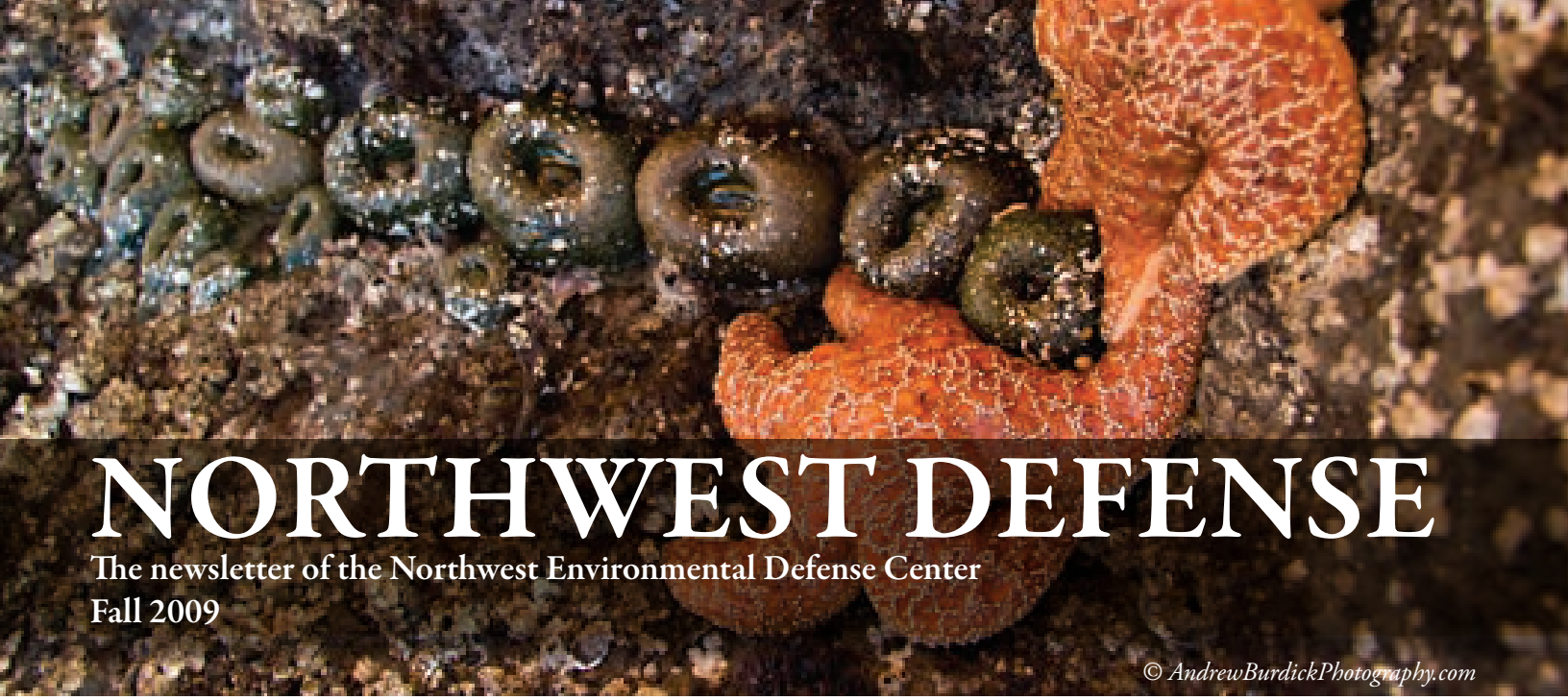

NORTHWEST DEFENSE

The newsletter of the Northwest Environmental Defense Center
Fall 2009

Protecting Drinking Water from the Risk of Groundwater Contamination

By Andrew Hawley and Andrew Newkirk

Clean, safe drinking water is a resource Portland residents have come to rely upon. Since 1895, the City of Portland has received its drinking water primarily from the Bull Run watershed. Protected as the Bull Run Watershed Management Unit, the 102 square-mile watershed provides the city's 800,000 residents with near-pristine water. In 1975, the city also developed and opened the Columbia South Shore Well Field in order to provide a back-up water supply, and for seasonal augmentation as needed. Drawing from 25 wells, and capable of producing close to 100 million gallons per day, the massive, four-aquifer system covers 11 square miles in Portland, Fairview and Gresham.

A recent New York Times series, titled *Toxic Waters*, surveys water pollution problems across the country, and shows how lucky Portland residents are to have a clean, reliable source of drinking water. Unfortunately, as reported by the Times, an estimated ten percent of Americans have been exposed to dangerous chemicals or other harmful pollutants through their drinking water, and an estimated 19.5 million Americans become ill each year from contaminated drinking water.

Oregon is not immune from the risk of contaminated drinking water. For example, to protect the Columbia South Shore Well Field as a viable drinking water source, the cities of Portland, Gresham and Fairview adopted rules regulating area businesses that use and store hazardous materials posing a threat to groundwater. Largely absent from these regulations, however, are specific controls on Underground Injection Controls (UICs). UICs are mechanisms designed to dispose of polluted wastewater or stormwater underground rather than directing the discharge to surface waters. UICs range from the common drywell, found in many parking lots, to complex industrial facilities used to dispose of ultra-hazardous materials nearly a mile underground.

Unregulated, UICs may pose serious threats to the environment and human health, as discharges from UICs have the potential to contaminate groundwater sources. Potential groundwater contaminants include heavy metals, toxic organics, nutrients,

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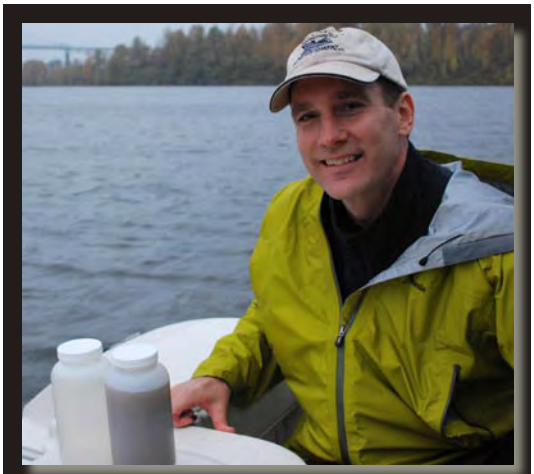
Schnitzer Steel Stormwater Solution

NEDC's resolution of its enforcement action against Schnitzer Steel will result in a major stormwater pollution control system upgrade at the site. Schnitzer's 80-acre industrial property on the banks of the Willamette River in Portland Harbor is the location of a former World War II ship building facility. Unfortunately, much of the stormwater infrastructure underlying the property dates to that era as well.

NEDC's settlement with Schnitzer requires the company to:

- Completely retrofit the outdated system on an expedited time line.
- Increase monitoring during the upcoming rainy season to insure the system is functioning properly.
- Contribute $90,000 to fund a USGS stormwater study aimed at characterizing pollutant contributions to the lower Willamette River basin based upon land-uses.
- Donate $10,000 to the National Waterkeeper Alliance for water quality monitoring or educational work. ■



Mark Riskedahl on a stormwater sampling trip to Schnitzer Steel, with a background sample of Willamette River water in one bottle and contaminated stormwater run-off collected from a Schnitzer Steel outfall in another.

Former NEDC Student Director and Law Clerk Recipient of Williamson Award

Each year, the Lewis and Clark Law School Environmental Alumni Association chooses a graduating student to receive the Williamson Award. The Williamson Public Interest Environmental Law Award is presented by the association to recognize a graduate who has demonstrated commitment, vision, leadership, and creativity in the field of public interest environmental law. The intent of the award is to honor a graduating student who has worked as a public interest advocate during law school and plans to continue in this work after law school. The award carries a $1,000 cash prize, donated by alumni interested in supporting public interest environmental law on campus.

This year's recipient is Kristen Monsell. Kristen performed amazing work on an exceptionally broad array of NEDC projects throughout all three years of her law school career. She played a major role in helping secure most of NEDC's key victories during that time period. We are truly appreciative of the outstanding work she did on behalf of NEDC as a student, and excited she was chosen as the recipient of this year's Williamson Award.

Kristen's award will be presented prior to the Natural Resources Law Institute's Distinguished Environmental Visitor guest lecture at 6:00 p.m. on Thursday, October 1st, on the law school campus. ■

NEDC Settlement Funds Innovative Classroom Design

In 2005, NEDC sued the Owens Corning Corporation for unlawfully commencing construction of a polystyrene foamboard manufacturing plant in Gresham without first obtaining a Clean Air Act permit. NEDC board member Dona Hippert brought this matter to our attention initially, and attorneys Allison LaPlante and Melissa Powers did amazing work on the case, obtaining a precedent-setting decision concerning localized injury/harm from global phenomena such as ozone depletion and climate disruption.

After protracted negotiations, we chose to settle the case. The settlement required Owens Corning to use a blowing agent in its manufacturing process that was much more environmentally-friendly. The company also agreed to seek LEED-certification for its manufacturing facility, and committed $300,000 to a number of environmental projects, including $125,000 to the Bonneville Environmental Foundation for solar demonstration projects at various Portland public schools.

One of the other keystone projects that the company agreed to fund was an innovative net-zero energy consumption, high-performance classroom at DaVinci Arts Middle School in Portland. The just-completed classroom is the first LEED-certified public school building in the world. Daylight enters the classroom through a large central skylight, and is then filtered through special louvers and bounces up onto the sloping ceilings off a suspended fabric reflector. The light is then diffused back down into the classroom space, evenly distributed across the entire room. This makes for unsurpassed natural lighting conditions on even the cloudiest of days. Photovoltaic shingles capture enough energy from the sun to meet the super-insulated building's other energy needs.

At the Portland Public School's grand opening ceremony for the classroom on September 12, science teacher Dan Evans, one of the primary visionaries behind the project, reflected fondly back upon the day he learned $125,000 in funding had suddenly become available for the project. NEDC had spent many hours working with Portland Public Schools to identify an energy-saving project such as this that could be funded with Clean Air Act lawsuit settlement dollars, and Dan learned of our interest once the agreement with Owens Corning was finalized. Though he had dreamed of getting the project off the ground for many, many months, the funding from NEDC's settlement "provided a snowball effect that triggered other funding sources, enabling everything to magically fall into place".

Feel free to stop by the DaVinci Middle School at 2508 NE Everett St. in Portland to check out the classroom in person. ■

Gerlock Towing Commits to Reducing Pollution

Gerlock Towing and Heavy Haul in NE Portland was the most recent target of NEDC's ongoing Columbia Slough Clean Water Act enforcement work. Like numerous other industrial sites in the Columbia Slough watershed, a portion of Gerlock's property was surfaced with contaminated foundry slag from Oregon Steel Mills many years ago.

As a result of our enforcement action, the company agreed to re-surface the portion of its lot containing the foundry slag, install a large new vegetated swale to reduce polluted run-off to the Columbia Slough, increase water quality monitoring frequency, and to donate $10,000 to the Columbia Slough Watershed Council in support of that organization's Eyes on the Slough volunteer water quality monitoring program, Slough School educational work, and Great Slough Clean-up effort. ■

(Protecting Water...Continued from page 1)

pesticides, salts and microorganisms, such as E. Coli. Groundwater quality, in turn, affects surface waters, as the two are intertwined. Groundwater recharges rivers, streams and lakes during the dryer summer months, while the direction is reversed in winter.

The Unseen Stormwater Problem

UICs present a largely unseen problem in Oregon. As NEDC has highlighted, the direct discharge of pollutants into surface waters from urban areas and the state's roads are major sources of water pollution in the state. Many areas in Oregon, however, do not have municipal stormwater systems designed to convey stormwater to surface waters. Where these systems do not exist, drywells and other UICs typically are used to manage storm runoff from roads and other developed areas. Although industrial facilities use UICs such as sumps, drywells, trench drains, floor drains, septic tanks and drainfields to discharge process wastewater, the vast majority of the estimated 48,000 known UICs in the state are used for the disposal of potentially contaminated stormwater. For example, the City of Portland alone has over 10,000 UICs permitted for stormwater disposal.

Untapped Potential

The Safe Drinking Water Act (SDWA), in part, protects underground sources of drinking water from contamination by the underground injection of contaminated water that may endanger a drinking water source. National primary drinking water regulations specify the maximum contaminant levels for ninety different contaminants in water delivered through a public water system.

Pursuant to the SDWA, the Department of Environmental Quality administers the UIC program in Oregon. As recently as 2006, DEQ contemplated turning the UIC program over to the Environmental Protection Agency because of inadequate funding and staffing resources. After years of neglect, DEQ has recently stepped up its efforts to regulate UICs throughout Oregon. Since then, DEQ has instituted a new permit fee program, which will provide the Department with the resources necessary to maintain the program.

Oregon prohibits the underground disposal of wastewater including pollutants which may cause a violation of drinking water standards. Oregon specifically prohibits the discharge of many pollutants, such as fluids from industrial or commercial processes that use hazardous substances or toxic materials including petroleum products, fluids directly from floor pits and floor drains at industrial or commercial facilities, and agricultural drainage. Oregon does allow the operation of "Class V" UICs, which include sanitary waste injection systems, certain industrial and commercial waste injection systems, stormwater injection systems, and groundwater management systems. These UICs, unless specifically excluded from regulation, must be operated under the criteria established by DEQ's UIC regulations or be authorized by a permit issued by DEQ.

Oregon's UIC regulatory requirements, if implemented correctly and applied to all UICs throughout the state, have the potential to drive much-needed change in the way we think about and design the urban environment. Specifically, a central component of any stormwater management and pollution reduction system must be a requirement for the use of Low Impact Development ("LID") design principles. LID designs work to store, infiltrate and evaporate stormwater where it falls and rely on the natural properties of soil and vegetation to remove pollutants. LID techniques seek to maintain natural hydraulic conditions, reducing the amount of pollutants introduced into stormwater. Site-level LID elements, such as natural vegetation retention, impervious surface reduction, the use of vegetated swales to capture and retain runoff, and green roofs, have great pollutant reduction potential when used either in combination with a UIC or in place of a UIC. Implementation of LID elements for new development, redevelopment or even retrofitting existing development, may be less costly, or at least no more costly, than conventional practices and will serve to reduce the overall pollutant load entering Oregon's waters and threatening Oregon's groundwater.

NEDC will be advocating, during the upcoming year, for increased use of LID design principles in Oregon, and will be taking a close look at UICs that may pose a risk to Portland's back-up municipal drinking water supply in the South Shore Well Field. ■

Student Summer Work Experiences

NEDC's impact often gets quantified in terms of cases won and settlements struck, but one of NEDC often-overlooked contributions is the opportunities it affords its students. These opportunities include skill-building, networking, and experiential learning. I have been one of the lucky beneficiaries of these opportunities.

Last year, through my work in NEDC's Sustainable Agriculture group, I met local attorneys and activists who gave me guidance and support as I began to chart my own legal career. Additionally, NEDC invited me onto its Board providing me greater experience with legal decision-making and the litigation process. Within my first semester of law school, I drafted substantive comments about genetically engineered crops, conducted water quality sampling from discharge points in the field, and discussed litigation strategy with attorneys on the forefront of environmental law. These experiences proved invaluable in securing a summer internship with the Center for Food Safety (CFS) in San Francisco, which focuses on some of the very same issues I worked on in the sustainable agriculture group. After a rewarding summer at CFS, I am now using additional skills acquired from my internship in my new role as one of the project coordinators for NEDC's Sustainable Agriculture group. Although less easily measured, NEDC's impact goes beyond its litigation record, preparing students to become lawyers poised to make a difference in the field of environmental law.
~ Nate Hausman ■

This summer, I was a legal intern at the Southern Environmental Law Center (SELC). As part of the air team, I primarily worked on litigation concerning Clean Air Act permits for new coal-fired power plants throughout the Southeast. By the end of the summer, I was fortunate to learn that SELC had achieved some level of success in all three cases on which I worked.

At SELC, I realized that clerking for NEDC prepared me well for my summer internship. With NEDC, I developed a practical understanding of substantive environmental law and honed my legal research and writing skills. But most importantly, I learned how to take the initiative to find a legal solution to a local environmental problem. By developing a Clean Water Act citizen suit and taking the lead on public comments for a variety of agency actions, NEDC gave me the confidence to tackle unfamiliar and complex legal issues during my summer with SELC.
~ Elizabeth Zultoski ■

My volunteer work with NEDC last year was a tremendous way to catapult into hands-on legal work on public lands issues across the West. I carried my experience with NEDC into my summer work as a legal intern for the BLM Action Center at the Denver office of the Wilderness Society. My work involved legal research and litigation assistance to support the development of a well-planned transmission grid that integrates renewable energy sources while avoiding sensitive BLM public lands.

The experience helped me understand the challenges of public lands management, such as reconciling short-term land impacts associated with renewable energy development with the long-term challenge of climate change. The experience offered broad exposure to the legal issues currently facing our public lands that I will continue working on while serving as a Lands & Wildlife Project Coordinator this year.
~ Jeff Maslow ■

This past summer I worked with Columbia Riverkeeper in Hood River, Oregon. After my first year of law school in New York, I transferred to Lewis and Clark at the beginning of last school year. The primary reason I transferred to Lewis and Clark was that I felt unprepared to even apply to the types of environmental internships that caught my eye as a 1L. As I began my 2L year at Lewis and Clark, I wanted the chance to get involved in substantive environmental work as soon as possible. NEDC provided me that opportunity. While volunteering with the water group, I got to review files, write comments, and draft a notice letter all within a few months. I also got to meet and talk with practicing attorneys and orient myself to the type of work a non-profit environmental organization does. My NEDC experience provided me with the experience necessary to prepare myself for my work at Columbia Riverkeeper. I don't think I would have felt adequately prepared for the position were it not for my involvement with NEDC.
~ Andy Newkirk ■

Project Groups Update

Air Group

This semester, the Air project group's first major substantive project involves working closely with a Portland neighborhood group to assess the ESCO Corporation's Title V permit application and supporting documents. The ESCO steel foundry in NW Portland emits many tons of hazardous air pollutants and particulates, significantly diminishing local air quality. NEDC student project coordinators are also planning a "toxic tour" of several local facilities in an effort to witness firsthand the local effects of air pollution.

Additionally, student volunteers are investigating the use of hog fuel boilers in Oregon. Many presume that hog fuel boilers combust only wood chips and biomass. However, many facilities use hog fuel boilers to burn inorganic materials such as rubber tires and plastics, creating significant deleterious effects on air quality. Finally, the air group intends to address air pollution from mobile sources. After all, according to the EPA, 50% of the nation's air pollutants escape from mobile sources, and Oregon DEQ claims that 90% of air toxics in Portland come from mobile sources. These projects include researching the effectiveness of EPA's mobile source penalty policy and submitting comments to the Oregon DEQ about pollution problems caused by diesel burning construction equipment, including equipment to be used during the proposed construction of the Columbia River Crossing bridge. ■

Water Group

Under the guidance of four student project coordinators, the Water group will be commenting on a variety of issues and permits as well as pursuing enforcement actions against polluters under the Clean Water Act. The group is also expanding its scope by addressing issues involving the Safe Drinking Water Act and groundwater contamination. Lastly, the water group will continue to work on selecting Oregon candidate rivers or lakes with the goal of obtaining the state's first "Outstanding Resource Water" designation by the end of the academic year.

If you have a kayak that you would be willing to donate or share in support of our Clean Water Act enforcement work, please contact the NEDC office! ■

Lands and Wildlife Group

The Lands and Wildlife group will be looking at proposed projects ranging from in-stream gravel extraction activity to grazing, and working to assess the potential negative effects on wildlife and the natural landscape. As in the past, the group intends to partner with local non-profits, such as the Oregon Natural Desert Association (ONDA) and Bark, to generate student projects commenting and assisting with legal research efforts on developments in Eastern Oregon on BLM and Forest Service lands. On the wildlife front, to further past years' collaboration with the Student Animal Legal Defense Fund (SALDF), the group will be coordinating student research projects on comments to agencies on ESA listing decisions. Additionally, we are hoping to generate a number of projects related to regional issues such as timber sales, gravel mining, and environmental impact statements. ■

Sustainable Agriculture Group

Although the Sustainable Agriculture project group is relatively new to NEDC, its student project coordinators have numerous exciting projects cued up for this academic year. The group will be working on a variety of issues including Concentrated Animal Feeding Operation (CAFO) permit renewals, researching pesticide policy, and commenting on the deregulation of genetically engineered crops. Already students in the group are reviewing and commenting on the compliance histories of individual Oregon CAFO facilities requesting National Pollutant Discharge Elimination System (NPDES) discharge permit renewals, and researching statutes that create pesticide drift buffer zones and protective areas. In addition, the group is working on comments to the EPA about the pesticide glyphosate (marketed by Monsanto as Round Up), and reviewing the Oregon Department of Agriculture's Clean Water Act regulation of agricultural discharges. ■

Highway Runoff Lawsuit Resolved

On September 24, NEDC entered into a settlement agreement with the Oregon Department of Transportation (ODOT) resolving NEDC's claims against the agency related to ongoing violations of the Clean Water Act. Stormwater runoff from over 8,100 miles of state roads is a primary source of water pollution in Oregon, contributing vast quantities of a myriad of harmful pollutants, toxics and sediment into Oregon's rivers, streams and lakes. The agreement requires ODOT to:

- Spend $10 million over the next five years on the construction of water quality facilities, such as treatment wetlands and bioswales
- Conduct a comprehensive inventory of all major discharge outfalls from the state's roads.
- Significantly increase monitoring for toxics, ranging from heavy metals to herbicides, in stormwater run-off
- Implement two important new studies aimed at helping design more effective pollution control measures
- Establish an online database for ODOT's stormwater data, and stormwater management and pollution control program.

ODOT has also committed, for the first time, to fund and hire a position that will enable the agency to seek out and procure federal and private grants for future stormwater control projects.

For media coverage of the ODOT settlement, visit *NEDC's website*. ■

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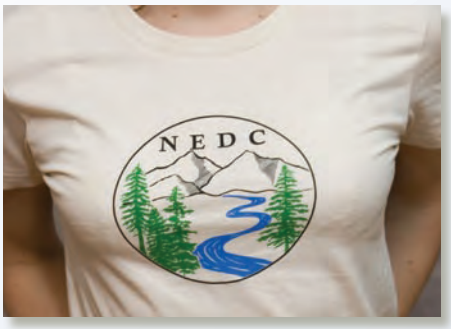

NEDC T-Shirts!

American Apparel T-Shirts are complimentary with your generous donation of $100 or more. T-Shirts are also available for $14.

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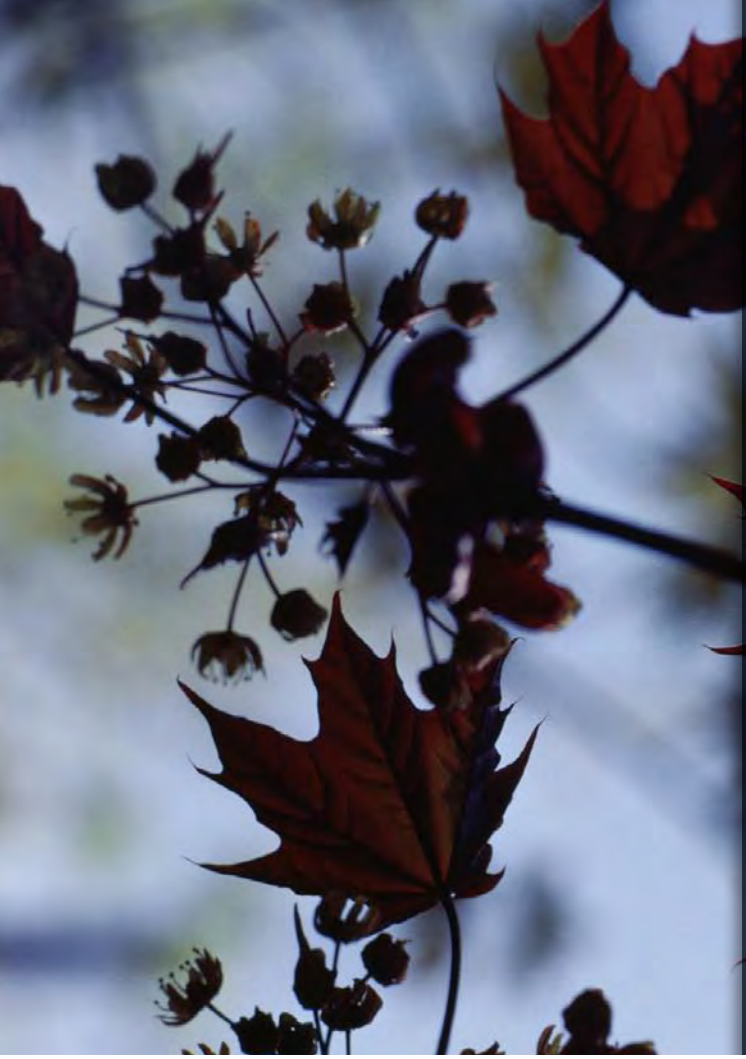
FEMALE: Select tank-top style in Yellow or Blue in S, M, L sizes. Also available in traditional t-shirt style made of organic cotton in Tan in sizes S and M

M or F **Style**_____ **Size**_____ **Color** _____

Please indicate what size, color, and style you would prefer.



Save the Date!

NEDC's 40th Anniversary Party

featuring the NEDC Top 40 Countdown
November 14th *from* 7-10PM *at* the law school

Don't Miss Westwind 2009!

Friday (10/2) - Sunday (10/4)

Please contact our Law Clerk, Bobbie Traverso-Estes, with any questions at roberta@lclark.edu.

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