Science & Environmental Health Network
2012 Annual Report

The Science & Environmental Health Network (www.sehn.org) is a practical, visionary think tank serving the environmental and public health movements. Since 1994, SEHN’s transformative work has changed the story of environmental health – from a chemical-by-chemical analysis of allowing acceptable risk, to an ecological model of preventing harm.

SEHN was a force for change in 2012. SEHN’s complexity model of health shifted the national paradigm on understanding causation of disease, and the most effective points for intervention. The First Women’s Congress for Future Generations, conceived of and co-sponsored by SEHN, launched novel ideas on the Rights of Future Generations and set a new movement in motion. SEHN’s “Law for the Ecological Age” program is a nationally-recognized authority on chemical policy reform, with government agencies like the California EPA and the offices of the California Governor Jerry Brown and Attorney General Kamala Harris seeking our counsel.

The Ecological Crisis in 2012:

We live on a finite planet, and yet human activity continues to grow as if our natural resources were never ending. Our economic system rewards unfettered growth without regard for environmental sustainability. Our legal system regulates environmental harms one-by-one, as if they exist in isolation from one another. Meanwhile, our bodies and environment are bombarded with hazards that we simply cannot absorb.

In 2012, our health, environment, and economy were threatened as never before. Our political system wrestled with real-time decisions about hydraulic fracking, tar sands, new pipelines and other technologies that threaten to make our problems even worse. Climate change, exposure to toxic chemicals, and ecosystems on the brink of collapse caused unprecedented harm.

We need a vision for the future that brings us back to life and health, and extends beyond our own generation.
The Way Forward:

The Science & Environmental Health Network has created solutions for a healthier future for over 15 years. Beginning with the precautionary principle, SEHN has led the way in developing big ideas and implementing them on the ground, where they serve community struggles for health and environment. As Board member Peter Montague says, “SEHN has a great blend of the radical and the practical. SEHN has it all – from the big ideas down to ’let’s make it happen.’”

Creating social change is a process, and SEHN’s work exists along that continuum. Building upon the ethical foundation of precaution, SEHN has developed a suite of solution ideas that move us forward into the new century:

❖ **Solution Idea One: Ecological Medicine**

Ecological Medicine considers the health of our ecosystems with the health of our bodies, and incorporates social stressors such as poverty and racism into a complexity model of health.

**Ideas in action:**

In 2012, SEHN's Ecological Medicine analysis influenced organizations ranging from the New York Academy of Medicine to the AARP. *Yes! Magazine* profiled SEHN Science Director Dr. Ted Schettler in “Why Your Health Is Bigger Than Your Body,” highlighting our systems-focused approach.

SEHN’s ecological framework is creating new opportunities for moving beyond chemical-by-chemical regulation. Large, influential organizations are taking up these ideas, including groups of funders and a major asthma conference. SEHN’s relationship-building work with powerful groups like AARP came to fruition in 2012, with that group and others proclaiming their conceptual shifts toward our ideas. Teaming up with other NGOs, we kept events such as the National Academy of Sciences report on risk assessment in the public eye, not allowing the U.S. Environmental Protection Agency to neglect opportunities for reform.

**Collaborative on Health and Environment (CHE):** SEHN’s Ted Schettler is also Science Director of CHE, an international partnership with thousands of members committed to strengthening the scientific and public dialogue on environmental factors linked to chronic disease and disability. In 2012, Schettler served on the CHE core committee, posted scientific studies to listservs, wrote articles, planned conferences, and consulted with many members. He also taught environmental health trainings with CHE (three in 2012), incorporating SEHN’s ecological model of health into reproductive health, breast cancer, and healthy aging.

**Health Care Without Harm (HCWH):** Schettler plays a pivotal role in HealthCare Without Harm, an international coalition leading the global movement for environmentally responsible health care. He focuses on the Safer Chemicals and Food workgroups. Schettler brings the ecological model into HCWH work, and frames a transformative health care agenda.
Solution Idea Two: Guardianship of Future Generations

Guardianship of Future Generations establishes rights for those who will come after us, and responsibilities for those of us who live today. It also gives us methods for carrying out our responsibilities.

Ideas in action:

SEHN Executive Director Carolyn Raffensperger conceived of the Women’s Congress for Future Generations, which SEHN co-convened in September 2012. Our goal was to fulfill the special responsibility that women hold as the first environment for Future Generations. A product of the Congress is a living draft Declaration of the Rights Held by Future Generations and Bill of Responsibilities for Present Generations. The Congress generated huge enthusiasm, and new local groups have formed and are active around the country, moving the work forward.

SEHN is creating a space in the law for Future Generations and proposing new institutions such as ‘Guardians for Future Generations’. In 2012, Raffensperger developed the Principles of Perpetual Care for the Giant goldmine in Canada, which has poisoned past and present generations, in addition to threatening ten thousand generations to come. The Principles of Perpetual Care are now being adopted by other communities faced with severely contaminated sites.

Free, Prior, and Informed Consent is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy, or otherwise use. Free, Prior, and Informed Consent has been enshrined in several treaties and declarations, including the U.N. Declaration on the Rights of Indigenous People.

In 2012, SEHN began work to establish Free, Prior, and Informed Consent as a community right within the framework of the Precautionary Principle and Future Generations. This involves justifying the creation of a new right, and also creating new institutions and mechanisms for exercising this right. One such application could be the creation of Community Review Boards, modeled after the Institutional Review Boards that oversee testing of human subjects in universities and hospitals. A Community Review Board would similarly set standards and have community representation into making decisions before harm occurs.

Solution Idea Three: Cumulative Impacts

Cumulative Impacts recognizes that incremental harms such as industrial pollution, toxic chemicals in consumer products, and deforestation add up, one-by-one, until they are simply overwhelming for life on Earth. And that we need a regulatory system that considers the totality of environmental harms when making decisions about the future.

Ideas in action:

SEHN’s Cumulative Impacts Project, a collaboration with the Collaborative on Health and Environment, shined a national spotlight on the idea of regulating multiple harms. Creating the
understanding that the world is defined by cumulative impacts was an important start, and in 2012 we engaged in the nitty-gritty task of working with those on the ground to find points of intervention that change the game for greater health and resilience.

Our Cumulative Impacts Working Group is unusual in its cross-sectoral membership, with government regulators, academics, and community advocates creating a proving ground for the emergence of these ideas. In 2012 we held conference calls for practitioners, serving as a vital national information exchange and collaboration. We also prepared a paper for publication outlining best practices in cumulative impacts.

We keep the www.cumulativeimpacts.org website updated with the latest science and best practices. This involved regular updates in 2012 and currently continues as new material emerges.

In California, SEHN Legal Director Joe Guth served on CalEPA’s Cumulative Impacts and Precautionary Approaches Workgroup. He wrote and spoke widely about cumulative impacts in decision-making, and advocated for cumulative impacts consideration in chemicals policy reform.

Solution Idea Four: Law for the Ecological Age

Law for the Ecological Age teaches that our laws must serve our present circumstances and protect health and environment, not just privilege economic growth over all.

Ideas in action:

SEHN’s legal work spanned the spectrum of practical to visionary in 2012. We were hands-on in implementing the new green chemistry regulations in California, and simultaneously advocating for the rights of Future Generations. SEHN believes that both strategies are necessary to move toward meaningful reform.

SEHN is a leader in reforming how toxic chemicals are regulated in California and nationally. We are active members of statewide and national coalitions that highlight the voices of community groups, parents, health professionals, and others to call for safer chemicals in our daily lives. Ted Schettler is on the steering committee of the Safer Chemicals Healthy Families coalition, attended the 2012 planning meeting, and serves on the health professional subcommittee. He updated “Chemicals and Our Health” (data summary justifying Toxic Substances Control Act reform), and reviewed a video advocating for reform (Joe Guth is featured in the video).

Schettler works with HealthCare Without Harm to garner support for chemical policy reform, and circulates new science about chemicals. In 2012, Guth also participated in the SCHF coalition, and Associate Director Katie Silberman met with Senators and media in Washington, D.C. to advocate for the Safe Chemicals Act.

In California, Guth serves on the CalEPA Green Ribbon Science Panel; participates in the
CHANGE coalition (NGOs advocating for greener chemicals), writes comments on green chemistry regulations, and meets with government staff. He also writes, speaks, and does media work on chemical policy, including giving presentations at the California Bar Association Environmental Law Conference and West Marine's Green Chemistry Conference. In addition, he consulted with the Government of Mexico on implementing chemical policy.

In order to implement legal strategies that promote environmental justice, Guth serves on CalEPA’s Cumulative Impacts & Precautionary Approaches Workgroup, created by environmental justice mandate. In 2012, the group neared completion of the landmark CalEPA report on evaluating cumulative impacts across communities.

✧ Growing the Movement: Public outreach.

Our extensive public speaking creates broad support for environmental health interventions. People regularly approach SEHN staff to say how our work has changed their outlook. SEHN also dramatically increased our social media presence in 2012, growing our Facebook, Twitter, and website, and overall web presence. This directly influenced our ability to reach the grassroots and grow an informed advocacy movement for environmental health and justice.

SEHN staff members were interviewed for 47 published stories in 2012, and reviewed manuscripts for Environmental Health and other publications. SEHN staff were quoted in The New York Times, The Huffington Post, TIME Magazine, WebMD, AARP Magazine, Martha Stewart Living, Mother Jones, and Yes! Magazine, among other publications.

In 2012, SEHN staff were featured speakers at more than 60 events, including TEDx Maui, Bioneers, the American Public Health Association, the American Bar Association, the American Medical Association, the Environmental Ministry of Mexico, Yale University, UC Berkeley, and many other major venues.

✧ SEHN’s Theory of Change

SEHN has developed a strategy and theory of change, based on the two-prong approach of (1) increasing public awareness and (2) changing decision-making institutions. Our complexity model pays particular attention to points of intervention: where are the most effective places to intervene in a system, and when? We focus on changing system dynamics and operating systems.

Intervening in complex systems is difficult, and yet we have uncovered sites where real change can and is happening. For example, new laws, legislation and regulations addressing cumulative impacts are in place in state agencies in Minnesota and California, in federal regulatory agencies like the U.S. EPA, and in local ordinances on the ground in New Jersey and other communities. Green chemistry is developing piece-by-piece, but inexorably, in state agencies, universities, and, very significantly, in public awareness.

We know our interventions are effective because we see laws change, university curricula change, public conversations shift and the media telling our story.
Evaluation

We track both quantitative and qualitative effects of our work. In 2012 we saw the ideas of an ecological model of health, and rights for Future Generations, explained coherently in the media and move into public policy. We are now seeing universities teaching these ideas, the national research agenda shifting to incorporate this thinking, and ever increasing press stories and policy changes based on this work. We feel we’re going in the right direction when colleagues - from grassroots Indigenous groups to associations of funders - respond enthusiastically and want to get involved and do more. The demand for SEHN’s work continues to grow.

SEHN Staff, 2012

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Nancy Myers and Danielle Nierenberg (subsequent), Communications Director
Sherri Seidmon, Finance Director
Katie Silberman, Associate Director
Ted Schettler, Science Director

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