

## Work and Play around the Chesapeake Bay: Case Studies in Sustainability

### Speakers:

- **Julie Dieguez** launched The Wild Child, LLC to help organizations & families develop affordable wildlife habitats & nature play areas. Julie is currently developing an online instructional guide for schoolyard habitats, restoration projects & outdoor classrooms.
- **Sandi Olek** is a Senior Policy Advisor for the MD Department of Natural Resources, where she works to connect green initiatives with community planning & redevelopment efforts.
- **Kelly Petrey** is a Senior Associate Engineer for Wetland Studies & Solutions, Inc. where she helps clients solve stormwater management issues & implement restoration practices including Environmental Site Design & natural channel stream restoration

### Nature Play Spaces: Bringing the Wild Back to the Child, Julie Dieguez and Sandi Olek

> HANDOUT: [http://www.chesapeakelandscape.org/wp-content/uploads/2015/12/A1-Handout\\_Dieguez.pdf](http://www.chesapeakelandscape.org/wp-content/uploads/2015/12/A1-Handout_Dieguez.pdf)

### What is a Nature Play Space? Julie Dieguez & Sandi Olek

- Imagination and creativity - endless opportunities to explore
  - Ability to socialize
- Boeing and NASA recently came out with an article stating that recent graduates cannot think “3D”, they have a lack of creativity
- Address this early by enhancing conventional playgrounds:
- Add nature feature (example: bridge from stones)
- Nature Place Spaces include:
- physical components
    - plants and animals
    - bug habitat
    - milkweed patch (brings eggs, caterpillars, butterflies)
    - water features
    - hiding places: flexible bamboo screens, forts with loose parts, fairy houses and gnome homes, messy materials area
  - Activities:

- art (spools from local energy company for tables)
- music
- whimsy
- build large birds nest (use invasive vines)
- make signs for features (example: Bird Habitat Garden)
- tunnel out of drainage pipe
- stumps for pathway (for firewood, or mulch)
- art on tree trunks with paths around it (when kids explore, they are surprised)
- seating: check out Pinterest
- water: paint on stones with water, dog lick in constructed waterways
- mud

- Certified Playground Safety Inspector (CPSI): course

- ADA (mandatory)

- Check safety standards!

- Examples of local nature play spaces:

- Gaithersburg: high-end, million dollars, insect hotels
- Irvine Nature Center:
- Evergreen Heritage Center: everything they did, they did with materials already onsite
- Tree of Life Preschool ad Kol Shalom: in Annapolis
- Home in Laurel: butterfly garden
- Reading corner in backyard
- Pumpkin patch
- Vegetable garden
- Parker's Backyard Play Space: DC, did all herself with ideas found online

---

- Nexus of green space and communities and bringing access to nature

- *MD Partners for Children in Nature*, initiated under Gov. O'Malley: How can we have a stronger voice if we work together?

- Recommendations of committee:
  1. Connecting children to nature during the school day
  2. Connecting families and children to nature
  3. Connecting underserved communities to nature
- *Partnership* program was born out of # 2

- Activities undertaken by *Partnership*:
  - What is nature play space? Space intentionally designed to integrate components into structured or unstructured play and learning (more about unstructured)
  - Pattern Book site: [dnr.maryland.gov/cin/nps](http://dnr.maryland.gov/cin/nps) (includes ideas, activities, maps, and other resources)
  - Elements of a great nature space
  - Nature play space workshops for: school admin, maintenance crews, teachers, designers, etc.
  - Legal team to help come up with safety standards
- This allowed local governments to do similar work because a door was opened by MD DNR
- Examples at state parks:
  - Labyrinth with rocks, tunnel with invasive species, made games out of stumps and used mulch for game pieces
  - Rocks State Park, Patapsco
  - Preschool (Brow Memorial Weekday School) used pattern book to make their own
  - Can have nature play in highly urbanized areas too (example: Baltimore Harbor)
  - Sound/instruments: recycled propane tank can become a steel drum
    - When designing gardens think about sound (wind through grasses in winter, etc.)

***Finding “Sustainability” by Applying LID and LEED Practices at Our Office***, Kelly Petrey

> PRESENTATION: [http://www.chesapeakelandscape.org/wp-content/uploads/2015/12/A1-Presentation\\_Petrey.pdf](http://www.chesapeakelandscape.org/wp-content/uploads/2015/12/A1-Presentation_Petrey.pdf)

> CONTACT INFO: [kpetrey@wetlandstudies.com](mailto:kpetrey@wetlandstudies.com), [www.wetlandstudies.com](http://www.wetlandstudies.com)

- Wetland Studies recently acquired by Davey Tree Company and has offices in Roanoke, VA, Millersville, MD, and headquarters in Gainesville, VA

- Gainesville office: First building certified LEED Gold in Virginia because of all LID features

- LID: suite of small-scale stormwater management designed to mimic hydrologic functions of a forest

- Take home: so many different avenues for water to get to stream, while slowing and capturing

- 10 year old building - stormwater management not required when built

- With 5-10% increased impervious surface in watershed impairs stream
- Regulations didn't require anything because of stormwater management facility downstream, but decided to do it anyway because:
  - believe it's the right thing to do
  - to understand the real cost
  - to study LID performance
  - try an integrated LID plan
- LID features include:
  - Education components: self-guided tours, signage, seminar space
  - Green roof: one of most expensive features, so didn't do the entire space
    - accessible to staff
    - includes a picnic area
  - 4000 gal. toilet cistern (designed to empty 4 times per year, but hasn't needed to drain yet)
  - 8000 gal irrigation cistern (no irrigation requirements), when full, goes into rain garden
  - Rain garden: 1536 square feet
  - Pervious parking: not 100% pervious, but includes all parking areas
    - mix of porous asphalt, pervious concrete, gravel paving, gravelpave2, concrete pavers, and asphalt
    - gravel detention underground: retains all water on-site with slow release at one point
  - Water quality swale: treats runoff from remaining surfaces
  - Living Wall: 2 sides of building
  - Naturalistic Landscaping
  - Modeled site performance: features added almost reduced total phosphorous on developed site as much as a forested site
- Downside: Expensive!
- Staff amenities include: greenroof, hiking trails, kennel, fruit and vegetable garden, natural landscape
- Solar electricity: makes up VA's largest solar photovoltaic system!
- LEED designated features include: decrease in lighting, building materials, low flow sinks, etc.