Learning Landscapes: Nurturing a Child’s Relationship to Land and Learning

Rob Wade
Feather River Land Trust and
Plumas Unified School District
Quincy, California

Abstract
Learning Landscapes is a place-based education and stewardship program established in rural, mountainous northeastern California. The Feather River Land Trust initiated this partnership with three school districts, 13 different landowners, and other regional partners to conserve natural areas as outdoor classrooms on campuses and properties within a ten-minute walk of every school in the Upper Feather River Watershed making it easier for teachers to bring K-12 students outside to learn, play and steward the land. Learning Landscapes enhances these sites with signage, trails, and seating areas and supports teachers with training and resources to better teach from the land about the environment.

Keywords: conservation, outdoors, place-based education, environmental education, stewardship
Learning Landscapes
As the 2012-2013 school year concludes, some things at Portola High School in Portola, California are taking off. Under the leadership of science teacher Dave Valle, students worked with a local trail group, Sierra Buttes Trail Stewardship, to successfully lay out and construct a one-kilometer loop trail on the edge of their school campus. Ben Hardsten, construction technology instructor at the school, also guided his students to design, fabricate and construct an outdoor seating area at the trailhead to serve as the Outdoor Classroom for the school. This is their Learning Landscape (Figure 1).

Learning Landscapes is a partnership between the Feather River Land Trust (FRLT) in California, three regional school districts, 13 private and public landowners, and other regional partners. Designed to increase and improve children’s contact with the natural world, Learning Landscapes seeks to enhance outdoor learning on school campuses and to conserve access to natural areas within a ten-minute walk of every school in the region, while supporting teachers to derive maximum usage of these sites.

Figure 1. Chester High School Students gather at their Learning Landscapes Outdoor Classroom site prior to an activity
Background
The idea for Learning Landscapes emerged in 2003 in the Upper Feather River of California’s rural Sierra Nevada (Figure 2). Like many moments of innovation, it happened at the confluence of fate and intention. Paul Hardy, a wildlife biologist born and raised in the region, was the executive director of the FRLT, a newly formed land conservation organization. Rob Wade, an environmental educator who worked for the local Plumas County Office of Education (PCOE), was also one of FRLT’s founding board members. Wade had just completed his Master’s thesis in Education, which identified essential elements of successful place-based education programs. As the PCOE Outdoor Education Coordinator, developing inspiring and effective K-12 programming that would endure the test of time was both his challenge and the objective.

Figure 2. View of Upper Feather River Watershed Learning Landscapes area in California

At a local elementary school staff meeting that year, Wade overheard two teachers discussing the loss of a treasured property that had been used for walking field trips for decades. The property had been sold and developed and now access was forever lost. How many schools had adjacent sites like that? Wade knew of a few and guessed that there were many more. What if something could be done to protect that access for teachers?
Wade brought this to Hardy’s attention, who supported the involvement of FRLT in conserving sites near schools in perpetuity. With approval from the boards of the Plumas Unified School District and the FRLT in 2004, Wade began to survey staff at each school to determine where these places were, or, in some cases, what places teachers perhaps wanted to visit but lacked access. This survey work allowed Wade to map important outdoor sites and to also better understand why teachers do or do not teach outside.

The survey revealed that distance was the primary criterion for selecting an outdoor site that might be used regularly. An off-campus site had to be within a ten-minute walk of the school. Any greater distance from the school and teacher anxiety and discomfort seemed to outstrip their ambition and enthusiasm to access a more distant site, no matter the quality. Maximizing the environment of the school campus itself also became a clear strategy as it was all the more proximate and convenient for outdoor teaching.

While the initial effort was focused on the Plumas Unified School District, two other regional districts, Westwood Unified School District and Sierra Plumas Joint Unified School District, were added in 2006. This inclusion was primarily a reflection of the FRLT being a watershed-based organization serving all communities of the Upper Feather River Watershed (Figure 3).

Figure 3. Upper Feather River Watershed and communities
Program Creation and Implementation
It was here that Learning Landscapes was born. It was a simple idea. Remove buses and budgets from the equation by conserving properties adjacent to every school and support teachers to become the primary providers of outdoor education. However, there were significant challenges. The first challenge was to identify each landowner surrounding the target school, make contact, and determine the most ideal conservation tool that would provide students with access to the land. The next challenge was—and in some cases this was a significant endeavor—to help every teacher see themselves as being qualified and willing to lead outdoor activities.

First, the land access had to be secured. Local private and public landowners were generally enthusiastic supporters of the Learning Landscapes concept from the beginning. Meetings and regular communication between the Learning Landscapes Coordinator, FRLT land conservation staff, and individual landowners helped to establish a relationship of trust that was further formalized by an approved Memorandum of Understanding (MOU) signed by the landowner, the Superintendent of Schools, and the Executive Director of FRLT.

Each MOU includes a certificate of insurance that is issued by the school district’s insurance company, listing the landowner as additionally insured. A set of agreed-upon Property Use Guidelines are written by the Learning Landscapes Coordinator in consultation with the landowner to direct acceptable activities on each property. Teachers and students review these guidelines each year to further foster landowner confidence and trust. Landowner concern and feedback is evaluated each year to better manage the relationship.

There are currently a total of 13 distinct private and public Learning Landscapes sites adjacent to the region’s 12 campuses. Each property has riparian, meadow or forest habitat and has assets and attributes that make it a desirable destination for educators.

The long-term conservation of each site is a goal that is being pursued on a case-by-case basis. Of the 13 Learning Landscapes sites, one has been acquired, a conservation education easement is currently being purchased on another, and five other sites have no threat of development due to protections already in place. The remaining five properties are monitored regularly to guarantee that the schools can access the sites as the program works toward the goal of perpetual access.

Involving Teachers
While land conservation under the direction of the Feather River Land Trust is essential, without the teachers there is no learning on the landscape. This is where the aforementioned survey of teachers proved incredibly important. As Wade had learned, besides needing a place to go, teachers did not take their students outdoors for many other reasons. One reason was that a site might not be viewed as inviting. Some of the qualities identified as essential to use included an easy entry point, clear trails, and a seating area once at the site. Safety considerations—and the fear of hazards and possible injuries—were also of the utmost importance.
Every obstacle that the teachers identified had the quality of limiting belief in the viability of use. After conservation, the key task was to improve the attributes of a site by removing negative obstacles and/or constructing more positive features. This site idealization process was aimed at making it comfortable and even irresistible to teachers.

Beyond the properties themselves, there were other obstacles that deterred teachers from venturing outside. We found that if a teacher did not possess a personal connection with the natural world, they would rarely have a professional connection. At the elementary school level we discovered that there were a few clearly identified teachers on each staff who either had a personal affinity for the outdoors or a strong science background that bridged the possibility into activity. For many teachers, taking students outside was simply out of their comfort zone.

At the high school level the issue was subtly different. The responsibility for field teaching naturally falls to the science department; however, Learning Landscapes can support outdoor learning for teachers of all disciplines. All it takes on any given day is sunshine and students. We playfully refer to this general outdoor opportunity as our Vitamin D curriculum. To help all teachers see the outdoors as an inspiring place to teach required the development of a new culture.

Developed and coordinated by the Learning Landscapes Coordinator in partnership with school district administration, this revised teacher culture has focused on fostering every K-12 teacher’s personal connection with the natural world. One facet of this support is seasonal teacher outings. These teacher outings happen each fall and spring for every school on their Learning Landscape, modeling for teachers similar outings with their own students. The teacher outings are akin to a national parks-style interpretive outing led by a local natural resource professional. Early attempts at optional outings yielded predictable attendance from only the “outdoorsy” teachers. With support from administration, teacher outings are now part of a mandatory seasonal staff meeting so it is contracted and salaried time. This is important as it is intended to include the entire staff after the school day is through, taking a pleasant walk together and learning something new about where they live and work. Positive associations with the outdoors have proven to breed greater personal comfort and enjoyment as well as professional confidence in the possibility of outdoor integration into core instruction.

Learning Landscapes encourages every teacher to simply take a small step forward. If a teacher has never engaged in outdoor teaching, then we encourage a single effort to try it once. Teachers are encouraged to grow at a pace and scale that expresses their true capacity. It is easier to build on a small success than a large failure.

Each summer more extensive workshops are offered to teachers to deepen their knowledge, background, experience and understanding (Figure 4). Workshop subjects have included place-based education in the region, restoration and environmental monitoring, and field journaling. A few essential aspects of all of our
trainings are to pay teachers well for their participation, provide the very best resources, and include significant integration time. All too often, teachers attend informative and even inspiring trainings that do not make a real difference because they are given little to no time to integrate what they have learned into their actual curriculum and instruction.

**Figure 4. Teachers learn how to correctly plant willow during a summer workshop**

Integration time is essential because Learning Landscapes does not provide formal curriculum to teachers as part of the program. FRLT does not want to be seen as dictating the curriculum of public schools and there are already plenty of great curricula available. Learning Landscapes hands-on workshops provide critical experience, knowhow, teaching resources, and critically, essential time for teachers to integrate it all into their already established instructional plans. In many cases Learning Landscapes simply provides a local, field-based way to teach a lesson that is already part of their core curriculum.

Most 7th-12th grade teachers who had an academic background in the sciences were already incorporating field-based instruction, but their tendency was to venture far from the school on more exotic field trips. To find something exceptional in the immediate campus and near environs has required time and encouragement. The aforementioned teacher outings were designed to occur on campus or adjacent Learning Landscapes sites to also help model for teachers what
the nearby possibilities really are. The campus and proximate adjacent Learning Landscapes sites are especially important at the high school level, as 55-minute teaching periods are just too short to allow for anything further away.

Field trip permission forms had also been a deterrent for teachers as they were just one more thing to do and one more reason teachers would choose to just stay in the classroom. Besides the improvement of outdoor spaces directly on the campus, an arrangement was secured to allow teachers to use one set of forms for Learning Landscapes walking field trips at the beginning of each year that could be applied for the entire year. These are traditional field trip forms that every public school has, but rather than a single date being applied to the form, the entire school year was listed. The intention here again is to remove the obstacles teachers experience that deter them from outdoor instruction.

Standards and testing are often the surrender flags that are raised by teachers, cited as the key reason for their lack of outdoor venturing. As already mentioned, Learning Landscapes supports teachers with time and funding to integrate outdoor learning into their standards-based curriculum. If the outdoors is part of the core content it will occupy a place of value and importance and priority, otherwise it will be the first thing to be eliminated.

Quality teaching resources are an important part of Learning Landscapes support. Each Learning Landscapes school receives a core Learning Landscapes kit with binoculars, field guides, and hand lenses (Figure 5). Other resources are provided that tie to specific trainings. For example, following a specific three-day restoration training, regional high schools received gloves and hand tools to support their active stewardship of Learning Landscapes sites. The Learning Landscapes Coordinator makes at least one visit annually to a staff meeting to continually assess success and the needs of teachers. Material needs become part of the fundraising strategy for the coming year.

Learning Landscapes has proven to be attractive to funders both conceptually and practically. Major FRLT donors have provided almost 40 percent of all funds to date. Foundations have provided the majority of program funds (Pacific Forest and Watershed Lands Stewardship Council, and many more) with some state funding support for Land Conservation (e.g., Sierra Nevada Conservancy, California Department of Transportation). Additional funding support has occurred through strategic partnering with Feather River Community College.

At each school a teacher liaison is designated by the school staff to work with the Learning Landscapes Coordinator. This supports better communication on both the giving and receiving ends. Any significant decision regarding a school’s Learning Landscapes site is taken to the staff for input and decision. Without this level of collaboration and teacher buy-in, there simply can be no program.
Involving Students
Student voice and leadership is important in the Learning Landscapes model. At the high school level a volunteer student liaison is recruited each year to provide a direct link to the student body. This student is also a school officer and is enrolled in the Associated Student Body Leadership Class. The liaison works with other student officers at the school to assure that the student body has a voice as it relates to the direction of and decision making around their Learning Landscapes site. The liaison is included in all Learning Landscapes communications and organizes associated events. This model is the goal for all 7-12 schools but its effectiveness varies and is still improving.

Beyond regular educational activities, students plan and implement environmental service-learning projects with their teachers and stewardship partners, tied to their core curriculum. Some of these projects have included the eradication and monitoring of invasive species; water quality monitoring; native plant propagation and restoration; bird nest box and platform construction, installation and monitoring; fuels reduction projects; trail construction and maintenance; and bank stabilization, to name a few (Figures 6-9).
Figure 6. Greenville High School students plant willow whips in a vernal wetland area on their campus

Figure 7. Students work with landowner to restore an old four-wheel drive trail on their learning landscape using native plants
Figure 8. Quincy Junior High Student pulls Yellow Star Thistle along a Learning Landscapes trail

Figure 9. Students from Westwood High School constructing a trail for their campus Outdoor Classroom
Learning Landscapes seeks to maximize student participation at every level. When a property was recently purchased for Learning Landscapes, students from the associated high school’s Advanced Placement Environmental Science class assisted in the writing of the site’s Stewardship Plan with the FRLT Stewardship Coordinator. This can elongate some land management timelines but if student involvement can be integrated, every attempt is made to do so. Real education results from real experiences in the real world.

Senior projects, a graduation requirement at all high schools in the region, are also closely integrated with Learning Landscapes. Since 2008, a total of ten senior projects have been completed related to different facets of Learning Landscapes infrastructure. The construction of outdoor seating and trails, and native plant restoration have been popular projects completed by area seniors. Two seniors from Portola High School focused on the local elementary school campus knowing that their younger siblings would benefit. Students take great pride knowing that they have left behind a legacy for the future.

Additional Partners and Funding Support
Many individuals, agencies, and organizations in the region have offered their skills, resources and time to Learning Landscapes. An important principle for Learning Landscapes is to find the ideal partner for every activity. If a particular support request is core to an organization’s mission, the likelihood of collaboration is increased.

In this spirit, the Plumas Chapter of the Audubon Society provides bird training and field support, Feather River Coordinated Resource Management group supports teachers with meadow and riparian restoration training and projects, United States Forest Service assists with afterschool teacher outings, Feather River Resource Conservation District supports fuel reduction projects, Feather River College has funded significant 7th-12th grade teacher training and provided general field support from faculty and students, Sierra Buttes Trail Stewardship designs and constructs trails with each school, Sierra Pacific Industries provides lumber for bird nesting boxes, and Collins Pine Company provided lumber for the construction of eight outdoor seating areas, just to name a few. These and many other businesses and individuals have been a part of making Learning Landscapes a significant success.

Funding for Learning Landscapes has come through the Feather River Land Trust, which serves as the fiscal agent for the program. Major donors and grants have been the primary source of financial support. A guiding principle of Learning Landscapes has been its programmatic sustainability. The initial land conservation, infrastructure improvements, coordination, teacher training and resources have all had significant start-up costs. Once established and constructed, however, Learning Landscapes will require few inputs. Students take on the responsibility for most of the annual stewardship and maintenance of their Learning Landscapes site. Any material need will be provided by FRLT and ongoing coordination and evaluation will remain a small but steady cost. Teachers provide the educational experiences of the
program, which are built into their core curriculum and do not require significant external inputs.

**Conclusion**

After ten years, Learning Landscapes is still growing up and rooting down. Learning Landscapes provides teachers with the resources they need to make outdoor learning and stewardship a daily reality. Born out of real opportunity and need, Learning Landscapes brings together the work of land conservation, education, and stewardship. This partnership between the Feather River Land Trust, three school districts, 13 public and private landowners, and secondary partnerships with other field-based regional partners is supporting place-based education and activities such as native plant propagation, weed eradication, trail construction, habitat enhancement, and many others. Sometimes the activity is as simple as making Vitamin D in the sunshine. On any given day in the Upper Feather River region you will find a group of students, led by their teacher, doing just that.

Learning Landscapes began with a simple and clear concept, however implementation of the vision had to be reconciled with the complexity of reality. Many lessons have been learned, and adaptation and adjustment is the rule. The concept of conserving every Learning Landscapes site in perpetuity through fee title acquisition has evolved 13 unique conservation strategies that meet the needs of individual landowners. Focusing on each school campus as a first step was added after several years. The original desire to offer monthly teacher outings was adjusted to seasonal outings. Each course correction has been made to serve the greater goal of supporting teachers to take their students outside. The educational, stewardship and health benefits of outdoor education cannot begin to occur until that happens.

Systemic change is a difficult undertaking. Yet, through Learning Landscapes, student access and contact with the outdoors for learning has more than doubled. We expect that to continue to increase. The geographic reach of Learning Landscapes has been the Upper Feather River Watershed. However, recent presentations at the national Land Trust Alliance Rallies in Denver, Salt Lake City, and a fall 2013 seminar in New Orleans have made it clear that Learning Landscapes has national relevance and interest. If you would like to learn more, please visit the FRLT website: [www.frlt.org](http://www.frlt.org).

**Rob Wade** is a place-based educator in the Upper Feather River Watershed. He has a BS from the University of California-Berkeley in Conservation and Resource Studies and an MA from the School of Education at the University of San Francisco. In addition to coordinating the Learning Landscapes program, he also coordinates The Watershed Education Program with the Feather River Coordinated Resource Management Group, the Storrie Fire Restoration Project with the United States Forest Service, and directs the Feather River Outdoor School—a local sixth-grade residential science camp for Plumas County Schools.