

Wild Juniper Journal

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Removing the Thorn from Nature's Side: Landmark Agreement Reached in Eastern Oregon

by Asante Riverwind

Appeal Settlement Will Protect Roadless Wildlands and over 30,000 Acres of Old Growth

Months of negotiations by allied conservation groups with the Malheur Forest Service, Grant and Harney County logging interests, and community leaders, culminated in an agreement that protects tens of thousands of acres of sensitive forestlands recovering from two large fires in the Malheur National Forest. The settlement for the Thorn and Egley postfire timber sales will keep bulldozers and chainsaws out of thousands of acres of wilderness-quality roadless areas and over 30,000 acres of old-growth, while allowing roadside 'hazard tree' and other limited logging in less ecologically sensitive areas.

Negotiations successfully resolved three appeals of the Thorn timber sale in an allied effort by the Sierra Club, Blue Mountains Biodiversity Project, Cascadia Wildlands Project, and Oregon Wild. A fourth appeal by timber representatives was also withdrawn. Governor Kulongowski and Senator Wyden joined in favor of a settlement resolution. This unique agreement grew out of collaborative discussions between representatives of parties that have been adversaries for decades. Common ground was reached benefiting both conservation imperatives and local economics, allowing limited logging in already roaded and logged areas, addressing hazards along roadways and campgrounds, while protecting old growth forests and roadless areas for fish, wildlife and recreation. This landmark settlement can help move forest management into a more ecologically sound future for the region's forest wildlands.

Over the last decade, public perceptions and values of forests have changed dramatically. The public wants to see old growth and roadless areas protected while also encouraging scientifically responsible restoration and management.

Increasingly, scientists are finding that the practice of post-fire "salvage" logging delays forest recovery and makes forests more prone to fire in the future. Scientific research recommends post-fire landscapes be allowed to naturally recover; strongly discouraging logging in sensitive burned forests. Initially, Forest Service plans for the Thorn and Egley timber sales included massive amounts of logging in roadless areas and wilderness quality lands spreading across the combined 155,000-acres affected by fires. Instead, the Forest Service has agreed to drop thousands of acres of roadless wildlands, old-growth forest, a research natural area, and additional interior forest habitat from logging. Much of these areas are in a fragile state as they recover from fires that have occurred in the past two years.

The settlement heralds the end of an era when massive timber sales were consid-

ered a sensible or acceptable response to wildfires. Fires have always burned in the region's dry forests, rotating cyclically over time across the landscape. Eventually a policy of logging burned areas would leave no area unlogged and ecologically intact. As fires may increase in frequency and severity due to growing climate change, how we as a society manage post-fire landscapes will play an increasingly pivotal role in shaping the future of our public lands and waters.

Conservation groups struck the deal to protect key roadless areas that have been proposed for Wilderness from logging. The 33,000 acre Murderers Creek Wilderness Proposal has been proposed for thirty years and will remain intact because of the agreement. Core wildlife old growth and travel corridors will not be impacted by roads and logging.

This landmark settlement protects rare ecologically intact areas that have never been logged. Forests here have historically burned and naturally recovered in unbroken cycles spanning thousands of years, and support a wealth of native species biodiversity found in few places in the Blue Mountains. Protecting this area from logging harm allows for eventual wilderness designation, protecting species of concern including wolverine, pine marten, goshawk, woodpeckers, migrant and native birds, steelhead and salmonid habitat, rare forest flowers, and many others.

Under the agreement, the Egley project will include only the removal of trees that may pose safety threats along roads, campgrounds, and management facilities. The Thorn project includes limited logging on less than 1% of the burned forest, only in areas previously roaded and logged. In addition to protecting live old-growth trees and snags (dead trees), the accord specifies no new roads will be built into Wilderness-quality roadless areas, safeguarding habitat for wildlife. The agreement also prevents logging activity in wildlife corridors, along creeks and streams including potential Wild and Scenic Rivers, and Research Natural Areas.

The agreement brought additional changes to a third Malheur logging project, Crawford. This "fire risk reduction/forest health" styled timber sale was successfully appealed a few years ago by BMBP due to logging impacts on forest habitat, soils, road-building, and sedimentation in salmonid waterways. Crawford has since been reduced in size and scope to address ecological issues, with problem units and planned roads dropped. Survey hikes and field trips with agency staff succeeded in bringing changes incorporating conservation concerns. Negotiations achieved additional changes, protecting trees with mature and old characteristics regardless of diameter (all trees over 21" are already protected). While still a scientifically controversial "thinning"

timber sale, Crawford no longer warrants feasible appeal or litigation. Currently slated for decision, it was modified and included in the agreement.

Lastly, the settlement includes an agreement by all parties to work in timely "good faith" in the Starr Wildland Urban Interface "fuels reduction" collaborative project, under the "Healthy Forest Restoration Act" by the USFS. Adjacent to residences and ranches, Starr's roaded logged forests have more common ground potential than projects in ecologically sensitive old growth forests. All parties retain full appeal and litigation rights in respect to Starr. This agreement represents a shift away from unsustainable post-fire logging towards science-based collaborative restoration efforts, building dialogue and cooperation among participants.

This agreement is one of those rare times when people with very different opinions and backgrounds come together and find common ground. It points out the need for Congress to step in, mandating the Forest Service abide by conservation science recommendations against logging in roadless backcountry areas, old and mature growth, and postfire forests, to

prevent environmental harms and avoid conflicts in the future. Ultimately, this agreement represents another essential step towards bringing our society into balance with our remaining natural ecosystems. Together we need to cooperatively address how to responsibly live within Earth's natural balance, and provide for the ecological heritage of the generations yet to come.

Finally, this settlement was only possible due to many months of diligent efforts by our volunteers, attorneys, staff, and allies during this difficult resolution process. Over the past two years Thorn's roadless forests have been hiked, surveyed, photographed, and flown over. These efforts have successfully protected this irreplaceable area from imminent logging harms. This is the second time since the late 1990s when an ecologically irresponsible logging sale has been stopped in this roadless area. Proposed for wilderness designation since the 1970's, it is beyond time to achieve wilderness protection for this ecological treasure, and avoid a similar battle ten years from now. Planning is underway for a summer wildlands celebration – to join please contact us.

The Wolf as a Keystone Species

by Linda Driskill

The Keystone Project of the Grant County Conservationists works to reestablish keystone species and their habitats. These are species that by their presence or absence define local biodiversity. Our particular efforts focus mostly upon beaver, well known for raising water tables and restoring aquatic habitat. We are also very interested in wolf recovery.

When the wolf was proposed some years ago as a keystone species by conservation biologists it was controversial. But research papers documenting the amazing recovery of beaver populations and aquatic habitat in Yellowstone with the recovery of wolf packs have put this behind us. Without their chief predator, Yellowstone elk were over abundant and riparian damage was severe. With the patrolling wolf packs keeping the elk moving, the beaver had a chance to do their keystone thing causing the flourishing of riparian habitats and the fish and wildlife which depend upon them.

Three of us spent most of a day in the North Fork John Day Wilderness last fall with Russ Morgan, the Oregon Department of Fish and Wildlife biologist charged with wolf recovery. Not only were we fortunate to be with Russ and have him share his knowledge and hear his stories, but also much to our astonishment we found wolf scat and tracks. Alas, Morgan returned to the area with his US Fish and Wildlife Service counterpart (equipped with traps, radio collars, etc.) but was unable to raise even a howl.

According to Morgan, the recovery of the requisite wolf packs in Oregon will be conducted with total transparency. And yes, the first wolves will be collared (if they can catch them). Many of us oppose collaring along with the opening of a hunting season for trophy animals. The latter is objectionable because of the unusual complex social structure of wolf packs.

Many ranchers locally shudder at the thought of these predators. We appreciate the efforts of Morgan and others such as senior US Fish and Wildlife Service biologist, Ed Bangs in their efforts to allay fears. You pick up any current book in the library on wolves and you will read about Ed Bangs. And Bangs has been to John Day, my community.

Although wolves feed on elk, deer, coyotes and beaver, they will occasionally go for cows. The news is not totally dismal however as in Northern Minnesota, where a fairly substantial wolf population has been stable for decades amid cattle and other domestic livestock, the predation rate is 1%. It is speculated by some that wolves can learn to like beef when it is available to them in carcass dumps. This may be a problem that could be dealt with locally by other means of disposal. Many admire wolves because of their symbolic relationship to wild and ecologically intact habitat. We welcome the return of this keystone species and we applaud the people of Oregon for having a collaboratively driven Wolf Management Plan in place.

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The Juniper Group Sierra Club is one of five regional groups of the Oregon Chapter of the Sierra Club. The Sierra Club, originally formed by John Muir in 1892, now contains 65 Chapters nationwide. Its purpose: To restore the quality of the natural environment and to maintain the integrity of ecosystems; to educate the public to the need to understand and support these objectives; and to study, explore a the wildlands.

JUNIPER GROUP CONTACT INFORMATION

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<http://oregon.sierraclub.org/groups/index.asp>

JUNIPER GROUP OUTINGS

For all hikes, wear comfortable broken in boots, and clothing appropriate to weather conditions. Bring plenty of water and your lunch. We meet at a designated location and voluntarily carpool to the trailhead. Our trip officially starts at the trailhead. Call leader Alison Hamway 382-2035 for meeting location and to confirm attendance.

Sat, June 14, Sutton Mountain hike

Meet 9:00 am, hike Sutton Mountain, approx. 6 miles, moderate. Explore this Wilderness Study Area above the painted hills and watch for hedgehog cactus which may be blooming.

Sat, June 28, Lookout Mountain hike

Meet 9:00 am, hike Lookout Mountain in the Ochocos, approx. 7-8 miles, moderate; great wildflower displays and views over Big Summit Prairie. Trail goes by an abandoned mine. If trail is still snow covered we will hike alternate destination.

Sat, July 12, Paulina Peak hike

Meet 9:00 am. Hike up Paulina Peak (destination may change depending on how long the snow lingers). Approx 4 -6 miles moderate, great views from the top.

August

Hike to be scheduled.

Sat, Sept 6, Three Sisters Wilderness hike

Meet 9:00 am. Hike a loop in Three Sisters Wilderness from Devil's Lake to LeConte Crater across Wickiup Plain. Approx 9 miles, more difficult.

Water Fluoridation: Sales Pitch vs. Reality Check

by John D. MacArthur

"A long habit of not thinking a thing wrong, gives it a superficial appearance of being right." - Thomas Paine, 1776

Today many Americans do not think it's wrong to swallow fluoride in their drinking water, although they know not to swallow fluoride toothpaste because of its warning to "contact a Poison Control Center immediately" if, for example, a child ingests more than a pea-sized amount of toothpaste.

One reason for this contradiction is confusion about dosage. According to the U.S. Centers for Disease Control and Prevention (CDC), that pea-sized dab of toothpaste contains approximately one quarter-milligram (0.25 mg) of fluoride, the same amount in only one cup of fluoridated water, which begs the question: How can fluoride be healthy and safe in water, if the same dose is poisonous in toothpaste? But the main reason Americans don't think it's wrong to consume fluoride is because, for decades, men in white coats have said so.

"You can get practically any idea accepted," chuckled Edward Bernays in an interview with Christopher Bryson. "If doctors are in favor, the public is willing to accept it, because a doctor is an authority to most people, regardless of how much he knows, or doesn't know." Considered the "father of public relations," it was Bernays who persuaded Americans in the 1950s to add fluoride to their drinking water.

In his eye-opening book, *The Fluoride Deception*, investigative journalist Christopher Bryson unearths the mystery of how the most damaging environmental pollutant of the cold war era was injected into our drinking water and food chain when powerful industries facing extensive litigation collaborated with officials at the National Institute of Dental Research (NIDR).

Dental Math

Deception is still at the heart of the fluoridation sales pitch. A prime example of what a mathematics professor called "blatant statistical misconduct" is the

Reducing Harms from Invasive Plants in Oregon Wilderness

by Fred Tanis

My wilderness experiences often leave me with feelings of peace and harmony. The spectacular beauty found in these precious public resources seems timeless and protected from outside influences. Wilderness ecosystems in proximity provide corridors for ranging populations of wildlife. In the West individual wild lands from Yellowstone to the Pacific Coast including several in Eastern Oregon link critical habitats and provide sustainability to the entire system. Road building, logging, fire suppression, and grazing in surrounding public lands managed by the U.S. Forest Service and the BLM pose serious harms to long term diversity and structure of wilderness lands. Direct harms are also posed from invasive species and anthropogenic driven components of climate change. With strong public intervention and stewardship further loss of critical diversity and sustainability may be avoided. Without public involvement these wildlands linking the Western ecosystem are likely to diminish and possibly even collapse in just a few decades.

The Juniper Group is now planning volunteer projects to help reduce the impacts from advancing invasive weeds into our precious wilderness lands. Four areas have been identified for possible project in Eastern Oregon. These are the Eagle Cap and Hells Canyon Wilderness in the Wallowa-Whitman National Forest, the North Fork John Day Wilderness in the Umatilla National Forest, Black Canyon in the Ochoco National Forest, and the Three Sisters Wilderness in the Deschutes National Forest. These areas have amongst others been identified as areas with potentially intensive threats from invasive plants. In the combined wilderness area over 500 miles of trails serve both hikers and horseback riders where the lay of the land calls for long-distance trips with many elevation changes.

The diverse habitat in each of these wilderness areas is being invaded by non-native plants. These invasions can be expected to progressively displace native vegetation and if left unchallenged they will increase by 12% each year. The Forest Service and a 2005 Region 6 decision allows Forest District Rangers to use, if needed, dangerous herbicides in an effort to control advancing invasive weeds. While district invasive plant control managers seem open to physical and mechanical methods for control their recent plans call for application of herbicides in the majority of treatments. For example, in the Eagle Cap Wilderness over 880 acres have been identified for treatment. Of these so far only a

flagship claim that drinking fluoridated water reduces children's tooth decay by (at least) 18%. Its source is a 1990 NIDR report based on data that "represented over 43 million children aged 5-17 years" with either "life-long water fluoridation exposure" or none.

That 18% average for all ages refers to an actual difference in tooth decay of only six-tenths (0.6) of one tooth surface out of a total of about 100 tooth surfaces. This means kids in fluoridated communities averaged 97.2 healthy undecayed tooth surfaces while unfluoridated kids averaged 96.6. That 0.6 difference is less than 1% of the total, so this huge government study actually showed water fluoridation

paltry 1.6 acres have been identified for manual treatment.

Our project has three primary goals. First we seek to inform the public on potential harms that threaten our spectacular Oregon wilderness. Second we want to demonstrate to the Forest Service and to the public the effectiveness of volunteers using manual methods for the control of invasive weeds. Third we want to assist volunteer groups through their wilderness stewardship to mitigate long-term harms to diverse native vegetation. The goals and planning steps in this project will bring volunteers together to work effectively on a rewarding activity. My experience in working on a similar program in our National Parks suggests that many participants find this activity rewarding allowing them to give back something in the spirited volunteerism. This project will also necessarily seek volunteers outside of the Sierra Club.

Thus far four steps to planning and implementing these projects have been identified.

First we will work with Forest Service District Rangers and those staff place in charge of an invasive plant program to identify specific areas within the wilderness boundary where volunteer based manual treatment will be most effective. At this writing we have already received a request for help to work in two of the four targeted wilderness areas.

Second, we will seek to develop public outreach by publishing articles in local newspapers, conducting interviews on local radio stations, making presentations to local conservation and hiking/rider groups, and distributing posters and brochures describing this volunteer program.

Third, a series of volunteer weekend events will be organized to collect and remove obnoxious invasive weeds from the wilderness and adjacent forest areas. A few of these events are expected to involve multi-day campaigns, especially in remote sites.

Fourth, we will seek written comments from the Forest Service managers regarding the effectiveness of the volunteer program. We will coordinate with them to establish an ongoing volunteer program and implement changes that will make it more effective.

Volunteers are needed to launch this important project. Please contact Fred Tanis 541-385-3144 tanisfred@hotmail.com to learn more about this Juniper Group project and how you can help.

had an insignificant effect on the oral health of children.

For five-year-olds, the NIDR reckons a mere seven-hundredths (0.07) of a tooth surface equals 70% less decay! Worse, here's a reality check we never hear about: in the most fluoridated region of the U.S., kids in fluoridated communities had more tooth decay than the unfluoridated kids. And this study is the best evidence the CDC cites for the effectiveness of fluoride in drinking water.

When considering the sales pitch for water fluoridation, it's crucial to discover what we are not being told. Therein lies the truth.

(Article continued on the next page)

SUMMER 2008

Resort Trouble for Struggling Whychus Creek

by Merry Ann Moore

New Resort Proposed for Sisters Would Mean Trouble for Struggling Whychus Creek—and a Loophole Big Enough to Drive a Golf Cart Through

Zoning is boring. Ordinances, subsections, administrative rules, blah, blah, blah. But a text amendment to the county code currently being considered by Deschutes County is certain to get the adrenalin pumping for anyone concerned about our watersheds.

A Sisters developer could be the first in the state to attempt to convert an existing housing subdivision to a destination resort. Never mind that the proposal doesn't conform to Deschutes County's comprehensive plan. Or that the Aspen Lakes Golf resort project clearly fails to meet Goals 6 and 8 of state destination resort guidelines.

The developer contends that "the proposed text amendment will have no effect upon the air, water and land resources quality in Deschutes County." But the property for the project comes within .16 miles of Whychus Creek, a federally-designated Wild & Scenic River upstream. The environmental impacts of a large lodge, hundreds of houses and other amenities there promise to be devastating for the creek, since the source of water for the hundreds of new housing and lodging units proposed will be the aquifer which recharges Whychus.

The exact impact of groundwater pumping on multiple cold water springs that feed Whychus within half a mile from the proposed resort is unknown. But extensive groundwater pumping to meet the needs of a destination resort will almost certainly result in both increased water temperatures and lower flow in the creek. And Whychus instream flow is already severely depleted. At its headwaters in July, Whychus runs at an average 179 cubic feet per second (CFS). It runs at only 10-15 CFS at Camp Polk Springs, in close proximity to the resort property line.

Stream temperatures rise from an average of 5-10 degrees C in the winter to

a high of nearly 26 degrees C near the resort site in the summer. The state temperature standard for salmon and trout rearing and migration is 18 °C. Whychus temperatures in the reach which runs parallel to the proposed Aspen Lakes resort "exceed the state temperature standard set to protect salmon and trout rearing and migration."¹ Consequently, this reach already qualifies as a water-quality impaired river under Oregon Department of Environmental Quality Section 303(d).

The outlook for native fish reintroductions in the Deschutes Basin is grim if the resort gets the go-ahead. The best steelhead trout spawning location on the entire length of the Whychus—in Camp Polk Meadow—is located just downstream in close proximity to the Aspen Lakes project. The proposed lodge would be built on property no more than .38 miles from reintroduction spots where more than 200,000 steelhead fry were released in summer 2007. This native fish restoration project is part of a deal negotiated in 2004 between PGE, Confederated Tribes of Warm Springs, and 20 stakeholder organizations to bring back anadromous fish into portions of their historic range upstream from the Pelton-Round Butte Hydroelectric Project. Steelhead trout are listed as threatened on the federal Endangered Species Act.

These struggling new fish populations are unlikely to survive the additional habitat stress which will result from resort development: lower stream flow, higher water temperatures, more traffic and concomitant non-point source pollution washing into the creek from the single, narrow, rural road that provides access to the resort, erosion from construction activity, sedimentation of fish habitat from road widening, and potential for bacterial contamination from several hundred new septic systems upstream.

In addition to the water ramifications, the proposed text amendment would create a precedent other Central Oregon developers would likely want to exploit. Resorts are meant to boost tourism by offering visitor-oriented accommodations

and recreation. County rules state that ALL phases of the building process must comply with destination resort standards. Developers are therefore required to start on bare ground, with strict agreements on overnight accommodations and wildlife mitigation in place before construction begins. Yet, Aspen Lakes Golf subdivision has already sold well over 100 lots, houses have been built, no overnight lodging has been constructed, and other destination resort requirements have not been fulfilled.

Granting the zoning change request would set a legal precedent with unknown land use implications. Because county archives are not all digitized, the actual number of rural subdivisions is unknown. Might developers of other existing housing tracts seek to exploit the precedent which the county would set by allowing the Aspen Lakes subdivision to convert after the fact to a resort? What are the potential impacts on other jurisdictions? In Jefferson County, for example, there are six approved Rural Cluster Developments. And what of future subdivisions? The text amendment language says only pre-1992 subdivisions mapped for resort development can qualify for converting, but could others create new clustered subdivisions and then challenge this arbitrary date?

Both the county planning department and the state Department of Land Conservation & Development have weighed in against allowing the zoning change. However, whether the Planning Commission—chaired by Keith Cyrus, father of the resort developer Matt Cyrus—votes to follow this recommendation remains to be seen. And a no vote on the amendment could be appealed by the developer to the County Commission.

As stated in a recent report on water usage expected at the proposed Thornburgh resort in Tumalo, "there are fourteen other destination resorts that are either under construction or in some stage of planning in Deschutes, Jefferson and Crook Counties. The total acreage of these resorts may range from 20,000 to 25,000. These destination resorts will

rely almost entirely on groundwater. Their impact on water resources will be significant. The impact of each resort and the cumulative impact of all the resorts should be evaluated."²

What you can do

Write or email the Deschutes County Board of Commissioners and urge Mike Daly, Tammy Melton and Dennis Luke to follow the planning staff recommendation and reject the text amendment. Ask them to undertake a study to determine the cumulative economic and environmental effects of destination resorts. Remind the commissioners that Goal 8 of Oregon's Statewide Planning Goals & Guidelines says that destination resorts "should consider as a major determinant, the carrying capacity of the air, land and water resources of the planning area. The land conservation and development actions provided for by such plans should not exceed the carrying capacity of such resources." Finally, ask the county commission to place a moratorium on new resorts until region-wide air, land and water carrying capacity issues are adequately investigated.

Letters:

Deschutes County Board of Commissioners, 1300 NW Wall St., Bend, OR 97701-1960
Email: board@deschutes.org

Merry Ann Moore lives in Sisters and has been a member of Sierra Club since 1986. She served from 2003 to 2005 on the Squaw Creek Stewardship Committee and as an Upper Deschutes Watershed Council stream monitor on Whychus Creek.

(Footnotes)

¹ Whychus Creek Watershed Project Temperature Monitoring Summary 2007 http://www.restorethedeschutes.org/CEDocuments/Downloads_GetFile.aspx?id=250491&fd=0.

² A Case Study: Thornburgh Resort Water Resources Impact Evaluation, Upper Deschutes Basin, Oregon, Feb. 2008 <http://www.centraloregonlandwatch.org/files/Executive%20Summary.pdf>

(Article continued from previous page)

2000 Oral Health Report Card

A typical example of half-truth is the press release put out by OHSU School of Dentistry about the first national Oral Health Report Card. It began, "Oregon has nothing to smile about" and quickly pointed out our state got the worst grade for having one of America's lowest percentages of fluoridated water. Then came quotes from three dentists calling for mandatory statewide fluoridation.

The press release failed to mention that Oregon got one of the higher grades for the percentage of kids without cavities. Only three states scored better, and two of them also got poor grades for fluoridation.

When this national data revealed no correlation between increased water fluoridation and reduced cavities, the report card was taken out of circulation, and the next two didn't even measure kids' cavity rates (the purported rationale for fluoridation in the first place).

During the 2005 Oregon legislative session, editors of *The Bulletin* (Bend's daily newspaper) tried their best to deny the first report card's findings (A meaningful step toward fluoridation, 27 Feb 05). But after being challenged, they printed a correction acknowledging a local nutritionist was accurate: "There just isn't any significant relationship between presence or absence of water fluoridation and cavity rate."

Despite this inconvenient truth, *The Bulletin* editors believe every man, woman, and child should consume the drug fluoride via their drinking water, because "there are times when it's perfectly appropriate for government to insist on real mass medication" (Fluoride bill deserves Legislature's support, 2 Jan 05). This is an oddly anachronistic belief for our era of genetic and individualized medicine, when we know one size does not fit all.

In anticipation of the 2009 legislative session, *The Bulletin* continues its zealous quest to medicate Bend's award-winning water, despite recent nationwide health

concerns about drugs in our water and government cautions about mixing infant formula with fluoridated water (which contains over 100 times more fluoride than breast milk).

2007 Oregon Smile Survey

The Bulletin editors are now trying to use a recent statewide oral health survey to validate their belief that "were fluoridation more widespread in Oregon, the 2007 Oregon Smile Survey might actually contain something to smile about" (Require fluoridation, 20 Nov 07). Citing Oregon's worsening dental health (not mentioning it's worsening nationwide), they question whether Oregon is "really part of a developed, first-world country" and call us a "population of public-health Luddites" because only 19% of us receive fluoride from our taps when nationwide it's more than 66% (Fluoridate already, 25 Apr 08).

In an accompanying news story, *The Bulletin* repeats the myth that lack of fluoridated water is a cause of kids' problems, followed by a half-truth: "Portland is the

largest city in the United States that does not fluoridate its water." But *The Bulletin* failed to mention a key finding in the Smile Survey: Portland kids actually had better dental health than the rest of the state.

In contrast, Oregon Department of Human Services (DHS) did tell us: "Children in the Portland metropolitan area have less untreated tooth decay, are less likely to have ever had a cavity and are less likely to need urgent dental treatment." What DHS opted to not disclose was that Portland's water is unfluoridated.

Conspicuously absent was any evidence of the sales pitch's big promise. No reduction in kids' cavities were reported for fluoridated Salem, Beaverton, or Corvallis. Yet despite this proof of fluoridation's ineffectiveness, DHS continues to make its boilerplate recommendation for more Oregon children to ingest fluoride in their drinking water or in supplements.

(Article continued on the next page)

Gardening Lightens Your Carbon Footprint

By Gretchen Valido

Thrusting my shovel into fallow garden soil is a spring ritual I relish. A few weeks back, images of beets, zucchini, green beans and eggplant sustained my efforts to work several bags of chicken manure into the raised garden bed, but truth be told it was memories of last year's chard that gave me the happiest anticipation. Quick trip out back to the garden to snip-clip, return to the kitchen with crisp leaves in hand, into the steamer the greens go after a quick wash, then heap them on my waiting plate topped with a spot of butter, all in less than 15 minutes. How satisfying is that!

Have you read any Michael Pollan?

The titles are provocative: *The Botany of Desire*; *The Omnivore's Dilemma*; *In Defense of Food*, an Eater's Manifesto—refocusing and expanding an understanding of our relationship to ancient nature and sustenance. In the latter book he brings us back to food's larger context, and makes the point that we relinquish control of our health the farther we stray from preparing and eating real food. Don't eat anything that your great-grandmother wouldn't recognize as food, he says. Pollan's straightforward advice: "Eat food. Not too much. Mostly plants."

Growing your own organic vegetables even in Central and Eastern Oregon can be very rewarding, even inspirational. Backyard gardens present us with personal opportunities for lifestyle balance, economy, nutrition, exercise, observation, community, solitude, education, reflection, and well-being. Bringing children to gardening adds opportunities for teachable moments, self-discipline, activity-centric involvement (as opposed to toy- or electronics-centric activity), delayed gratification (presumably you and I have already learned that) and connection. These are joyous possibilities!

Food-Related Greenhouse Gases

Looking at vegetable gardening from another perspective, not only does it put healthier food on the table and connect you with natural processes, it reduces your carbon footprint fairly dramatically. You're not eating food that's been

grown with chemical fertilizers (derived from natural gas), harvested with fossil-fueled machinery and stored in electrically cooled refrigerators. You're not driving to the market and not buying food that's been transported perhaps hundreds or thousands of miles. "Food miles" comprise about 11% of the average family's food-related greenhouse gas emissions, according to researchers at Carnegie Mellon University. You can't get any more "eat local" than your own backyard.

Recent research findings conclude that you can also lighten your carbon footprint significantly through food choices. According to the journal *Environmental Science and Technology*, replacing red meat and dairy products with chicken, fish or vegetables just one day a week has the same impact on greenhouse gas emissions as switching to an entirely locally-grown diet. Michael Pollan is a strong advocate of a diet based on fresh vegetables and fruits, with limited meat. Founding Father Thomas Jefferson, who had an intense interest in the study of plants, said "I have lived temperately, eating little animal food, and that . . . as a condiment for the vegetables, which constitute my principal diet."

What's Your Score?

The eating habits of Americans generate 5% of the world's greenhouse gases, according to the website eatlowcarbon.org. The website's fun graphic food choice calculator lets you drag and drop various menu items to see what the carbon footprint is of that food. Instead of counting calories, we're counting CO₂e's (carbon dioxide equivalent emissions). The site estimates a person's typical daily food intake score is 4,500 points, where one point is equivalent to one gram of CO₂e.

A 2,000-point meal represents 4.3 pounds of CO₂e, and at 4,500 points daily, the average annual carbon footprint for the food you eat equates to about 3 tons of CO₂ per year, or 3 round-trip 3-hour flights. Here are some examples of typical breakfast CO₂e scores: steelcut oats-144; whole wheat buttermilk pancakes-636; eggs, bacon and toast-844; breakfast cereal

with milk-1224; omelet with meat and cheese-1519. Other meals are vegetable chow mein-313; cheese pizza-516; chicken sandwich-697; cheeseburger and fries-1977.

One reason that meat and dairy have such high scores is that ruminants (cows, sheep, goats) burp and pass methane gas, which is 23 times more potent in the atmosphere than CO₂. Ruminant livestock production produces 18% of the world's greenhouse gases. The energy input required to grow livestock feed, the length of time it takes for these animals to reach maturity and be fed (as compared to plants), the fuel required to transport their relatively heavier weight, and decomposing manure are also factors in their high CO₂e scores.

Happy Composting

Another way to ratchet down the carbon footprint is to compost, which your garden and the planet will love. Though I do bury some kitchen scraps, my project this summer is to start composting. Composting puts nutrients back into the soil instead of landfills, it adds water-retaining organic matter to the soil, and it eliminates or minimizes the need for chemical fertilizers, pesticides and herbicides which contaminate groundwater and destroy the soil. Synthetic fertilizers acidify the soil, kill beneficial microbes and earthworms, and damage soil structure such that it doesn't hold water anymore.

Compost provides the basic nutrients of nitrogen, phosphorus, potassium and many other essential micronutrients that plants need to be healthy, and prevents nutrients from being leached away from plant roots. Composting can also save money because you use less water and minimize fertilizers, pesticides and herbicides. Plus you have a smaller garbage can at the curb, contributing less to landfills which produce methane.

Extraordinary Worms

There are lots of ways to compost, and I've chosen worm bin composting, or vermicomposting. Charles Darwin recognized worms as extraordinary creatures and wrote his last book about decades of worm observations

and the formation of humus produced by earthworms. "I doubt," he said, "whether there are many other animals which have played so important a part in the history of the world, as have these lowly organized creatures." He was fascinated that great stones wind up buried, through the action of worms. Darwin calculated that earthworms produce 7.5-18 tons of castings (digested soil, rock and intestinal secretions) annually per acre!

I'm ready for worm composting with a wooden box, paper strips and peat moss for bedding, plus kitchen scraps of fruits, vegetables, tea bags, coffee grounds, egg shells and garden waste for good measure. Worms, I've read, do better in a cool, damp environment such as a garage or utility room where those Red Wiggler worms will have at it and make some good compost in about 3 months. You can even make compost "tea" from worm castings in a 1-to-5 ratio that's great for all your plants. There's information on making a worm bin at www.metrokc.gov/dnrp/swd/composting/wormbins.asp, and for an absolutely delightful MP3 video clip on Worms at Work, see www.sciencefriday.com/videos/watch/10111.

An indoor automatic composter that processes up to 120 pounds of kitchen waste per month is available for \$300, as well as one that accepts pet waste for \$400, made by NatureMill. See www.naturemill.com/earth.html.

Though food and paper are biodegradable, they top the list of least recycled products, accounting for almost 50% of landfill solid waste. Because food and paper waste is buried and has no access to air, it doesn't decompose. With methane produced from landfills 23 times worse than carbon dioxide as a greenhouse gas, composting is a responsible and important way to help reduce global warming while improving the health of the soil.

Good soil is alive with bacteria, fungi, insects and plant roots, and has a wonderful sweet alive aroma. Why not try your hand at vegetable gardening and composting this summer.

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What Oregon's Smile Survey did reveal was that low-income children and those without dental insurance had poorer oral health and lower access to care. This is the same (and worsening) situation across the nation.

From similar Smile Surveys in 32 other states, the CDC has gathered tooth-decay data for third-grade students. Again, the results show no correlation between water fluoridation and better oral health. The kids in 19%-fluoridated Oregon had the same or less tooth decay than kids in 13 other states, all with 2-5 times greater percentage of fluoridated water, including 100%-fluoridated Kentucky. (Oregon also had less untreated tooth decay than 24 more-fluoridated states.)

Tooth decay is independent of water fluoridation status. It is a disease of poverty, poor oral hygiene, and lack of access to affordable dentists... not a deficiency of swallowed fluoride. (And despite the sales pitch, fluoride is not a nutrient.)

'Side Effects' of Water Fluoridation

Years of ingesting fluoride not only fails to reduce tooth decay, it increases dental fluorosis, the visible indication of chronic excessive fluoride consumption. The overall rate of dental fluorosis among U.S. school children (age 6-19) is 32%, and rising. In fluoridated communities, 66% of America's children have dental fluorosis.

Fluoride works topically, applied via toothpaste. Taken systemically, it doesn't actually strengthen teeth (as first thought). It makes them more brittle. Consequently, decades of consuming fluoride takes its toll, as suggested by CDC's nationwide data for loss of teeth. Seniors in Oregon had less tooth loss than seniors in 33 other states that all had a greater percentage of fluoridated water than Oregon.

As for America's most fluoridated state: "Kentucky has some of the worst oral health in the nation. The state ranks... number one in toothlessness among adults of working age" (*Lexington Herald-Leader*, 28 Jan 08). At the other end of the

spectrum, Utah has the least amount of fluoridation and the least amount of older adults who have lost six or more teeth due to decay or gum disease.

Fractured Fairy Tale

The third most common cause of tooth loss is fractured teeth. Bill Osmunson, DDS, MPH (who practices dentistry in both Oregon and Washington) sees a connection between water fluoridation and tooth fracture. He estimates that when all the costs for treatment of dental fractures are considered, "the true lifetime cost for fractured teeth could represent the single greatest dental expense for adults."

This overlooked side effect of water fluoridation and dental fluorosis is a reason why fluoridated cities do not have lower dental costs (a centerpiece of the fluoridation sales pitch), and refutes the often-parroted myth that every dollar spent on water fluoridation saves \$38 in dental costs.

The American Dental Association aggressively pushes water fluoridation, fully

aware it increases fluorosis. This trade union, however, dismisses dental fluorosis as merely a "cosmetic" effect while its members increasingly promote, practice, and profit from cosmetic dentistry.

Fluoride pushers and apologists are fond of saying (like the tobacco industry) there's no proof fluoridation is harmful, even though fluoridation's association with tooth loss is stronger than it is for tooth decay.

Something else the OHSU dentists forgot to mention in their press release about the 2000 Oral Health Report Card: Oregon also got a high grade for the percentage of people 65 and older who had not lost all their natural teeth. Only Hawaii scored better. And like Oregon, Hawaii also got the worst grade for water fluoridation.

Thus the newest sales pitch is a classic half-truth: For older adults "fluoridated water lowered the number of dental fillings."

"Half the Truth is often a great Lie."
- Benjamin Franklin, 1758