



## 2013-2014 School Nominee Presentation Form

### **PART I - ELIGIBILITY CERTIFICATION**

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#### **School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.



U.S. Department of Education Green Ribbon Schools 2014

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Charter  Title I  Magnet  Private  Independent

Name of Principal Mr. Tom Dodd  
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name Leshar Middle School, an IB World School  
(As it should appear on an award)

School Mailing Address 1400 Stover St  
(If address is P.O. Box, also include street address.)

Fort Collins CO 80524  
City State Zip

County Larimer State School Code Number\* 5068

Telephone 970-472-3810 Fax 970-472-3880

Web site/URL <http://les.psdschools.org/> E-mail [tdodd@psdschools.org](mailto:tdodd@psdschools.org)

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

T. DODD Date 1/23/14  
(Principal's Signature)

Name of Superintendent\* Dr. Sandra Smyser  
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name\* Poudre School District Tel. 970-490-3607

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. This is one of the highest performing green schools in my jurisdiction.

Sandra Smyser Date 1/23/14  
(Superintendent's Signature)

*\*Private Schools: If the information requested is not applicable, write N/A in the space.*



## **PART II – SUMMARY OF ACHIEVEMENTS**

### **Instructions to School Principal**

Provide a concise and coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts in approximately 800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School.

## **PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE**

### **Instructions to Nominating Authority**

The Nominating Authority must document schools' high achievement in each of the three ED-GRS Pillars and nine Elements. For each school nominated, please attach documentation in each Pillar and Element. This may be the Authority's application based on the Framework and sample application or a committee's written evaluation of a school in each Pillar and Element.

### **Nominating Authority's Certifications**

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency **Colorado Department of Education**

Name of Nominating Authority **Mr. Robert Hammond**  
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.



  
(Nominating Authority's Signature)

Date

1-30-14

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to [green.ribbon.schools@ed.gov](mailto:green.ribbon.schools@ed.gov) according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509  
Expiration Date: February 28, 2015

### **Public Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov) and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

# Colorado Green Ribbon Schools

## 2013-2014

### PART IA: SCHOOL CONTACT INFORMATION

**School Name:** Leshler Middle School, an International Baccalaureate World School

**District Name:** Poudre School District

**Street Address:** 1400 Stover St. Fort Collins, CO 80524

**Website:** <http://les.pdschools.org/> **Facebook page:** N/A

**Principal Name:** Tom Dodd

**Principal Email Address:** [tdodd@pdschools.org](mailto:tdodd@pdschools.org) **Phone Number:** 970-472-3810

**Principal Signature\*:** Tom Dodd

**Lead Applicant Name (if different):** Ben Mayer, Science Teacher & Sustainability Club Sponsor

**Lead Applicant Email:** [bmayer@pdschools.org](mailto:bmayer@pdschools.org) **Phone Number:** 970-472-3829

**Lead Applicant Signature\*:** Ben Mayer

*\*By signing this application, Principal and/or Lead Applicant assure that the information provided is accurate to the extent possible.*

### School Demographics

<b>Level</b> <input type="checkbox"/> Early Learning Center <input type="checkbox"/> Elementary (PK - 5 or 6) <input type="checkbox"/> K - 8 <input checked="" type="checkbox"/> Middle (6 - 8 or 9) <input type="checkbox"/> High (9 or 10 - 12)	<b>School Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private/Independent <input type="checkbox"/> Charter <input type="checkbox"/> Magnet	<b>How would you describe your school?</b> <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Rural	<b>Is your school in one of the largest 50 districts in the nation?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <b>Total Enrolled:</b> <div style="text-align: center; border-bottom: 1px solid black; width: 50px; margin: 0 auto;">749</div>
<b>Does your school serve 40% or more students from disadvantaged households?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>% receiving FRPL</b> <u>41%</u> <b>% limited English proficient</b> <u>24%</u> <b>Other measures</b> <u>Mobility 12%, Special Ed. 7%, GT 25%</u>		<b>Graduation rate:</b> <u>N/A</u> <b>Attendance rate:</b> <u>94.13%</u>

## **PART II: APPLICATION NARRATIVE**

### **Summary Narrative**

Lesher Middle School's commitment to sustainability under Poudre School District's (PSD) 5 topic areas of resource conservation, greenhouse gas emissions, sustainable education, transportation, and health and wellness dates back to the fall of 1960 when it opened as a state-of-the-art representation of international school design on its 10-acre site in the University Acres neighborhood; the site of the former Colorado State University farm. Even the initial school colors were influenced by the local environment as the school board and community were so impressed with the brown and gold beauty of the Brown-eyed Susans, a native northern Colorado flower that grew wildly around the farm, they selected brown and gold as Lesher's original official colors. More recently, Lesher completed a \$3.7 million remodel in fall 2006 resulting in a new media center, fitness center, art room, and general education classrooms with energy efficient upgrades (unit ventilators, solar tubes, double pane thermal windows, solar shades, lighting, etc.). Few schools are as well utilized and efficient as 54 year old Lesher (the oldest middle school of the 10 in PSD), an Energy Star Award recipient in 2005, 2008, 2009, 2010, 2011, 2012, and 2013, which maximizes its limited square footage to create a healthy learning and working environment for 750 students and 75 staff members.

As an International Baccalaureate (IB) World School, Lesher's Middle Years Program (MYP) strives to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. While insisting on the thorough study of eight academic subjects, the MYP accentuates their interrelatedness and advances a holistic view of knowledge. As a part of the curriculum, the IB program fosters intercultural awareness, promoting a better understanding of, and respect for other cultures, as well as concern for international issues. The MYP stresses the importance of communication through command of one's own language, foreign language acquisition, and the appreciation of different modes of thinking and expression. Lesher is also a dual language school. Roughly ¼ of our students are in the dual language program, where half of all instruction is taught in Spanish and half in English.

At Lesher, we realize that an education is more than the learning that takes place within the walls of our classrooms. We strive to reduce environmental impact, improve student and staff health, and promote sustainability education throughout the school. More specifically, we replaced seven porcelain drinking fountains with water bottle filling "Hydration Stations" in 2013 to supply drinking water and eliminate single-use plastic bottles, encourage waste reduction through recycling and hot composting resulting in an 66.4% average diversion rate, host an annual Bike-to-School Week where nearly 40% of the students and staff reduce vehicle miles traveled by biking to school and logging approximately 4,000 miles for prizes, guest speakers, and a culminating bicycle celebration, and converted outdoor areas from traditional grass to xeriscaping to reduce water use and increase storm water runoff. Lesher is also host to the City of Fort Collins Nikki Lucas Natural Area.

Lesher recently created a Wellness Team that is active in promoting health and wellness for students and staff. Projects include "Viking Wednesday" after school workouts led by PE teachers, *Fuel up to Play 60*, a staff "Biggest Loser" weight loss challenge, "Iron Viking Suburban Adventure Race" for students, and a 3K Fun Run/Walk on the last day of school. Lesher provides extra-curricular enrichments focusing on sustainable education. IB education recognizes "Environments" as one of its core focuses. Every teacher designs units focused through this lens leading to relevant sustainability education in all classes. We also recently created a Sustainability class where students study basic principles of sustainability and look into real world issues, solutions, and struggles before applying their knowledge to the Lesher and Fort Collins communities. Lesher offers many enrichments throughout the year that focus on environmental education, including a 10 day *Global Explorers* field trip to participate in service learning projects and outdoor adventure, a field trip to Catalina Island, CA to study the ocean ecosystem at the *Catalina Environmental Leadership Camp*, and provide data for the *Colorado River Watch* Program.

Lastly, Lesher is a proud member of PSD, one of two school districts in Colorado recognized in 2012 as Gold Leaders by the Environmental Leadership Program through the Colorado Department of Public Health and Environment at the annual Environmental Leadership Awards ceremony. PSD continues to be recognized as a platinum partner by Climate Wise, a voluntary City of Fort Collins program consisting of over 260 businesses and organizations committed to

climate protection, environmental stewardship, and economic vitality. Since 2006, PSD submits an *Annual Sustainability Report*, which Leshar contributes to, to share the district's accomplishments in sustainability management practices.

### **Green School Program and Awards (Cross-Cutting Questions)**

1. Is your school participating in a local, state or national school program, such as EPA ENERGY STAR Portfolio Manager, EcoSchools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars?

Yes ( ) No Program(s) and level(s) achieved:

**ENERGY STAR Awards in 2005 (80), 2008, 2009, 2010 (78), 2011 (88), 2012, and 2013 (84)\*.**

**\*Our score of 84 out of a possible 100 in 2013 put Leshar in the top 16% of schools nationwide.**

2. Has your school, staff or student body received any awards for facilities, health or environment?

Yes ( ) No Award(s) and year(s):

**2012 MetLife/National Association of Secondary School Principals (NASSP) Breakthrough School Award (1 of 10 schools honored nationwide based on Collaborative Leadership, Personalization, and alignment of Curriculum, Instruction and Assessment)**

### **Pillar I: Reduced Environmental Impact and Costs**

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#### **Element IA: Reduced or Eliminated Greenhouse Gas Emissions**

1. Can your school demonstrate a reduction in Greenhouse Gas emissions?

Yes ( ) No Percentage reduction: **17.6%** Over (m/yy - m/yy): **FY 2005 – FY 2013**

Initial GHG emissions rate (MT eCO<sub>2</sub>/person): **1.06/student (FY 2005)**

Final GHG emissions rate (MT eCO<sub>2</sub>/person): **.65/student (FY 2013)**

Offsets: **N/A** How did you calculate the reduction? **Local emissions factors and data are provided by Platte River Power Authority data. GHG emissions per student in FY 2005 vs. GHG per student in FY 2013.**

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager?  Yes ( ) No

If yes, what is your score? **84** If score is above a 75, have you applied for and received ENERGY STAR certification?

Yes ( ) No Year: **2005, 2008, 2009, 2010, 2011, 2012, & 2013**

3. Has your school reduced its total non-transportation energy use from an initial baseline?  Yes ( ) No

Current energy usage (kBtu/student/year): **6,359.4**

Current energy usage (kBtu/sq. ft./year): **50.6**

Percentage reduction: **22.6%** over (m/yy - mm/yy): **FY 2005 – FY 2013**

How did you document this reduction? **Each year, PSD produces a Sustainability Management System Report (SMS) to document all data trends and goals monitoring energy and resource reduction per PSD Policy ECF - Energy Conservation\_ (<https://www.psdschools.org/sites/psd.psdschools.org/files/PSD/policies//ECF.pdf>). This report is available to the public on PSD's website (see attached energy report). The reduction in non-transportation energy use above show kBtu/student and sq. ft./year in FY 2005 vs. 2013.**

4. What percentage of your school's energy is obtained from:

On-site renewable energy generation: **N/A** Type **N/A**

Purchased renewable energy: **0%- However, we have requested that PSD purchase renewable wind energy for Leshar, and assist us in the installation of a windmill like the one Wellington Middle School installed.**

Type: **Wind (hopefully)**

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: **N/A**

5. In what year was your school originally constructed? **1960**  
What is the total building area of your school? **93,686 sq. ft.**

6. Has your school constructed or renovated building(s) in the past ten years? **(X) Yes ( ) No**  
For new building(s): Percentage building area that meets green building standards: **N/A**  
Certification and year received: **N/A** Total constructed area: **N/A**  
For renovated building(s): Percentage of the building area that meets green building standards: **5%** Certification and year: **Based on PSD Sustainable Design Guidelines per 2005-06 3.7 million renovation**  
Total renovated area: **5,000 sq. ft.**

#### **Element IB: Improved Water Quality, Efficiency, and Conservation**

7. Can you demonstrate a reduction in your school's total water consumption from an initial baseline? **Yes**  
Average Baseline water use (gallons per occupant): **3,218,207 total in FY 2013 (we averaged 3,800,337 gallons from FY 2006 – FY 2012 most of this in grounds irrigation). Total occupants = 824 (749 students & 75 staff). Gallons per occupant = 3,906**  
Current water use (gallons per occupant): **1,644,937 gallons over 3 months of FY 2014**  
Percentage reduction in domestic water use: **PSD's Sustainability Management System Report (SMS) report does not differentiate between domestic and irrigation water use. Water use throughout FY 2013 is lower than it has been since FY 2005 (a 15% reduction over the past 7 year average).**  
Percentage reduction in irrigation water use: **PSD's SMS report does not differentiate between domestic and irrigation water use. Water use during the summer months is at a 3 year low. Summer water use in FY 2013 is down 32% from FY 2012 (it is down 1% from our past 7 year average summer water use).**  
Time period measured (mm/yyyy - mm/yyyy): **FY 2005 – FY 2013**  
How did you document this reduction (i.e., ENERGY STAR Portfolio Manager, utility bills, school district reports)?: **Each year, PSD produces the SMS to document data trends and goals monitoring energy and resource reduction. This report is available to the public on PSD's website (see attached energy report). The reduction in water shows gallons per occupant.**

8. Percentage of your landscaping considered water-efficient and/or regionally appropriate: **100%**  
**Types of plants used and location: Leshner has and will continue to xeriscape outdoor areas near main entrances and other key locations around the school to decrease water usage, storm water runoff, and model for students how to be water wise per our 6<sup>th</sup> grade interdisciplinary unit on water conservation. In the past 3 years, Leshner has completed 4 projects which entailed taking sprinkler zones offline, removing grass and replacing with mulch, trees, moss rock boulders, a stone seat bench, a concrete seat bench, and a student created mural on the wall of a storage shed by partnering with our local "Artist in the Schools Program" to depict our school's history, community, and sustainability (photo attached).**

9. Describe alternate water sources used for irrigation. **N/A**

10. Describe any efforts to reduce storm water runoff and/or reduce impermeable surfaces.  
**Leshner has and will continue to xeriscape high travel outdoor areas to decrease runoff and water usage. Please see the answer to question #8 above.**

11. Our school's drinking water comes from: **(X) Municipal water source ( ) Well on school property ( ) Other:**

12. Describe how the water source is protected from potential contaminants.  
**Leshner's water is supplied by the City of Fort Collins via the Colorado Big Thompson Water Project. Water from the Western slope of Colorado is transported to Soldier Canyon Treatment Plant in Fort Collins, CO. The water is then filtered and treated for municipal use. This year our Parent-Teacher Organization (PTO) split the cost of replacing seven of our 63-year old porcelain water fountains, which were recycled into road base, with seven new Hydration Stations (photo attached). We are also selling BPA-free water bottles to students with**

**the Lesher logo on them for \$8. We considered adding filters to the Hydration Stations, but did not incur that additional cost as the City of Fort Collins does such a good job filtering our drinking water for us.**

13. Describe the program you have in place to control lead in drinking water.

**The City of Fort Collins municipal water source is treated at the Soldier Canyon Treatment Plant to reduce the amount of lead in the water. See our response to question #12 above.**

14. What percentage of the school grounds are devoted to ecologically beneficial uses?

**Approximately 10% of Lesher is devoted for ecological use. Lesher Middle School is host to the Nicki Lucas Natural Area certified by the City of Fort Collins in 1997. The City of Fort Collins Natural Areas Department encourages site management practices that focus on protecting, restoring, and enhancing native animal and plant communities. Lesher's Natural Area is named for a former teacher who passed away. Lesher has and will continue to xeriscape its landscaped and field areas (see questions #8 and #10 above) that are not used for athletics competitions and/or physical education classes.**

**Element IC: Reduced Waste Production**

15. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting? Complete all the calculations below to receive points.

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): **8 yards/week (105 lbs./yd.)**

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): **14 yards/week. (80 lbs./yd.)**

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): **.36 yards/daily = 1.8 yards/week**

Recycling Rate =  $((B + C) \div (A + B + C) \times 100)$ : **66.4% diversion (yearly average)**

Monthly waste generated per person =  $(A/\text{number of students and staff})$ :

**746 students/8 yards/week = .01 yards/week**

16. What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free?

**Lesher uses colored paper that is 30% post-consumer. Lesher is working with the PSD Purchasing Dept. to order white paper that is either 100% Virgin paper or 30% post-consumer fiber with the sustainable forestry initiative.**

17. List the types and amounts of hazardous waste generated at your school:

<b>Flammable liquids</b> <u>None</u>	<b>Corrosive liquids</b> <u>None</u>	<b>Toxics</b> <u>None</u>	<b>Mercury</b>	<b>Other:</b>
			All fluorescent tubes are collected by the PSD environmental coordinator and picked up by Veolia Environmental Services for mercury extraction and recycling of the glass and metal. Veolia uses an advanced, automated, dry-separation process to separate lamp waste into glass, metals and mercury-contaminated phosphor powder. Through Veolia's process, roughly 96% of total bulb weight is recovered as glass; 2% as aluminum; less than 2% as phosphor powder; and less than 1% as mercury for refining. Phosphor powder is retorted or distilled by Veolia to recover hazardous mercury.	Lesher and PSD use Access computer recycle (Division of Waste Management) for all computer/electronic recycling.

How is this measured? **N/A**

How is hazardous waste disposal tracked? **Hazardous waste is documented and tracked using the PSD work order system to facilitate the pickup and disposal of any hazardous waste.**

Describe other measures taken to reduce solid waste and eliminate hazardous waste.

**PSD has a coordinated system to train Chemical Safety Coordinators in each building. Every year our Chemical Safety Coordinator (CSC), Design Technology Teacher Michael Cyphers, inventories classrooms from art to science and trains faculty and staff (including kitchen and custodial) to meet state and district chemical and fire safety policies. Staff document and work to minimize the quantities of chemicals in our building via our booklet of Materials Safety Data Sheets (MSDS). Single stream recycling and hot composting during lunch is a way of life at Lesher as we divert up to 84% of waste from the landfill at any given time (66.4% avg. diversion). In support of this effort we removed 4 trash cans from our picnic table patio and direct all students to go through our compost/recycling/trash line to make sure everyone disposes of items in the most earth friendly manner. Student leaders volunteer during lunchtime to limit contamination of recycling/composting to less than 10%. All students are educated on the benefits of recycling/composting through science classes and our Extended Learning Opportunity (ELO) courses. You won't find a trashcan at Lesher without a single stream recycling container next to it in our building – GUARANTEED! Students help monitor and collect recycling through Mr. Mayer's Sustainability ELO class, and we donate all school lost and found items to *Goodwill* at the end of each quarter. PSD also uses Access computer recycle (Division of Waste Management) for all electronic recycling. Access' certifications are; ISO14001, ISO9001, OSHA18001, R2RIOS, e-steward and is EPA registered. All products are completely cleared of data and either fully refurbished to full functionality or dismantled to end of life materials by our vetted and certified downstream vendors.**

18. Which green cleaning custodial standard is used? **Clean Industrial Management Standard for all custodial cleaning.**  
What percentage of all products is certified? **80%**  
What specific third party certified green cleaning product standard does your school use?  
**Green Seal/Equal logo.**

**Element ID: Use of Alternative Transportation**

19. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses) **Walk (20%), Bike (10%), Bus (50%), Carpool (10%)**

How is this data calculated?

**This data is collected by accessing district data as well as by counting the number of students who participate in these modes of transportation through intermittent checks during various weather conditions. There is some seasonal variability. Lesher also will be encouraging carpooling more next year with it publication of a family directory listed by grade and neighborhood (feeder elementary school).**

20. Has your school implemented?

Designated carpool parking stalls.

A well-publicized no idling policy that applies to all vehicles (including school buses).

Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.

Safe Pedestrian Routes to school or Safe Routes to School

Describe activities in your safe routes program:

**Lesher received a 2009 *Safe Routes* grant to build 2 handicapped accessible bus drop off areas, a 2013 grant for 8 new \$782 bike racks (photo attached), distributed maps to students and parents, and supported an elementary feeder school's (Laurel) "walking bus" walk-to-school program from our school to theirs.**

21. Describe how your school transportation use is efficient and has reduced its environmental impact.

**With a 50% neighborhood and 50% school of choice enrollment we promote walking, bicycling, and carpooling (we're working on a family directory by grade and neighborhood), installed no idling zone signs in our parent pick up/drop off area (photo attached), PSD Transportation Services purchased two propane-powered buses in 2012, trained drivers on use of Webasto auxiliary heaters for pre-start warm up to reduce idling times, and they turn off their busses when parked at Lesher.**

22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships.

**Lesher installed 7 “Hydration Stations” to supply drinking water and eliminated single-use plastic bottles by selling BPA-free reusable water bottles to students/staff for \$8. Lesher hosts Bike-to-School Week every May celebrating Bike-to-School Day through activities and prize giveaways (bicycles, t-shirts, bike lights, helmets, free breakfasts for riders, guest speakers, etc.), and a culminating event called Tour de Skinny. Approximately 40% of our school bikes nearly 4,000 miles during bike week. We installed 11 new bike racks, 1 cycle aid station (repair stand/tools), 1 cycle air station (pump), and a skateboard rack (photo attached). Lesher completed a lighting retrofit replacing all existing T-12 fluorescent lights and magnetic ballasts with T-8 fluorescent lamps and electronic ballasts reducing energy use by about 50% and increasing lamp life substantially in 2010, and all unnecessary lights are turned off 15 minutes after dismissal daily.**

## **Pillar II: Improve the Health and Wellness of Students and Staff**

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### **Element IIA: Integrated School Environmental Health Program**

1. Describe your school’s Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, record-keeping, etc.:

**PSD has an Integrated Pest Management program. PSD also contracts out for pest control when needed to Enviropest which follows IPM protocol. Here is the link to PSD’s IPM program: <https://www.psdschools.org/facility-services/utilities-management/integrated-pest-management>. The PSD grounds crew trims and mows Lesher’s certified natural area weekly to keep vegetation low and minimize the harboring of pests. Pesticides are not used. Common pests in or outside of our school include wasps, mice, and ants. They are addressed by exclusion, baiting, and trapping.**

2. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:

**We do not use pesticides on our campus.**

3. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.

Our school prohibits smoking on campus and in public school buses.

**Every student takes a health class in 7<sup>th</sup> grade that addresses the negative health effects of smoking.**

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.

**All compact fluorescents (CFLs) that contain elemental mercury are collected by the district environmental coordinator and picked up by Veolia Environmental Services for mercury extraction and recycling of the glass and metal.**

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO)

Our school does not have any fuel burning combustion appliances

Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

**There are no wooden structures that contain chromate copper arsenate.**

4. Describe how your school manages and controls student and staff exposure to chemicals (including pesticides) routinely used in the school.

**We have a primary and secondary Chemical Safety Coordinator responsible for the safe management of chemicals used in the normal course of school use. These typical uses include cleaners used by the custodial crew and chemicals used during instruction by science, art, and technology teachers. The Chemical Safety Coordinator is responsible for ensuring chemicals are stored and transported properly, Material Safety Data Sheets are updated, and relevant staff is made aware of important safeguards. Our Chemical Safety Coordinator receives a stipend for this position per the PSD Extra Duty Stipend Schedule.**

5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school.

**Lesher follows ASHRAE 62.1 indoor air quality standards per applicable codes. Air handling unit (AHU) filters are maintained and changed by Building Maintenance HVAC (heating, ventilating, air-conditioning) technicians and the equipment undergoes yearly preventative maintenance. Annual filter replacements are feasible by reducing the run times of the AHU's; with the equipment running on programmed schedules, filters reach the end of their lifecycle at a slower rate. This practice also saves diversion of the filters to the landfill, and the time technicians take to perform the replacement. PSD follows district wide green cleaning procedures. Overgrown juniper bushes planted where our unit ventilators pulled in outside air were removed from the building's exterior. Any time flooring is disrupted and replaced, asbestos removal occurs per industry health standards.**

6. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found.

**We take pride in responding quickly to hazardous or potentially hazardous situations. Our custodial crew, led by Head Custodian Eric Caron, walks the building each morning before students arrive and at the end of the day to identify problem areas. Problems are rare, but when they do occur the custodial team responds, with district facilities dept. support when a work order is needed, to identify the problem, solve it, and clean up residual issues (i.e. facilities repair, roof leaks, etc.). Lesher follows ASHRAE 62.1 indoor air quality standards per on applicable codes.**

7. Our school has installed local exhaust systems for major airborne contaminant sources. ( )Yes (X)No

8. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly.

**During the 2005-06 school year window screens were custom made and installed with double pane, tinted, thermal windows in our 53-year old window frames (we didn't have screens in most windows at the time) and all unit ventilators were replaced, as part of Lesher's 3.7 million renovation funded by the 2000 bond/mill levy. Lesher also has annual preventative HVAC system maintenance as well as annual filter replacements.**

9. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards.

**Every classroom and regularly used room is equipped with a unit ventilation system to ventilate these spaces with outside air in compliance with accepted standards. Lesher has regular preventative HVAC system maintenance, complies with ASHRAE 62.1 indoor air quality standards, monitors the whole building through the building automation system, and replaces AHU filters annually. Lesher has 32 exterior doors and 27 out of 33 teaching stations have exterior windows (with screens) that can be opened for additional ventilation. To cool the building during the first 3 weeks of August when it's hot Lesher purchased 6 large 4 feet tall fans to pull in cool morning air.**

10. Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action.

In addition to the preventative and repair work done by PSD Facilities Department technicians, we participate in annual inspections from the Larimer County Health Department and annual fire inspections through the Poudre Fire Authority. Also, we added solar tubes to all interior classrooms that lack windows to increase day lighting during our 2005-06 renovation. Our building administrative team reviewed the Health Officer and School Nurse Checklist component of the *IAQ Tools for Schools* Action Kit in the past two years as it re-evaluated our building's health/nurse's office procedures, protocols, and service to families. We staff our health/nurse's office with a 7 hour per day Health Technician, and have a full time School Nurse (shared between three buildings) on site every Friday and most Wednesdays. Our building administrative team also reviewed the Food Service Checklist component of the *IAQ Tools for Schools* Action Kit in the past years in preparation for working with PSD Director of Child Nutrition Craig Schneider to improve the efficiency and food quality of our cafeteria.

#### Element IIB: Nutrition and Fitness

11. Which practices does your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships.

Our school participates in the USDA's HeathierUS School Challenge. Level and year:

Our school participates in a Farm to School program to use local, fresh food.

**Our school district gets seasonal fruits and vegetables from local Community Supported Agriculture's (CSA) and farms when possible (i.e. watermelon from Fossil Creek Farms).**

Our school has an on-site food garden.

**Not exactly, but we're thinking about starting a 20 x 20 foot garden. Currently, students in our Sustainability Extended Learning Opportunity (ELO) class make use of the *Shire Farm*, directly across the street from our school, for agriculture education.**

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community.

Our students spent at least 120 minutes per week over the past year in school supervised physical education. **Per the whole child focus of our International Baccalaureate Middle Years Program (IBMYP), all students at Lesher take physical education every year and get at least 60 hours of physical activity across all grade levels annually. In addition, Lesher's competitive athletic teams compete against the other 8 PSD middle schools in these 17 sports: 6<sup>th</sup> grade- boys and girls cross country and boys and girls track and field, and 7<sup>th</sup> and 8<sup>th</sup> grade- boys and girls cross country, boys and girls tennis, coed football, coed wrestling, boys and girls basketball, girls volleyball, boys and girls golf, and boys and girls track and field.**

At least 50% of our students' annual physical education takes place outdoors.

**Weather permitting; the majority of all physical education takes place outdoors on the "frozen tundra" of Viking Athletic Field!**

Health measures are integrated into assessments.

**We believe Lesher offers the model middle school physical education (PE) program. Dept. head Jo Dixon is one of five members of the Colorado Dept. of Education's (CDE) Physical Education Cadre Team providing professional development to K-12 phys. ed. teachers across the state, was the Missouri State Physical Education Teacher of the Year, and was recently honored as Lesher's Rotary Teacher of the Year. Measuring student health and physical fitness levels is a regular part of our lifetime-fitness oriented physical education and health curricula. Come visit a Viking Wednesday class during any week and you'll see what I'm talking about- it's not the gym class you remember and more resembles a circuit training class at a professional health club. Kids at Lesher want to take PE year round, and never complain about dressing out, or working out!**

[ ] At least 50% of our students have participated in the EPA's Sunwise (or equivalent program).

[X] Food purchased by our school is certified as "environmentally preferable"

Percentage: **40%** Type: **Organic fruits and vegetables (per PSD guidelines)**

12. Describe the type of outdoor education, exercise and recreation available.

**Science classes incorporate outdoor education, including visits to local wetlands, streams, weather stations, and micro-ecosystems. Physical education classes use our outdoor fields and facilities to learn new skills and increase fitness through traditional and non-traditional team and individual sports. A running club and rock-climbing club meet regularly after school, Nordic Fest is every fall, Bike Week every May, and we hold a 3K run/walk the last day of every school year. Lesher offers a service learning adventure trip through *Global Explorers* where 20 students spend 10 days living outside in the four corners area of the American southwest doing service learning projects, rafting, and hiking. We also offer a 6-day field trip to an Environmental Leadership Camp on *Catalina Island* that includes service learning, kayaking, snorkeling, and hiking.**

13. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships.

**Lesher's Co-School Wellness Leaders Jo Dixon and Sarah Hammond, and Wellness Champion Cathi Jacobs, lead our staff and parent wellness team promotions. They post healthy tips in bathroom stalls monthly, host "Viking Wednesdays" student and staff themed workouts weekly led by our physical education teachers, and coordinate our National Dairy Council/NFL "Fuel up to Play 60" program promoting healthy kids through an activity log incentive program. Lesher hosts several wellness events throughout the year, including an "Iron Viking Suburban Adventure Race" at Nordic Fest, "Tour de Skinny" Bike Festival, 2 hours of activities the day before winter break, "Lesher Fest" the last day of school with outdoor activities and a 3K neighborhood Fun Run/Walk, a staff "Biggest Loser" weight loss challenge with half the staff participating using pedometers purchased by the wellness team, and an ELO yoga class for students.**

#### **Element IIC: Coordinated School Health, Mental Health, School Climate, and Safety**

14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? (X) Yes ( ) No

If yes, describe the health-related initiatives or approaches used by the school:

**Lesher embeds the 8 Components of Coordinated School Health: 1) Health Education, 2) Physical Education, 3) Health Services, 4) Nutrition Services, 5) Counseling/Psychological/Social Services, 6) Healthy/Safe School Environment, 7) Health Promotion for Staff, and 8) Family/Community Involvement in our day-to-day practices so that not only our students, but our staff experience the Lesher Difference everyday which is what makes Lesher such a great and healthy place to learn and work.**

15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? (X) Yes ( ) No

If yes, describe these partnerships:

**Yes, Lesher has a Professional Development School partnership with the School of Teacher Education and Principal Preparation (STEPP) at Colorado State University (CSU) four blocks away. Our math dept. head teaches an ED 350/386 class on site each semester as an adjunct professor to pre-service teachers who complete practicum hours here, and we host student teachers from CSU and the University of Northern Colorado every semester. Our counseling dept. has also fostered partnerships with local agencies including:**

- **Speak Up-** a discussion group partnership with SAVA (Sexual Assault Victims Advocacy) for girls and boys designed to explore personal identity, relationships, and issues surrounding gender violence.
- **Give Next-** a partnership with the United Way of Larimer County, The Bohemian Foundation, and Otter Cares designed to educate students about the role nonprofits and philanthropy play in the community by providing students with opportunities for service and leadership through philanthropy and volunteering.
- **RAPP (Raising Awareness of Personal Power)-** a school-based suicide education and prevention program facilitated by the Alliance for Prevention of Larimer County.

- **HABIC (Human-Animal Bond in Colorado)- an animal-assisted therapy program out of the College of Health and Human Sciences at CSU.**

16. Does your school have a school nurse and/or a school-based health center?  Yes ( ) No

**We employ a daily 7 hour per day Health Technician, and a full time School Nurse on site every Friday and most Wednesdays (shared between three buildings).**

17. Describe your school's efforts to support student mental health and school climate (e.g., anti-bullying programs, peer counseling, etc.):

**Lesher is 1 of 50 schools statewide accepted to participate in the Anti-defamation League's *No Place for Hate* campaign where student leaders are trained in anti-defamation techniques and become school ambassadors, a Where Everybody Belongs (WEB) program in which 8<sup>th</sup> graders help transition and mentor new 6<sup>th</sup> graders at the start of every year, a Give Next youth philanthropy program through the United Way of Larimer County, The Bohemian Foundation, and Otter Cares, as well as, a PeaceJam club which meets after school weekly to study Nobel Peace Laureates. Students then use techniques learned to create awareness around issues of their choosing at events like our annual Mix It Up At Lunch Day!**

### **Pillar III: Effective Environmental and Sustainability Education**

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**Element IIIA: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems.**

1. Which practices does your school employ to help ensure effective environmental and sustainability education?

Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.

Our school has an environmental or sustainability literacy requirement.

**Each of our three grade levels has created an interdisciplinary unit: 8<sup>th</sup> grade- the Decades Project, 7<sup>th</sup> grade- the Endangered Species Unit, and 6<sup>th</sup> grade- the Water Unit. Each of these units asks students to form research questions and apply research skills, identify controversial issues, and create a final project/piece of writing.**

Environmental and sustainability concepts are integrated throughout the curriculum.

**As an International Baccalaureate (IB) World School advancing a holistic view of learning, fostering international understanding, and open communication are fundamental threads in Lesher's educational fabric. We support these ends by promoting a better understanding of and appreciation for others in our everyday interactions with people emphasizing the 10 IB Learner Profile attributes: 1) Inquirers, 2) Knowledgeable, 3) Thinkers, 4) Communicators, 5) Principled, 6) Open-minded, 7) Caring, 8) Risk-takers, 9) Balanced, and 10) Reflective. We encourage students to be active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. We use the 5 IB Areas of Interaction as lenses to view the content, curricula, and topics. Sustainability and the environment are taught as core subjects in our science curricula, and one of the Areas of Interaction is "Environments." The Environments Area of Interaction, "Aims to develop students' awareness of their interdependence with the environment so that they understand and accept their responsibilities." They deal with the importance of the local and global environment, the concepts of sustainable development, and related social and environmental factors. At least one of every teacher's units every year must use Environments as the "lens" for students to see connections across content areas in a way that builds awareness, responsibility, action, and reflection related to the environment and sustainability.**

Environmental and sustainability concepts are integrated into assessments.

**Lesher historically assesses students annually via the 8<sup>th</sup> grade science Transitional Colorado Assessment Program (TCAP), the Measures of Academic Progress (MAP) science test in all 3 grades, and completes pre and post Fitness Gram assessments on all students measuring upper body strength, abdominal strength,**

cardiovascular endurance, flexibility, and goal setting. Also, the IB Areas of Interaction have been embedded in assessments by teachers, although the IB Middle Years Program is transitioning away from the 5 Areas of Interaction and toward 6 Global Contexts (1. Identities and Relationships, 2. Orientation in Space and Time, 3. Personal and Cultural Expression, 4. Scientific and Technical Innovation, 5. Fairness and Development, and 6. Globalization and Sustainability) for future years. Currently, our students are required to demonstrate understanding of how the “Environments” Area of Interaction interplays with and is affected by the content of a particular course and curriculum.

[X] Students evidence high levels of proficiency in these assessments.

Lesher outperforms the state of Colorado on the 8<sup>th</sup> grade science TCAP assessment annually by approximately 10 percentage points. For example, on the 2013 8<sup>th</sup> grade science TCAP 62% of Lesher students scored proficient or advanced, while only 52% of Colorado 8<sup>th</sup> graders did. As a staff practice, we are more concerned that students learn it *well*, rather than just learn it *fast*. This is why we allow and encourage multiple attempts at mastery on assessments and projects, and emphasize performance on the most recent work. By maintaining high standards and expectations for completed work and authentic assessment, and then ensuring that struggling students are supported and receive scaffolded opportunities to re-test, we ensure high levels of proficiency in these assessments. After all, a rising tide raises all ships!

[X] Professional development in environmental and sustainability education are provided to all teachers.

The expectation is all Lesher faculty and staff understand we don't inherit the earth from our ancestors, we save it for our children. As such, our teachers spend the first few weeks of school teaching the *Lesher Difference* and our *All In!* IB philosophy through our ELO periods, part of which is the idea that we are a sustainable school through our environmental stewardship (recycling and composting), physical education, health, and wellness. We send teacher representatives to the annual PSD Wellness Workshop who return to Lesher and disseminate what they learned to our teachers through our Wellness Team. Two teachers attended the Healthy Schools Leadership Retreat in Winter Park, two staff members attended the Colorado Alliance for Environmental Education's *Teaching OUTSIDE the Box* conference, and both of our PE teachers are also members of the Colorado Association for Health, Physical Education, Recreation and Dance (COAHPERD) and American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), and as such stay on top of nationwide physical fitness trends.

#### Element IIIB: Use of the environment and sustainability to develop STEM content, knowledge and thinking skills

2. For schools serving grades 9-12, provide:

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: N/A Percentage scoring a 3 or higher: \_\_\_\_\_

3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge?

**Our 6<sup>th</sup> grade core teachers (math, science, English, and social studies) teach an interdisciplinary unit about water referencing the 6<sup>th</sup> grade science curriculum theme: How do humans impact the environment? 7<sup>th</sup> grade science studies water by looking at properties of mixtures that help solve water shortages, including desalination, and cleaning polluted waters. The guiding question is, “How are we responsible as stewards of the Earth?” 7<sup>th</sup> grade science does an interdisciplinary unit on endangered species and how humans impact the world around them. 8<sup>th</sup> grade science studies energy sources looking at the sustainability of different energies. As an IB school our technology teachers use the IB Middle Years Program Design Cycle to encourage students to display ingenuity and creativity in devising practical solutions by investigating, designing, planning, creating, and evaluating. Lesher created a Sustainability Extended Learning Opportunity (ELO) class, which studies basic principles of sustainability and looks into real world issues, solutions, and struggles. This class coordinates our recycling, hot composting, and energy conservation program building wide. Lesher's entire 7<sup>th</sup> grade class (250 students) is a member of the *Colorado River Watch* program, collecting and providing water quality data that helps shape legislation in the state. Lesher began a partnership with *Global Explorers* in 2011 where 20 students participate in the Canyon Skies experiential education trip to the desert**

southwest to learn about the flora and fauna of the area, adventure sports, and service learning on the Navajo Indian Reservation. Leshar also offers an adventure travel trip to *Catalina Island, CA* to learn about sustainability principles and how humans fit into different ecosystems.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways?

As a university town, we are fortunate to have the Colorado State University's School of Global Environmental Sustainability just four blocks away. This affords us with the opportunity to partner with not only members of this, and related schools and programs at CSU, but also with the many local business off-shoots which specialize in sustainability and green causes. These have been ongoing relationships. Recent examples include:

- A presentation to 8<sup>th</sup> grade science students from a CSU Ph.D. candidate on the necessity, benefits of, and process of producing lower-cost photo-voltaic cells for solar panels,
- One of our career day panelists was a sustainability coordinator from the Poudre Valley Health System (now known as UC Health),
- A presentation to the entire 7<sup>th</sup> grade class by Denver Channel 7 meteorologist Mike Nelson,
- The *Little Shop of Physics* setting up its annual hands-on physics demonstration lab. for a full day in two of our science classrooms, and
- 6<sup>th</sup> graders walked over to the National Center for Genetic Resources Preservation (NCGRP), known as the Seed Bank, to learn about how this U.S. Dept. of Agriculture facility collects, tests, and houses samples or seeds, tissues, buds, and animal genes.

#### Element IIIC: Development and application of civic knowledge and skills

5. Describe students' civic/community engagement projects integrating environment and sustainability topics.

The Leshar chapter of the National Junior Honor Society (NJHS) made up of 42 students holds an annual clean-up and campus beautification day for our school and neighborhood as one of our many community service projects. PSD provides mulch and other materials, and NJHS sponsors guide students in refurbishing bedding areas around our school to beautify, prevent, and repair areas of natural or man-made erosion. Our *Global Explorers* group (20 students) participates in service learning with the non-profit *Sproutin' Up* ([www.sproutinup.org](http://www.sproutinup.org)), a local organization that grows food for free for farmer's markets in low income neighborhoods, and in a service learning project with the Navajo reservation. A similar group travels to Catalina Island to participate in gardening, composting, and invasive species removal service projects. Civic sustainability is promoted by *Bike Week* each May involving over 50% of the students (approx. 400). Partnering with community agencies and local businesses, students and their parents are encouraged to ride to school each day as *Biking Vikings*, and are treated to a bicycle rodeo, tune-ups, safety demonstrations, bicycle and equipment giveaways, and a culminating breakfast. Bicycle ridership increases fivefold during this week, and it is a favorite student activity. Leshar students also maintain the *Nicki Lucas Memorial Natural Area*, designated as a natural area by the City of Fort Collins Parks and Recreation department, and we are a *River Watch* school (our entire 7<sup>th</sup> grade participates through science classes) collecting and providing water quality data used by state agencies to set water quality standards.

6. Describe students' meaningful outdoor learning experiences at every grade level.

**749 Total Student Enrollment: 6<sup>th</sup> Grade = 249, 7<sup>th</sup> Grade = 271, 8<sup>th</sup> Grade = 229**

**6<sup>th</sup> Grade:** Through a City of Fort Collins partnership, students participate in stream sampling of macro-invertebrates to learn about their life cycles and their use as an indicator of ecosystem health, and participate in the Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS) in partnership with CSU; a national network of volunteers who collect, record, and report precipitation rates for use by researchers. In "Phunky Phenology," another CSU and City of Fort Collins partnership of community/parent volunteers, students track, record, and report the results of the changing seasons. 6<sup>th</sup> grade teachers collaborate via an inter-disciplinary water unit using nearby Spring Creek.

**7<sup>th</sup> Grade:** Classes use Spring Creek a block away as part of their water ecology unit in science. 7<sup>th</sup> and 8<sup>th</sup> grade algebra students use the Pythagorean Theorem to measure the side lengths of trees on our property.

**8<sup>th</sup> Grade:** Students participate in outdoor learning experiences during “weather walks” and talks while studying weather and ecology. Students see, learn, and understand weather, patterns, their effects, and causes using much more than a textbook; they experience it. 8<sup>th</sup> grade science students participate in micro-ecosystem “walking tours,” to see and experience ecosystems in their natural state. During their energy unit, 8<sup>th</sup> graders spend time outside in “energy budget labs,” and take temperature measurements of different surface types (grass, concrete, dirt, asphalt, etc.) to learn how non-natural surfaces change temperatures and affect weather, quality of life, etc.

Lesher provides other meaningful outdoor learning experiences including summer cultural immersion trips to Europe and Cost Rica (to explore the rain forest ecosystem) involving 10-20 students each, the *Global Explorers* desert Southwest trip (20 students), and our Catalina Island field trip (15 students exploring ocean ecosystems) during the year.

7. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills.

The overarching 6<sup>th</sup> grade science curriculum theme is: “How do humans impact the environment?” Other classes study global water problems as a way of examining our responsibility to be good stewards of the earth, and how environments affect the populations of species - sometimes resulting in them becoming endangered or extinct. 6<sup>th</sup> grade teacher Ed Castro teaches an Outdoor Survival ELO class each spring with approx. 30 students participating in a culminating hike up Hewlett Gulch to put their skills to work and see the impact of our recent nearby forest fires first hand. Our outdoor learning activities give us the opportunity to draw connections across subjects, in a real, meaningful, and lasting ways. By being outside during a weather unit in which students observe rainfall, or lack thereof, they’re able to see the real effects on erosion, ecosystems, pollution, and more. Most importantly, students are able to better understand the connection between their behavior, and the welfare of their own community, state, nation, and world. In a way that no book chapter reading could replicate, students are able to understand the connection between their acting locally, while thinking and understanding globally.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships.

Lesher’s proximity to the CSU campus and supportive parents, combined with our progressive, environmentally aware, bike friendly Fort Collins community, and a city utilities department continually looking to partner and educate, encourages us to continuously improve our school’s pursuit of the 3 pillars- Reduced Environmental Impact and Costs, Improved Health and Wellness, and Effective Environmental and Sustainability Education. Our affiliations with CSU include the *Little Shop of Physics* hands-on physics demonstration lab. Every spring, guest speakers from the various schools housed at the university, the Community Collaborative Rain, Hail and Snow Network, the College of Natural Sciences Education & Outreach Center, the Environmental Learning Center, and our athletic coaches regularly plan team trips to CSU Ram athletic contests to build cohesion and camaraderie. The City of Fort Collins provides resources and expertise in outdoor education as well as energy conservation via their Alternative Energy Workshop, and many of our students and staff annually attended the Fort Collins Sustainable Living Fair, which was canceled this year due to the floods (<http://sustainablelivingassociation.org/sustainable-living-fair/>). Most importantly Lesher is part of the PSD, a nationally-recognized leader in sustainable practices as evidenced by the two PSD middle schools recently recognized as Green Ribbon Schools (Wellington Middle and Kinard Middle) and our numerous LEED certified buildings. PSD implemented a Sustainability Management System (SMS) in 2006 extending sustainability principles to all school operations, and Lesher contributes to the district’s Annual Sustainability Report sharing our accomplishments in sustainable management practices.

9. Describe any other ways that your school integrates core environment, sustainability, STEM, green technology and civics into curricula to provide effective environmental and sustainability education, highlighting on innovative or unique practices and partnerships.

Lesher has a 100+ student Science Olympiad team that participates in regional and state competition, a Robotics team that competes in school district events, and the science department supports students in a science fair competition. Each year, the non-profit *Idea Wild* (<http://www.ideawild.org>) presents to 7<sup>th</sup> grade science classes on the importance of conserving biodiversity and how the scientific community can help. Students assess proposals from around the world to find out how we can make an impact from home. Again, Lesher's Sustainability ELO class introduces students to the principles of sustainability and applies those principles to our school and community providing partnerships with the Fort Collins community including the City of Fort Collins' solar workshop, CSU's Center for Public Deliberation to talk about sustainability concepts, the Shire Farm, the Eat Low Carbon campaign, and more. PSD, the City of Fort Collins, and CSU are all recognized for their sustainability and influence the direction of much of the school's learning.

### 10. Photos

Please come visit us and see for yourself how we do the 3 pillars aboard the Viking (Viqueen) ship! Thanks for reading. Sincerely, Lesher's Green Team!



Lesher's beautiful entrance: Low water use plants, moss rock, mulch, single-stream recycling/trash bin, and outside gathering places speak to our focus on sustainability.



Lesher offers a variety of outdoor education, service learning adventure trips focusing on learning about ecosystems, developing 21<sup>st</sup> century life skills, and creating an appreciation of the Earth's natural systems.



One of Lesher's 7 new PTO funded "Hydration Stations" (we sell BPA-free H<sub>2</sub>O bottles too).



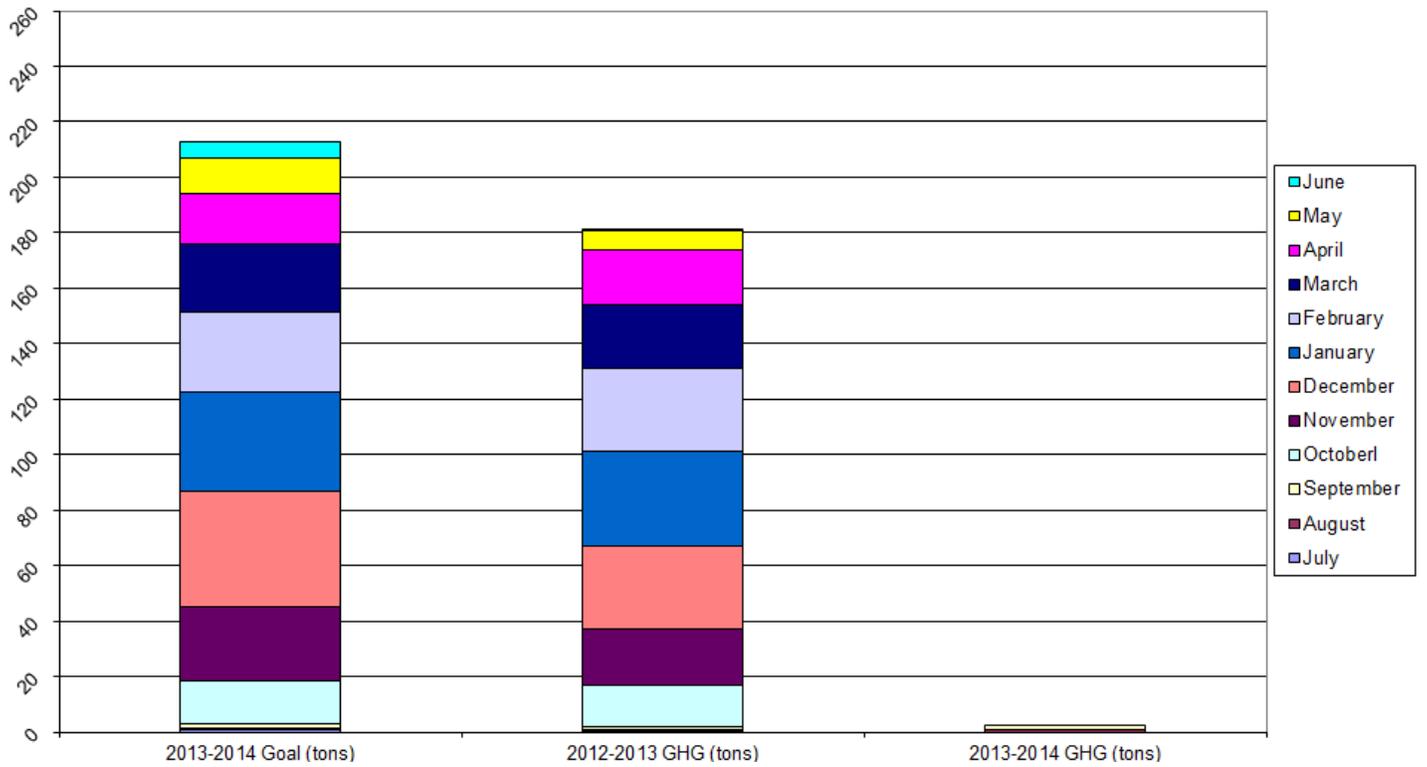
One of Lesher's xeriscaping projects capping sprinklers and reducing water use. These 2 triangle-shaped spaces converted high water use sod turf to native trees, moss rocks, and mulch with a sandstone bench.



Pictured clockwise from top left: Lesher's Bike-to-School Week PTO breakfast for riders, bike challenge course, bike giveaway, and bike corral during our "Tour de Skinny" culminating bike festival. Nearly half of our students and staff bike to school throughout this week.

# Lesher Middle School Sustainability Management System (SMS) Energy Report, 2014

## Lesher Natural Gas Greenhouse Gas Emissions



## Lesher Electric Greenhouse Gas Emissions

