Small infrastructure solutions,
- Competitive markets and product diversity
- Contractual regulatory compliance and
- Enabling legislation.

To speak on behalf of Small Business potential for capital and job formation is a wonderful opportunity for someone who has closed 3 factories and put almost a thousand people out of work. To lend another voice to the "imperative of responsibility" that Earth Day represents is a privilege.

Thank you for you consideration

Craig Lindell
Aquapoint Inc.
241 Duchaine Blvd., New Bedford, Ma 02745
Tel 508-998-7577--Fax 508-998-7177
www.aquapoint.com

Craig Lindell is a founder and Chief Executive Officer of Aquapoint.

He has served as a director and he is now a technical advisor to the Board of Directors of the Coalition for Buzzards Bay.

He was a founding member of The Heritage Farm Coast Trust, a non-profit dedicated to sustainable agriculture.

He serves on the Board of Directors of the Economic Development Council and he chairs a citizen's forum dedicated to capital formation in southeastern Massachusetts where he lives.

He serves on the Water Environment Federation's (WEF) Small Communities Committee.

He is also member of the Board of Directors and Chair of the Wastewater Committee of the Water and Wastewater Equipment Manufacturers' Association (WWEMA)

He has published and he speaks nationally on distributed infrastructure, economic development and the watershed agenda.

Testimony

TOWARD A DISTRIBUTED AND ADAPTIVE INFRASTRUCTURE FOR WASTEWATER TREATMENT AND INTEGRATED WATER RESOURCE MANAGEMENT

The limitations of our existing regulatory framework are at hand."... "The remaining water pollution problems are significantly more complex"... "Complex problems require innovative solutions and entail a change in paradigm."

(Tracy Mehan :U. S. EPA Office of Water Nov. 2001)

Almost everywhere in the world now, water is discussed and water-related policies are contemplated based on "watersheds" or "river basins" or other holistic terms. ...Little, if any, distinction is made between drinking, waste, or storm water because all of them effect public health, the environment and the quality of life for communities everywhere.

(William Bertera, WEF Executive Director)

Just a few months earlier WEF's President William McMillan summarized the "five key components" of a watershed approach. They included:

- The delineation of a state into natural geographic management areas.
- A series of management steps to guide regulatory and non-regulatory actions geographically
- Integration of water resource programs with the Clean Water Act and management steps and partnerships.
- A process involving stake holders
- A focus on environmental results

The 21st century is already the century of water. Water will alter our world views, our values, our essential institutions and our economic activity.

The EPA Office of Water, has acknowledged the limits of natural systems, the inability of the current economic, legal and regulatory codes to address the complexities of water quality and supply and of the need for innovative solutions that would entail a "change in paradigm".

It acknowledges that to live within the limits of "ambient environmental standards" and the carrying capacities of natural systems, we simply have to think differently about how we manage water.

This reference to the "change in paradigm" has enormous implications. It challenges the cultural foundations of our institutions.

Consider wastewater treatment. Neither the onsite nor the NPDES codes are sufficient to address integrated water resource and watershed management. They focus on prescriptive, command and control solutions for safe disposal and the reduction of contaminants. They do not provide for what Tracy Mehan identifies as the "limits (of the) assimilative capacity of the environment".

Neither do they address the complexities of non-point pollution, water recharge and reuse, or the sustaining of natural systems that are essential to sustaining water supply and quality. They do not provide the flexibility to address watershed-based affordable solutions (environmental results). They provide no basis for managing nutrient loading to coastal zones or the use of new planning tools like the principles of community preservation.

Mike Leavitt, upon confirmation as the Director of the EPA, offered his perspective for reform. "More, Better, Faster, Newer;" ..."I envision a new wave of national environmental productivity...emerging ...from people joining together in collaborative networks for environmental teamwork"... " This is a new sociology...enabled by new technology". "The Environmental Protection Agency can step forward...assist in getting them started, provide resources and in some cases, get out of the way."

The change in paradigm is not before us it is upon us.

Insight into indecision and the path to reform

The dislocations between the traditional approach to wastewater management and the new values and strategies are increasingly apparent and quantifiable. They are important since they highlight the nature and urgency for reform.

TRADITIONAL APPROACH	WATERSHED APPROACH
Water quality	Integrated water resource management
Wastewater is a pollutant	Wastewater is a resource
Disposal field is temporary	Disposal field is permanent
Pollution focus is point source	Pollution focus is nonpoint source
Boundaries based on political structures	Boundaries based on Natural structures
Subsidized environmental compliance	Affordable environmental compliance
Comprehensive Management Plan (CMP)	Continuous Planning Process (CPP)
Preference for singularity	Preference for diversity
Infrastructure is supply side driven	Infrastructure is demand side driven
Infrastructure is centralized	Infrastructure is decentralized
Infrastructure is closed architecture	Infrastructure is open architecture

Cash based accounting	Asset based management
Lowest capital cost procurement	Value based procurement

About the same time that the Clean Water Action Plan acknowledged the need for an institutional structure to support watershed management, (P87) Larry Selzer of The Conservation Fund and the National Forum on Nonpoint Source Pollution suggested the "origins of a watershed framework for conservation". The origins:

- Will be community based;
- Will integrate economic reality and environmental protection;
- Will be technology driven;
- Will be based on collaboration and not confrontation and
- Will be led by the nonprofit and private sectors and not by government.

This perspective is reinforced by three sets of principles

En Libre Principles endorsed by Mike Leavitt at the EPA

- National Standards, Neighborhood Solutions - Assign Responsibilities at the Right Level
- Collaboration, Not Polarization - Use Collaborative Processes to Break Down Barriers and Find Solutions
- Reward Results, Not Programs - Move to a Performance- Based System
- Science For Facts, Process for Priorities - Separate Subjective Choices from Objective Data Gathering
- Markets Before Mandates - Pursue Economic Incentives Whenever Appropriate
- Change A Heart, Change A Nation - Environmental Understanding is Crucial
- Recognition of Benefits and Costs - Make Sure All Decisions Affecting Infrastructure, Development and Environment are Fully Informed
- Solutions Transcend Political Boundaries - Use Appropriate Geographic Boundaries for Environmental Problems

The fundamental premise is that community and watershed preservation are more thoroughly identified and most efficiently served at the local civic level.

In the recently published "Principles for Community Preservation" the Massachusetts Executive Office of Environmental Affairs (EOEA) produced a comprehensive synthesis of development planning and watershed management. Its principals include:

- Protect communities' unique character, quality of life, and natural and built resources through planning efforts from the municipal level up, and respect the interconnectedness of resources across municipal boundaries.
- Plan development and redevelopment in areas where infrastructure is already available or can be upgraded without causing damage to natural resources or straining local budgets.

- Promote the preservation of open spaces and natural resources including coastal resources, wildlife habitats and working farms and forests as part of a long –term economic strategy.
- Promote new economic development techniques that consider the physical and ecological limitations of our natural resources, such as the ability to provide water, assimilate pollutants, and support bio-diversity.
- Adopt zoning and provide incentives that encourage developers to choose less consumptive land use patterns.

The Watershed as Fulcrum:

"The watershed approach should not be seen as merely a special initiative, targeted at just a selective set of places or involving a relatively small group of EPA or state staff. Rather, it should be a fulcrum of our restoration and protection efforts, and those of our many stakeholders, private and public. Failure to fully incorporate the watershed approach into program implementation will result in failure to achieve our environmental objectives in many of our nation's waters."

Successful watershed management strives for a better balance between ecosystem and watershed integrity and the provision of human social and economic goals. Conditions precedent to achieving more normative watershed conditions:

- Reduce pollution sources by developing watershed water quality standards, such as using the concept of Total Maximum Daily Loads (TMDL) to control nonpoint source pollutants.
- Protect and enhance riparian zones and ecologically sound management practices such as buffer zones.
- Recognize in law and regulations that ground water and surface water interact.
- Recognize in land management activities that rivers need room to roam, and their flood plains are inherently subject to flooding.
- Recognize that dams change rivers and their ecosystems, but some of the negative consequences of dams can be mitigated through operational strategies that create more normative discharge and temperature regime.
- Conserve and promote native species by creating native a biota reserves, restoring and reconnecting critical habitats and minimizing conditions that favor invasions of non- native species.
- Promote best management practices for upland and riparian land uses as a means of controlling pollution, but recognize that the best practices for one watershed in one region of the country may differ from other watersheds in other regions. (National Research Council: New Strategies for America's Watersheds)

If you consider the discontinuities, the Selzer Framework and the associated principles, these issue take on an urgency for which the solutions already exist. Not only does the reform potential already exist on the boundaries of the existing codes, but once we reach the community level value propositions are revealed that enable much of this infrastructure to pay for itself.

Additional material

"change in paradigm".

- A "network centric," performance based infrastructure to achieve integrated water resource and watershed management is readily available. The regulatory reform and the organizational structures already exist on the margins of our current institutions. This is critical. The "change in paradigm must emerge from within our current institutions or endure their resistance.
- This infrastructure, properly structured, has significant capacity to fund itself. A risk related environmental results framework as well as a more cost sensitive, fault tolerant and collaborative regulatory structure would contribute to making markets more predictable, innovative and affordable.
- The technologies and competitive markets to realize this infrastructure are already emerging by default because the planning and execution of traditional sewer is too conflicted and slow to meet demand. Early indications are that we can build a flexible, adaptable performance based infrastructure for 40% to 60% less than conventional sewer.
- Watershed integrity is essentially an issue of public health. Unfortunately, public health codes and technologies are prescriptive and they are frequently too limited by their prescriptive nature to obstacle to the watershed agenda. The mission of Public Health –assessment, policy formation, and assurance- is an iterative process of continuous improvement with measured outcomes. This is an essential process for monitoring watersheds and an essential component of the Continuous Planning Process.
- The network centric approach is the heart of innovation. It is adopted from "network centric battlefield warfare" where the battlefield, rather than the "platform centric" battle group, defines the skills, technologies, processes and organizations with which it will be addressed. A similar distinction is essential to watershed management.
- Platform centric dominance must yield to network centric responsibility. It is inherently environmental results and performance based. It demands of our institutions that they risk the changes necessary to provide for environmental results. More important this sets up the potential for rational conditions which are essential for the private sector innovation sought by the EPA.
- The sewer ordinances are provide for the management of common pool resources. They provide for mandatory participation, as well as the ability to issue bonds and collect fees. More important public sewer is the only commonly understood legal public instrument of which we are aware that provides the authority to make decisions on behalf of common pool resources over individual property rights.
- Municipal infrastructure is essential to the creation of value. The real wastewater issues are those issues of primary interest to citizens such as property values, water quality and supply, quality of life, economic development and the preservation of recreational resources. The ability to create perceived value (e.g. property value increases associated with municipal services (sewer) coupled with the authority of the commons) is essential to releasing the capital to pay for this

"change in paradigm"

- SRF money, tax incentives, legislation, watershed and open space grant money and other forms of stimuli are potential catalysts for this change.

Zoning for distributed sewer

In Carroll County they have significant development pressure, difficult soils, and the need to stimulate local economic development. Several years ago they concluded that they could not afford, nor would they receive subsidies for conventional centralized sewer.

At the time Carroll County was not aware that the EPA had endorsed "decentralized wastewater treatment" as a "goal of the Clean Water Action Plan" and as "a permanent long-term solution, to be evaluated on the same basis as traditional sewer". Nevertheless, Carroll County began to prepare for the fact that they would have to rely on onsite wastewater treatment and disposal. Carroll County planners and health officials concluded that they should increase lot size from ½ acre to 1 acre to provide for an additional disposal field in the event of failure.

The doubling of lot size would cut the value of real estate in half. The alternative was to allow the ½ acre zoning if advanced treatment systems were used.

In discussions with Community officials, health authorities, planners and developers, environmental interest groups and citizens the following occurred:

- **The community planned to double lot size to an acre to provide for an extra disposal field**
- **Developers could retain current lot size if they provided aerobic treatment.**
- **Wastewater treatment could be decentralized with on lot or clustered systems.**

This appeared to be the best solution. It was the best solution under the onsite code. However, Carroll County was not anxious to use onsite aerobic treatment systems. Ultimately Carroll County decided to look at providing distributed municipal sewer. Their reasoning was:

- **There are no major obstacles to more than one collection, treatment and distribution system in a sewer district**
- **Lot size would not be an issue because under the sewer code lot size is not specified.**
- **If the community provided municipal infrastructure land values would probably increase.**
- **Therefore the community had the potential to create additional house lots and increases in property value for the developers.**
- **In exchange the community could secure a 50% open space design from the developer and use that open space for storm water and wastewater**

management.

- The community could also require that the developer construct the wastewater disposal system to meet watershed discharge standards.

Essentially, the developer would build the infrastructure to meet watershed quality discharge standards and transfer it to the Community. Planners anticipated that property serviced by municipal infrastructure would increase in value enough to offset the cost of building it.

In fact as Carroll County explored the potential of distributed sewer for it became apparent that it could be an infrastructure with the capacity to pay for itself. Properly structured:

- Growth would pay for the new infrastructure that supports it.
- Rapid returns on investment would offset the costs to commercial sites through disposal field preservation.
- Appreciation in property value generally associated with municipal infrastructure would offset some of the costs of remediation.

Carroll County's re-zoning is expected to be completed this spring. Developers have open space subdivision designs ready for submittal under the new zoning codes. The process has taken about 2 years. Its novelty and its effort to incorporate the principles of community preservation, watershed standard and value based procurement are to our knowledge unprecedented.

This transformation is primarily a process of altering perspective changing relationships and releasing value. It has little if anything to do with what can be bought with government funding. Its success depends on the process of public participation; of respecting and trying to address the interests of all members of the community.

When Carroll County started to discuss decentralized wastewater treatment some senior DEP officials were unfamiliar with the concept. Similarly State legislative efforts to secure 20% open space for development had failed to pass.

Distributed sewer offers communities the opportunity to provide for their citizen's wealth and well being. It is a pragmatic and democratic response to the real wastewater issues. It is active citizenship in pursuit of a framework to increase water quality and supply, to preserve the quality of natural systems and recreational resources, to enhance property values and provide for economic development, community preservation and the quality of life.

"Distributed sewer" is so immediately available and the risks involved in testing its efficacy so minimal that those communities who neglect exploring its potential will have to ask themselves if they passed on an extraordinary opportunity.

"Carroll County is not alone."

In Alabama, Cherokee County initiated legislative reform to set the stage for a distributed infrastructure for wastewater management. In Mobile the same State a metropolitan area will take approximately 100,000 off its central sewer system treat the wastewater and reuse it to sub-surface irrigate a park.

Taking stress off central systems and water reuse may only be the start of a new agenda. "In its FY 2002 Strategic Plan, The EPA's Municipal Support Division concluded; "If current levels of treatment are not increased, by 2016 wastewater treatment plants will discharge about as much Biochemical Oxygen demanding pollution as they did in 1972, before the nation adopted the landmark secondary treatment standard."

In Massachusetts, watershed interests are exploring the roles they might play and the responsibilities they might assume to eliminate the loading of nutrients to drinking water aquifers and coastal estuaries. The irony they confront is that one primary source of nutrients is 1995 code compliant septic systems.

In Pennsylvania they are experimenting with affordable permits. In other states there is discussion of income tax deductions and property tax abatements to promote clustering and management. There is also a discussion of the use of SRF money to provide government loan guarantees in order to leverage the volume of funds available.

Wisconsin's "Green Tier" and Massachusetts' "Environmental Results" programs are contractual alternatives to the standard permitting process that offer flexibility and incentives in exchange for the pledge to exceed code compliant discharge standards.

These are not projects for purposes of public health. They are novel approaches that may prove to be extraordinarily consequential. They are indicator projects for the next infrastructure.

It is also about demographics, social trends, ecological economics and national security.

- **EPA studies indicate that 25% of the 109 million housing units are served by onsite wastewater disposal systems and that approximately 41% of new residential construction are being built with onsite systems. There is a consensus that 10%, or 2,5 to 3 million systems fail each year. Strangely, in the onsite world this rate of failure is acceptable.**
- **Market evidence also suggests that as much as 20% of new commercial construction is also being built with onsite disposal systems**
- **In the United States the "percentage of rivers designated as "impaired" has grown from 26% in 1986 to 36% in most recent years".**

- **The resale dollars lost on USA homes near polluted rivers and lakes are estimated to be $5 billion annually.**
- **There will be little if any assistance from federal grants for municipal wastewater treatment because..."A system that reflects the full cost of treating ...water....will get far more value from the resource than a system riddled with subsidies".(M. Albright.)**
- **"The availability of clean water has come to be recognized as perhaps the most critical of all human security issues facing the world in the next 25 years" (World Watch Institute)**

(This testimony is reflects the draft position paper that was written at the request of the Water Environment Federation's Small Communities Committee as it seeks permission to change its name and focus to The Small Infrastructure Committee.)

Craig Lindell
Aquapoint Inc.
241 Duchaine Blvd., New Bedford, Ma 02745
Tel 508-998-7577--Fax 508-998-7177
www.aquapoint.com

Craig Lindell is a founder and Chief Executive Officer of Aquapoint.

He has served as a director and he is now a technical advisor to the Board of Directors of the Coalition for Buzzards Bay.

He was a founding member of The Heritage Farm Coast Trust, a non-profit dedicated to sustainable agriculture.

He serves on the Board of Directors of the Economic Development Council and he chairs a citizen's forum dedicated to capital formation in southeastern Massachusetts where he lives.

He serves on the Water Environment Federation's (WEF) Small Communities Committee.

He is also member of the Board of Directors and Chair of the Wastewater Committee of the Water and Wastewater Equipment Manufacturers' Association (WWEMA)

He has published and he speaks nationally on distributed infrastructure, economic development and the watershed agenda.

Congress of the United States

House of Representatives
108th Congress
Committee on Small Business
Subcommittee on Regulatory Reform
and Oversight
2307 Rayburn House Office Building
Washington, DC 20515-0515

Hearing of the Subcommittee on Regulatory Reform and Oversight of
The Committee on Small Business of the United States House of Representatives

Small Businesses Creating Jobs and Protecting the Environment

Congressman Schrock, Congressman Gonzales, members of the House Committee on Small Business and the Subcommittee on Regulatory Reform and Oversight, I am Scott Seydel, CEO of EvCo Research headquartered in Atlanta, Georgia, a company designated as a *Green Gazelle* by the Center for Small Business and the Environment.

EvCo was founded in the mid-nineties to invent products made from scrap plastics and other materials found in the nation's municipal waste streams. This research has earned EvCo almost a dozen patents that are now registered worldwide and are the basis for as many commercially successful products.

EvCo's Mission as a Green Gazelle is to apply the rules of capitalism by investing in laboratories and research, manufacturing facilities and product production, qualified personnel and specialized training to build our business and earn a satisfactory profit while favorably impacting our global environment.

Thus EvCo has become recognized as a fast-track, environmentally focused company that invents and manufactures products which:

1. can be made from reclaimed municipal waste feed stocks,
2. incorporate the original energy and resource invested in those feed stocks,
3. are themselves recyclable, biodegradable, and compostable,
4. solve major environmental problems through their use

EvCo's products not only satisfy each of the above requirements but also meet all cost, performance, potency, environmental stewardship and regulatory requirements.

Bottles and food containers made from PET plastics are a major component in the nation's municipal waste stream. Though deposit laws in 10 States inspire redemption of some beverage bottles, over 75% of these containers are presently landfilled.

As products made from nonrenewable petroleum raw materials, this loss represents an investment of hundreds of millions of dollars in resources and energy.

EvCo uses these scrap plastics as feedstocks in its manufacture of water and oil barrier coatings to *waterproof* and *stainproof* textile apparel and carpets. Similar EvCo coatings protect paper and cardboard packaging used to ship refrigerated or ice-packed perishable foods to grocers, and still others protect donut cartons and pizza boxes from grease penetration.

The traditional coatings used in these applications are neither recyclable nor compostable. Thus most conventional packaging ends up in our nation's landfills and incinerators.

Conversely, packaging made with EvCo's products exhibit improved performance properties while allowing easy recycling of spent paper wraps, cartons, and cardboard into new paper products; and, at the end of many reuse cycles, the fibers are fully compostable.

In similar fashion, EvCo uses spent fryer oils from fast food restaurants and grocery deli kitchens to manufacture paraffin wax substitutes. This range of products has proven effective in both adhesives and barrier coatings providing extended life to vegetable oils and substituting the use of nonrenewable resource paraffins.

EvCo's technologies are unique in that they facilitate the manufacture of products that actually gain from dependence on reclaimed wastes as raw material feedstocks. For example, the high temperatures used in forming plastic beverage bottles causes a change in their composition which benefits EvCo's coatings by making them totally water repellent. Substituting *virgin* PET plastics would slow EvCo's manufacturing processes and add cost in achieving these properties.

It is the FDA complied properties of the spent fryer oils that make them valuable in the wax substitutes made with EvCo's technologies because these products may be used on food contact containers such as frozen food boxes or ice cream cartons.

At EvCo's Atlanta laboratories and in the facilities used to manufacture our products in north Georgia and North Carolina, our emphasis is continuing waste reduction

EvCo and its common ownership sister companies have captured the Environmental Protection Agency's National First Place WasteWise Award in three of the past five years, and its CleanAir and Partnership Awards in the other two. This recognition compliments EvCo's Innovation Awards from the Society of Plastics Engineers Recycling Group and the Association of Plastics Recyclers.

Major American, European, and Asian packaging manufacturers are currently testing EvCo's coatings on practically every form of barrier coated packaging, and many of these trials have resulted in commercial flows. The problem being addressed here in the United States is to find a useful and valuable home for the hundreds of millions of plastic containers being lost each month, and to enable the recycling of some eight billion pounds of paper, carton, and cardboard packaging wasted annually.

Research and development laboratories specializing in these fields are partnering with EvCo to speed this process, and several coalitions of retail food product manufacturers, distributors, and retailers have been formed to establish plans and programs to speed the shift from non-recyclable to recyclable and from non-compostable to compostable packaging.

As success inspires us to expand and duplicate our manufacturing facilities and applications laboratories, we have planned for and will be implementing employee recruitment and training programs. EvCo's plants will each provide employment for over thirty associates, and will consume over twenty million pounds of scrap materials in EvCo products that will divert billions of pounds of packaging materials from landfills to useful life cycles. There is no corner of the country where our municipal waste sourced raw materials don't exist in abundance, so that our expansion plans enjoy relatively restraint free location criteria.

Additionally, as a company based on Natural Step Sustainability Principals, we will continue to strive to shrink our environmental footprint by greater production and human resource efficiencies, reduced use of energy and corresponding green house gas emissions, and expanded use of reclaimed waste materials to make cost/performance competitive coatings and adhesives.

A list of the organizations and businesses cooperating with EvCo Research follows, and further information regarding our company can be found on our website at www.EvCo-Research.com. We thank you for this opportunity to tell you of our work and success at EvCo.

Green Gazelle / Earth Day

Statement & Background of NaturaLawn of America, Inc.

by: Philip E. Catron, M.S., CPAg
President, NaturaLawn of America, Inc.

Presented for
The Capitol Hill Briefing
on Green Gazelles

April 22, 2004

Hearing Room, House Committee
on Small Business

Room 2360 Rayburn Building

NaturaLawn of America is a nationwide organic-based lawn care franchise system provider, and was originally introduced to the public in October of 1987.

The system consists of an exclusive natural organic-based fertilization program, (the first ever in the country), used in conjunction with a specially designed Integrated Pest Management program (IPM), as opposed to the use of traditional chemical fertilizers and indiscriminate applications of synthetic pesticides.

Historically, traditional chemical lawn care programs were designed as a "one-treatment fits all" approach. The philosophy encouraged lawn care service companies to blanket-apply chemicals and pesticides over entire lawns without consideration as to whether or not a problem existed, or the environmental long-term impact of such actions.

The "Green Myth" of a perfect weed-free lawn was, and still is, a marketing concept that appeals to many. In reality, lawns will always have some weeds and insects. Lawns will always have spots and turn brown during the summer stress periods. The "Green Myth" is just that – a myth.

In response to continued and increased public awareness in environmental concerns, and the excessive, unnecessary use of pesticides by the lawn care industry, NaturaLawn of America designed and implemented an alternative approach that has significantly impacted the lawn care industry, U.S. consumers, and the environment.

Barriers to Growth

NaturaLawn of America had to overcome several formidable barriers to their growth. When the company first started, the lawn care industry was not practicing or promoting an organic approach to fertilization (soil building) in conjunction with an IPM program to

minimize any chemical and pesticide use. Therefore, there were literally no products for them to utilize. Even though organic products existed, they were extremely costly to use for a commercial endeavor and results were very slow and unacceptable to the consumer. NaturaLawn of America had to figure out how to be competitive from a cost standpoint and also develop products which gave the consumer's lawn a "green up" response comparable to the inexpensive, synthetic, high salt sources of fertilizers.

Another major barrier was to get the consumer to understand that "*more is not necessarily better*;" when it comes to environmental inputs from fertilizers and pesticides. To achieve this, NaturaLawn of America designed and developed a line of proprietary fertilizer products. Using various natural organic sources as the matrix for their mix, they blended them with natural mineral sources and varying degrees of synthetic-organic materials. This resulted in a product line containing a range of natural sources from 25%-100%. Using this combination of products enabled them to do three very important things:

1. Keep their product cost competitive.
2. Give the consumer's lawns a quicker and reasonable "green up" response than what the traditional organic products did.
3. Take lawns that had been on chemical programs from other services and "wean" them away from the chemical dependency over a period of time, thus reducing fertilizer and chemical/pesticide inputs into the environment.

NaturaLawn of America also coined and promoted a new term for their products, calling them **"organic-based".** This was a unique identifier within both the public domain and the industry. Although the use of this new term was initially questioned within the industry, it has now become an industry wide standard and is as generically accepted as "Kleenex" is in the tissue industry.

From an industry and business perspective, NaturaLawn of America has grown from a unique startup in the fall of 1987, as a virtual unknown in the multi-billion dollar lawn

care and Green Industry, to the fourth (4th) largest lawn care service provider in the U.S. Their systems are different, they work and they deliver results with minimal environmental impact.

From a consumer's point of view, acceptance has been and continues to be high. Starting from their inception with no customers, the company has grown to providing services for over 45,000 consumers across the country and is generating revenues in excess of 24 million dollars.

Last year NaturaLawn of America designed and implemented a retail line of companion products to assist do-it-yourself consumers in geographic areas that are currently without franchise service.

Current activities being researched by NaturaLawn of America include development of exclusive organic-based fertilizers to include all-natural food grade materials for nutrient sources, and the incorporation of new and unique microorganisms into the soil profile to assist plant root systems.

A very new and unique product developed by NaturaLawn of America eliminates the need for additional inputs and applications of phosphorus into lawns. The product is called "NP" (no phosphorus) and is a proprietary matrix containing millions of beneficial soil microbes. These microbes work symbiotically within the soil and slowly releases "bound-up" soil phosphorus to the plants, as they require it.

This development will have a significant environmental benefit to ponds, lakes, and waterways that have continually seen problems with algae blooms and eutrophication caused by excess phosphorus.

NaturaLawn of America also conducts an ongoing educational campaign to help the general public become more fully aware of the alternative approaches to chemical lawn care.

And finally, from an environmental perspective, NaturaLawn of America has significantly reduced the amount of chemicals, pesticides, and petroleum based products from entering into our eco-system.

Based on NaturaLawn of America's first two years, a traditional chemical company approach would have used in excess of 1,500 gallons of herbicide (weed control) and in excess of 600 gallons of insecticide (insect control) to treat the same amount of acreage. With NaturaLawn of America's Integrated Pest Management approach, comparative use was cut by 86% for weed control and 93% for insect control. These statistics have been maintained and in some cases even further reductions have occurred throughout the past 16 years.

In 2002 alone, NaturaLawn of America reduced the usage of petroleum derivative fertilizers by over 2.5 million pounds, and reduced petroleum based pesticides from entering into our environment by over 1,000,000 gallons when compared to traditional chemical lawn care.

NaturaLawn of America programs work, they are different, and most important, they are safer.

Philip E. Catron, M.S., CPAg
President, NaturaLawn of America, Inc.
1 East Church Street
Frederick, MD 21701
(800) 989—5440
www.nl-amer.com

Regulatory Reform and Oversight Subcommittee of the House Committee on Small Business

Chairperson: Congressman Ed Schrock

Hearing on Green Gazelles

Thursday, April 22, 10:30 AM, Room 2360, Rayburn House Office Building.

Testimony by,

Mark H. Clevey
Vice President, Entrepreneurial Development and
Director, Green Gazelle Development Project
Small Business Association of Michigan

Chairperson Schrock, Congressman McCotter, honorable members of the committee, ladies and gentleman. Thank you for the opportunity to meet with you today to discuss Green Gazelles and our Michigan Green Gazelle Development Program. I am the Vice President for Entrepreneurial Development with the Small Business Association of Michigan (SBAM). Founded in 1969, SBAM is a private industry association with over 6,000 small business members. In collaboration with the Center for Small Business and the Environment (CSBE), SBAM operates a program to stimulate the growth of Michigan "Green Gazelles" *A Green Gazelle is a cutting-edge, fast growing small business involved in the research, development and/or commercialization of breakthrough environmentally conscious technologies and products.*

Located in Washington DC, the Center for Small Business and the Environment (CSBE) is a non-profit organization that is promoting public policies designed to foster the growth of Green Gazelles on a national basis. CSBE has completed a series of case studies on several leading Green Gazelles. These case studies are available at their web site: **www.greengazelles.org.**

The point CSBE and SBAM are trying to make is this: ***there will be no transition to an environmentally sound economy without Green Gazelles leading the way.*** We believe that Green Gazelles represent a rigorous, viable alternative to centralized "command and control" techniques of environmental protection. In the context of globalization, Green Gazelle's offer a decentralized, market-based, non-bureaucratic and non-regulatory approach to economic growth, cost effective environmental restoration and new high value jobs. Towards this end, we promote the formation of federal state and local public policies designed to stimulate Green Gazelle formation, retention and expansion.

For example, in Michigan, SBAM, in collaboration with CSBE, Michigan State University and the economic development community, operates a Green Gazelle Business Development initiative. As one of our leading Gazelle clients, Tim Colonnese, President, KTM Industries has aptly stated, ***"this is what Homeland Security is really about, stimulating business growth, job creation and economic development while solving major environmental and energy security problems for our country."***

Mark H. Clevey, M.P.A., Vice President, Entrepreneurial Development, Small Business Association of Michigan, 222. N. Washington Square, Ste 100, P.O. Box 16158, Lansing, MI 48901-6158. Tel: (800) 362-5461 FAX: (517) 482-5205 Email: mhc@sbam.org

A central part of our program is to help Green Gazelles procure Small Business Innovation Research (SBIR) and related federal grants to research, develop and, most importantly, commercialize breakthrough green products. We also work with Green Gazelles to remove regulatory barriers to their growth, develop high growth business plans and target and access markets ripe for technology insertion. Lastly, we work to aggregate customers and markets for products produced by our Green Gazelle clients. For example, we founded the Michigan Interfaith Power and Light organization consisting of congregations across the state. This organization facilitates the bulk purchase of energy efficiency, renewable energy and green products from our Green Gazelle clients. Our program has won several national awards for excellence, including a recent National Award from the U.S. EPA Energy Star program.

I thank you for the opportunity to bring the work of the Center for Small Business and the Environment and our Michigan Green Gazelle Development Program to your attention. I will be happy to answer any questions for provide additional information.

About Mark H. Clevey

Mark H. Clevey is a *"Social Entrepreneur"* who designs and secures funding for model business projects that have high social and economic impact. He is a veteran of the U.S. Air Force and a Western Michigan University Honors College Graduate where he received two academic scholarships. He holds a Masters Degree in Public Administration (MPA), with emphasis in new industry development and public-private partnerships. He is also a member of Kappa Delta Pi (Honors Society in Education).

Mark has over 30 years of experience in cutting-edge business development and is a specialist in government R&D grant procurement. Currently Mark is the Vice President, Small Business Association of Michigan (SBAM). Founded in 1969, SBAM is one of the largest state based organizations in the U.S. dedicated to the interests of small businesses. In this capacity, he also serves as the Vice President of the Small Business Foundation of Michigan and Director of several key programs including the SBAM Entrepreneurial Development Center and Michigan ENERGY STAR Programs. Since 1985, Mark has served as the Director of the nationally recognized, award-winning program to stimulate the creation, retention and expansion of high growth potential small businesses. This program has gained national recognition for promoting the growth of small businesses involved in the research, development and commercialization of Environmental Conscious Solutions (i.e., "Green Gazelle").

In recognition of his expertise, Mark serves as a Small Business Innovation Research (SBIR/STTR) Phase II Commercialization Plan Reviewer for the National Science Foundation, Environmental Protection Agency and U.S. Department of Energy. He has also served as a Business Plan Reviewer for the NIST Advanced Technology Program (ATP). Mark has received several state and national awards including: Special Projects Award ("Winners Program") (1990), MI Small Business Development Center Network; Innovation Advocate for the Year (1991), U.S. SBA; Innovation Achievement Award (1995), U.S. SBA; Tibbetts Award ("Model of Excellence") (1996), U.S. SBA; Vision 2,000 Award (1999) (Model Economic Development Program), U.S. SBA; 2000 Advance America Honor Role, American Society of Association Executives; and Award for Excellence (2003), ENERGY STAR Small Business Program

Mark also has served as an advisor to the National Academy of Sciences on a review of federal research and development funding programs for small high tech firms. Mark currently serves on the Board of Directors of the Center for Small Businesses and the Environment (CSBE) in Washington DC where he leads a national project to address environmental issues by fostering the growth of high growth potential small environmental and renewable energy businesses ("Green Gazelles"). He is also a Member of the Western Michigan University Industrial Advisory Board and the National Governors Association, Entrepreneurial Academy.

Mark H. Clevey, M.P.A., Vice President, Entrepreneurial Development, Small Business Association of Michigan, 222. N. Washington Square, Ste 100, P.O. Box 16158, Lansing, MI 48901-6158. Tel: (800) 362-5461 FAX: (517) 482-5205 Email: mhc@sbam.org

Statement of William H. Farland, Ph.D.
Acting Deputy Assistant Administrator for Science
Office of Research and Development
U.S. Environmental Protection Agency
Before the
Subcommittee on Regulatory Reform and Oversight
Committee on Small Business
U.S. House of Representatives
April 22, 2004

Good morning, Mr. Chairman and Members of the Committee. I am honored to appear before you today to discuss the U.S. Environmental Protection Agency's activities to support development and implementation of innovative environmental technologies, many of which emphasize support for small businesses. The U.S. Environmental Protection Agency (EPA) welcomes the interest of the Committee in this vital area. We believe innovative technologies lead to more cost-effective environmental protection and growth in jobs and the economy. More broadly, innovative technology can play an important role in moving to a model of environmental protection built on the principles of sustainable development, allowing us to achieve economic growth and improved quality of life while protecting the environment.

EPA strongly encourages actions of the private sector to improve environmental protection. Creating or employing technologies to reduce pollution at its source, increasing recycling and recovery, finding less costly ways to treat or remediate pollutants are all ways being developed to lessen impacts on the environment. These technologies reduce the cost of complying with regulations and make environmentally-friendly voluntary efforts possible. These same activities are also creating new jobs and a growing economy. We salute the small businesses, such as Green Gazelles, who are leaders in this area. EPA will continue to support efforts by the private sector, especially small businesses, to implement technology innovations for environmental protection. I will describe today EPA programs, such as the Small Business Innovation Research (SBIR) program.

Background

EPA Administrator Michael Leavitt identified technology as one of the cornerstones of moving to a "better way" of achieving environmental protection. Innovative technologies typically offer more effective and lower cost solutions to environmental problems and, in some cases, offer answers to otherwise intractable problems. New technologies are needed to improve all aspects of environmental management, including monitoring, prevention, homeland security, treatment and remediation. EPA's programs address each of these areas.

The development of environmental technologies is primarily the role of the private sector. EPA's programs are designed to support private development by addressing specific barriers that discourage or hold back the development and adoption of these technologies, particularly those barriers faced by small businesses.

In the FY 2003 House Appropriations Conference Report 108-10, page 1438, Congress directed the Environmental Protection Agency (EPA) to A*develop a >one-stop shop= office to coordinate similar programs which foster private and public sector development of new, cost-effective environmental technologies*." In October 2003, EPA submitted a report to Congress that outlined its plans to address this charge, including the development of a new one-stop-shop web portal, the Environmental Technology Opportunities Portal (ETOP), and the establishment of an Environmental Technology Council to coordinate Agency technology programs. I will describe these efforts later in this testimony.

EPA Research programs to Support Technology Development and Application

EPA has a number of primary programs that provide support to the public and private sector for the development of new, cost-effective technologies. These technology development programs are managed and coordinated through EPA=s Office of Research and Development (ORD). ORD=s technology support programs are complementary, and provide a continuum of support from early stage research to late stage commercialization. Table 1 provides a tabular overview of these programs.

Small Business Innovation Research (SBIR). While small businesses have historically accounted for over half of the innovation in the U.S., they often have difficulty getting equity capital for technology development. This is a particularly acute problem with regard to environmental technologies, where regulatory changes can quickly change market opportunities and discourage private capital providers. The SBIR program starts with early stage (proof-of-concept) research and continues through a second phase of funding to produce a commercial prototype.

The SBIR program is mandated by Congress under the Small Business Reauthorization Act of 2000. The SBIR program's technology priorities are identified by EPA's program and regional offices, and include technologies related to clean air and water, hazardous and solid waste, pollution prevention, remediation, monitoring and homeland security. The selection of SBIR recipients includes a rigorous review to ensure that the projects meet EPA's needs and program priorities, are technically sound, have significant environmental benefits, and have broad application and impact.

As an example of the SBIR approach on areas of priority, our recent 2004 SBIR solicitation EPA is focusing a significant portion of the program on pollution prevention and hazardous waste minimization. Working with EPA's program and regional offices, the Agency is soliciting highly relevant proposals to address pressing environmental challenges. These solicitations specifically request green chemistry and engineering innovations for alternatives to high priority

chemicals and environmental challenges, ranging from inherently benign flame-retardants to lead and mercury alternatives to green building design. These newly solicited projects will become part of a legacy of pollution prevention technology developed under SBIR.

Numerous SBIR-funded technologies have been successfully commercialized and are making significant contributions to cost-effective environmental protection. A number of examples of SBIR success stories are available at http://es.epa.gov/ncer/sbir/success/. Many of these companies embody the characteristics ascribed to Green Gazelles. A company supported by EPA's SBIR program that is currently listed as a Green Gazelle is T J Technologies, which has developed a technology to break down perchlorate in drinking water. Other successful SBIR companies from the list of success stories include: EnerTECH Environmental, Inc. which developed and commercialized an innovative process that converts municipal sewage sludge, solid waste and other organic wastes to a high energy, clean burning fuel; and, NITON, LLC which commercialized a hand-held instrument to detect lead in paint, now the industry standard with thousands in use worldwide.

Environmental Technology Verification (ETV). For years, technology developers have been stymied in their efforts to sell new, innovative technologies because potential buyers are often unwilling to take the risk that the technology will not perform as claimed by the developer. EPA's ETV program verifies performance data of commercial-ready technologies in an effort to encourage their use. While EPA provides no funding to developers, EPA provides roughly 70 percent of total ETV program costs, primarily through cooperative agreements that provide financial support for third-party test centers. EPA's substantial involvement with these centers includes quality assurance oversight of the testing, reporting results, and assistance with outreach. Many of the companies for which verifications have been completed are small businesses. To better integrate the SBIR and ETV programs, and to help defray the cost of verification for small businesses, EPA now offers an option to SBIR Phase II recipients to receive an additional $25,000 to be used toward their cost of technology performance verification through the ETV program.

Superfund Innovative Technology Evaluation (SITE). SITE encourages the development and application of innovative technologies to clean-ups at Superfund sites. SITE focuses on commercial-ready technologies and provides for field testing at actual contaminated sites. The testing and documentation of the technologies is similar to that done in the ETV program (which defers to SITE for remediation technologies). Technology developers are not given funding directly and must bring their equipment to the site for testing. EPA conducts the testing and documents the results. As reported in the SITE report to Congress of FY 2001, estimated total cost savings of clean-ups from the program are $2.6 billion.

National Environmental Technology Competition (NETC). The NETC is a program designed to competitively seek the best commercially developed new technologies to cost-effectively address certain high-priority National environmental problems. EPA

seeks to identify the best-developed technologies and to support their broad application in solving problems. The support for "first users" through longer-term field demonstrations has been widely recognized in assuring that technologies are broadly accepted. It is often an important step that extends beyond the ETV performance verification and is appropriate for critical needs such as cost-effective removal of arsenic in drinking water. Using NETC and other resources EPA has supported 12 demonstrations of arsenic removal technologies for small drinking water systems. Another 16-20 demonstrations are planned.

STAR research grants. Research funding under the Science to Achieve Results (STAR) program addresses the need for research to provide a foundation on which others in the public (particularly the private sector) can build. Only universities and non-profit organizations are eligible, but research results are widely publicized and broadly available. Many small technology development companies are started by or employ former academics who patented technologies developed as part of their research. EPA's technology research under STAR has focused particularly on environmentally benign engineering and nanotechnology.

Cooperative Research and Development Agreements (CRADAs). EPA makes available its unique research facilities and expertise through CRADAs. CRADAs can serve many purposes, but usually are intended to transfer intellectual property or to cooperate in final development or testing to make a technology commercially available. In some cases these are technologies that EPA developed in its laboratories that are being licensed to a private company. In others, a private company uses EPA's expertise or facilities to complete final testing or development of their technology. This opportunity is particularly attractive to small and medium sized businesses, which comprise the majority of EPA's CRADA partners to date.

Other Relevant EPA Technology Programs

Examples of additional environmental technology activities or programs that benefit small businesses are described briefly below. Additional information is available through the technology web portal at www.epa.gov/etop.

Environmental Technology Opportunities Portal (ETOP). In December 2003 EPA established a one-stop-shop web portal that is designed to assist small businesses and others to find information and support for technology development and application. The portal is designed with separate information "tracks" for technology developers and technology users. These tracks lead to information such as financial support opportunities, demonstration and verification programs, and partnering opportunities, including links to programs in other agencies and links to non-government information sources. This rich one-stop information resource expands the information readily available to developers and users, and is intended to promote better and more cost-effective protection of human health and the environment through use of this information.

Center for Environmental Industry and Technology (CEIT). The mission of EPA Region 1's CEIT is to be a window to resources, people, and programs for the environmental technology industry in New England and to promote the acceptance of innovative technologies to solve the most significant environmental problems in New England. Through a web site and other information tools, including an on-line network called Technology Connection, the program has successfully matched private technologies with technology needs in the region, leading to practical solutions to environmental problems. Small businesses have been frequent CEIT customers.

Green Chemistry Challenge. The Office of Prevention, Pesticides and Toxic Substances (OPPTS) conducts an award competition in partnership with the American Chemical Society to recognize development of innovative chemicals and processes that reduce or eliminate hazardous substances. A small business category is included in the competition.

Design for the Environment. OPPTS has a partnership program which involves working with individual industry sectors to compare and improve the performance and human health and environmental risks and costs of existing and alternative products, processes, and practices. Many sectors are dominated by small businesses such as auto refinishing, printing, and garment care.

Future Efforts

EPA plans to continue strategically focusing the above programs to ensure that they meet clearly defined objectives and produce measurable benefits. In addition, EPA is planning two new efforts that will better focus environmental technologies on the most significant environmental problems, and identify potential new ways of stimulating progress in development and application of these technologies.

Environmental Technology Council. EPA is establishing an Agency-wide council, to include state and other federal agencies, to coordinate and focus technology efforts on high priority environmental problems. In addition to targeting problems where technologies are needed for cost-effective solutions, the council will establish a broad network of public and private sector technology users and providers to speed progress.

National Advisory Council on Environmental Policy and Technology (NACEPT). EPA is establishing an Environmental Technology Subcommittee of the NACEPT, a formal Federal Advisory Committee Act (FACA) advisory committee to the Agency. This Subcommittee of external experts will both recommend any ways of improving EPA's existing technology support programs and identify any new efforts that may be needed to support private sector efforts in this area.

Conclusion

EPA believes that innovative technologies are central to achieving better, cheaper and faster environmental protection. The role of small business is vital in developing and applying these technologies, creating new jobs and enhancing U.S. competitiveness. EPA applauds the "Green Gazelles" and other companies who have demonstrated success in this area. EPA will continue to improve its programs to enhance the potential of these companies to succeed.

Table 1

EPA's Office of Research and Development Technology Development Support Programs

Program	Type of Assistance	Development Stage	Eligible Entities	Responsible ORD Organization
SBIR	Financial Support - Contracts	Proof of Concept to Commercial Prototype	Small Businesses	NCER
ETV	Verification Centers and Test Protocols[1]	Commercial-Ready	Public or Private Organizations	NRMRL[3]
SITE	Field performance tests[1]	Commercial-Ready	Public or Private Organizations remediation only	NRMRL
NETC	Demonstrations[1]	Commercialization	Public or Private Organizations	NCER and NRMRL
STAR	Financial Support – Grants	Research	Universities and Not-for-Profits	NCER[2]
CRADA	In-Kind	Various	Public or Private Organizations	Office of Science Policy

[1] Indirect support of performance testing. No direct funding to the entity.
[2] National Center for Environmental Research
[3] National Risk Management Research Laboratory

○