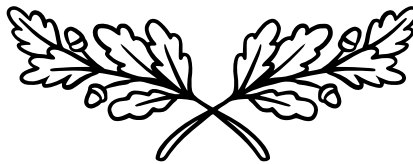


Could The Crossings Benefit from a Miyawaki Mini-Forest?

- Address tricky landscaping areas naturally while beautifying CHOA
- Address the upcoming “Turf reduction requirements”
- Save water in the long term
- Boost property values
- Create shade and cooling for our community
- Bring back native birds and pollinators by increasing native habitats
- Incorporate defensible space requirements & wildfire safety



Proposal prepared for the Walnut Country HOA Board – September 2025

Naomi Redding

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Walnut Country: Where community and nature grow together.

What is a Miyawaki mini-forest?

- A Miyawaki forest is a densely planted mini-forest using many native species (varying in layers: canopy, understory, shrub, groundcover) designed to mimic a mature “climax” forest.
- Requires good soil preparation, initial maintenance (watering, weeding), protection, etc., especially for the first 2-3 years. After that, largely left alone.
- Benefits: improved air quality, high biodiversity, faster growth, better carbon sequestration, ecosystem services (shade, cooling, soil stability), habitat, etc.

“Urban tree-planting has become an important tool in global efforts to cool heavily built areas while also sequestering carbon. A special kind of pocket forest, the Miyawaki forest, does that and more: promoting native plant species and biodiversity in very dense spaces, and becoming, by design, self-sufficient within two to three years.” - *Trees that connect: Recording the birth of a Miyawaki forest, The Christian Science Monitor, Sept. 22, 2023*



Miyawaki forest featured in the NYT:

- “It’s one thing to say that these densely planted forests are going to be great at absorbing storm water, at sequestering carbon or providing biodiversity,” she said. “But it’s another thing to put the data behind it.”
- Within five years, “you’ll get the same oxygen production and carbon sequestration that a forest that’s 50 years or older is producing,”
- ”for each dollar invested, the public will gain on average \$10.90”
- “It smells better, it just makes me feel better...”

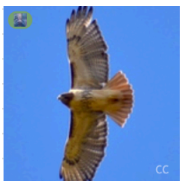
<div data-bbox="81 1487 327 1532" data-label="Section-Header"><h3>Read a book:</h3></div> <div data-bbox="140 1572 268 1762" data-label="Image"></div>	<p>In the book <i>Mini-Forest Revolution</i>, Hannah Lewis presents the Miyawaki Method, a unique approach to reforestation devised by Japanese botanist Akira Miyawaki. She explains how tiny forests as small as six parking spaces grow quickly and are much more biodiverse than those planted by conventional methods. She explores the science behind why Miyawaki-style mini-forests work and the myriad environmental benefits, including: cooling urban heat islands, establishing wildlife corridors, building soil health, sequestering carbon, creating pollinator habitats, and more. ****I have this book and will be happy to lend you my copy!****</p>
<div data-bbox="81 1845 327 1890" data-label="Section-Header"><h3>YouTube playlist:</h3></div> <div data-bbox="118 1926 290 2101" data-label="Image"></div>	<ul style="list-style-type: none">● This urban forest becomes self-sufficient in three years● Mini-Forest Revolution with author Hannah Lewis● Plant hope and healing one pocket forest at a time Maya Dutta TEDxBoston● The Mini-Forest Revolution : Rapidly Rewild The World Using The Miyawaki Method● Rewilding Our Planet Using the Miyawaki Method: Hannah Lewis & Maya Dutta● Transformation in Worcester, Mass.● Miyawaki Forest: Maya Dutta & Paula Phipps

Do we want to...

- **Make progress on the Turf Reduction Requirements, CA AB 1572?**

California Assembly Bill AB 1572, enacted in October 2023, introduces a phased ban on the use of potable (drinking) water for irrigating non-functional turf (“grass areas that are purely decorative and not used for recreation or community purposes”)—on HOA common areas and in other institutional settings by 2029. This project not only aligns with the law—it may also qualify for the **CCWD rebate up to \$20,000!**

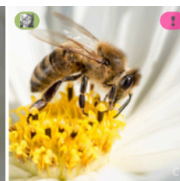
- **Turn underused or “problem area” HOA land into a vibrant asset (such as the South Slope by Ygnacio Valley Road, or parts of the lawn on the greenbelt)** Even a small patch—about the size of a tennis court—can become a thriving ecosystem by mitigating the impacts of climate change through the “dense and intense” planting of native trees and shrubs. The “Miyawaki” mini-forest method is particularly well suited for slopes and valleys.
- **Strengthen our sense of community?** Empower neighbors to positively influence their environment and strengthen the sense of community within Walnut Country and Concord. Educate neighbors, community members and local students about biodiversity and natural systems by taking action; partner with Friends of Concord Creeks.
- **Do something tangible to improve air quality & climate resilience and make it cooler?** Dense plantings capture carbon, filter particulates, and help buffer against heat waves. Thick, layered vegetation lowers surrounding temperatures and provides shade.
- **Save water in the long term?** Dense native plantings establish deep roots quickly, needing minimal irrigation after 2–3 years. Miyawaki forests improve stormwater absorption on site, too!
- **Reduce maintenance costs?** Once mature (think 2–3 years), these self-sustaining forests need far less upkeep than water-thirsty lawns or ornamental landscapes.
- **Boost property values?** Attractive mini-forests and green spaces make neighborhoods more desirable.
- **Increase privacy & reduce noise from Ygnacio Valley Road?** Native forest layers act as natural sound barriers and visual screens.
- **Support local wildlife & pollinators?** Native plants attract a host of birds, butterflies, and beneficial insects:



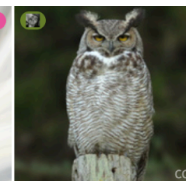
Red-tailed Hawk
(*Buteo jamaicensis*)



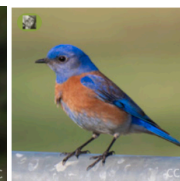
Acorn Woodpecker
(*Melanerpes formicivorus*)



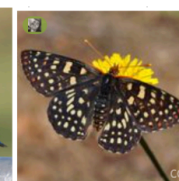
Western Honey Bee
(*Apis mellifera*)



Great Horned Owl
(*Bubo virginianus*)



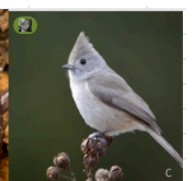
Western Bluebird
(*Sialia mexicana*)



Variable Checkerspot
(*Euphydryas chalcedona*)



Arboreal Salamander
(*Aneides lugubris*)



Oak Titmouse
(*Baeolophus inornatus*)

Let's see some photos!

3,000+ Miyawaki forests have been planted all over the globe in over 40 countries since the 1970s.

Before/after photos from Miyawaki forests at Berkeley Technology Academy in Berkeley:



Before/after photos from Miyawaki forests at Malcolm X Middle School in Berkeley:



Before/after photos from Miyawaki forests in Beirut, Lebanon from theOtherDada:



“How-To” & steps:

Summary for Landscapers and others involved in the project:

“We’re transitioning a designated area into a dense, native mini-forest using the Miyawaki method. It requires planting native saplings very close together in multiple layers, intensive early watering, regular weeding, and no mowing or trimming. The goal is a low-maintenance, self-sustaining ecosystem in 3-5 years protecting native biodiversity.”

1. Soil preparation

- Preparing the soil is essential for success. This involves loosening up the topsoil and adding significant compost to replicate the rich soil that would have naturally built up over many years of forest succession.

2. Planting Density & Pattern

- Miyawaki forests are very dense: 3-5 saplings per square meter (about 1 foot apart).
- Use a layered planting approach: native canopy trees, sub-canopy trees, shrubs, and groundcovers mixed randomly and tightly.
- Avoid traditional row planting or spacing out plants widely.

3. Native Plant Selection

- Use only locally native “climax” species adapted to our microclimate. These are often large trees & shrubs that dominate the final, stable stage of ecological succession.
- Transplant small saplings onsite - for example there are ~35 small saplings (4-6") under the Heritage Valley Oak tree near Adelia may be transplanted as of 8/9/25.

4. Watering Regimen

- Watering for the first 1–2 years is key (usually weekly/biweekly, depending on rainfall).
- Then, watering should be minimal or eliminated as the forest becomes self-sustaining.

5. Weeding & Mulching

- Keep the forest weed-free, especially in the first 2-3 years to reduce competition.
- Use organic mulch (wood chips/shredded bark) to retain moisture & suppress weeds.
- Avoid chemical herbicides or synthetic mulches.

6. Avoid Lawn or Traditional Garden Practices

- No mowing, pruning, or trimming in the planting area—it’s not a manicured garden.
- Minimal disturbance helps the ecosystem develop naturally.

7. Pest Management

- Encourage natural pest control: ladybugs, lacewings, and birds are allies.
- Avoid pesticides and fungicides unless absolutely necessary; keep invasive species out of the area.

8. Monitoring & Adaptive Care

- Observe plant health regularly; replace any dead saplings quickly to maintain density.
- Gradually reduce interventions as the forest establishes.

9. Safety & Accessibility

- Ensure clear paths or designated access points around the forest for maintenance and residents. Consider benches and signs to welcome & educate neighbors.

Potential sites:

Pick one small area to try first. Prioritize “trouble spots” or “non-functional turf” which CHOA will be required to eliminate by 2029. Work with the board, consultants and landscapers to identify target areas. Ensure appropriate spacing from buildings and homes for wildfire safety. On the South Slope, the street provides a natural fire break; in other common areas we would plan on an appropriate distance (potentially 30' to 100' from homes).

Slope by Ayers Rd.



South Slope by Adelia



Greenbelt - Non-Functional Turf areas



S. Slope by Oakbrook S. Slope by Buckthorn



S. Slope by Deerberry S. Slope by Juneberry



Cost and budgeting:

This estimate is based on a tennis-court sized forest. The initial investment is recouped over time in decreased water use and maintenance. Some of these costs may be offset with volunteers, community involvement, homeowner and community donations, grants and potential community partners. The “Friends of Concord Creeks” has been looking for a site for a while and may offer some assistance.

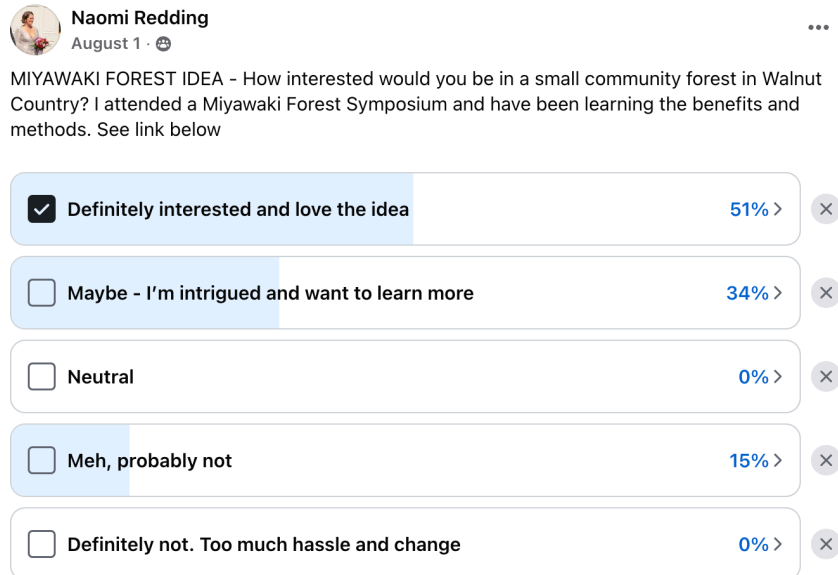
Item	Description	Estimate	Notes
Site Preparation	Clearing, soil testing, light grading	\$500 – \$1,500	Depends on existing vegetation and soil condition
Soil Improvement	Compost, mulch, soil amendments	\$500 – \$1,000	Organic compost & mulch to improve fertility & moisture retention
Native Saplings	3-5 plants per sq meter = ~800-1,300 saplings	\$5,600 – \$19,500	At \$7-\$15 per sapling (size varies); bulk discounts possible
Planting Labor	Professional planting crew, 2-3 days	\$1,500 – \$3,000	Rates depend on local labor costs
Irrigation Setup	Temporary drip irrigation system or hand watering logistics	\$1,000 – \$2,000	Essential for 1-2 years of establishment watering
Initial Watering & Maintenance	Water, weeding, monitoring for 1-2 years	\$1,000 – \$2,000	Can include landscaper or volunteer coordination costs
Mulching	Organic mulch application and replenishment	\$300 – \$600	Mulch needs refreshing, especially in dry months
Design & Planning	Expert consultation and forest design	\$1,000 – \$2,000	Optional but recommended for best species mix and layout
Permits & HOA Administrative Costs	Local permits, HOA approvals	\$0 – \$500	Varies by city and HOA policies
Signage	Education & engagement	\$400 - \$800	Great for engaging visitors and linking to plant/bird databases
TOTAL ESTIMATE for a TENNIS-COURT SIZED FOREST		\$12k - \$33K	

Potential assistance & grants:

Potential Financial Assistance	Details
Contra Costa Water District - Lawn to Garden rebate	Commercial and Multi-Family Lawn to Garden Rebate \$1 per square foot of lawn replaced, up to a maximum of \$20,000 per site for commercial, multi-family, and municipal customers. Available to HOAs, commercial, and multi-family properties within CCWD's service area. This program encourages the replacement of turf with water-wise landscaping, aligning with sustainable practices and reducing water consumption.
Contra Costa Water District - Irrigation upgrade rebate	Rebates for upgrading selected irrigation equipment and installing water-efficient devices. Commercial, multi-family, and HOA customers can be reimbursed a portion of the cost to upgrade selected irrigation equipment.
California Native Plant Society (CNPS)	Offers Redbud Chapter grants (up to \$1,500) for native plant projects—available to nonprofits, schools, and community groups. chapters.cnps.org
Davey Tree Expert / TREE Fund Community Arboriculture Grants	Provides roughly \$5,000 for projects that support urban tree-planting educational components. Great fit for community-engaged Miyawaki plots. APGA
America the Beautiful Challenge	National Fish and Wildlife Foundation program supporting large-scale habitat and ecosystem restoration projects, often across public and private lands. invasivespeciesinfo.gov
Contra Costa County Green Infrastructure Plan	The county is developing a Green Infrastructure (GI) Plan to identify locations for GI installations aimed at improving stormwater quality.
Urban Greening Grants	The California Urban Greening Program funds projects that reduce greenhouse gases and transform built environments into sustainable, enjoyable spaces.

What do the neighbors say?

In a recent poll on Facebook, 85% were either definitely interested or wanted to learn more. There were 32 votes:



Comments:

Christine Boschen Ghodrati - Yes!!! I support this idea, thank you, Naomi. Did you know that Friends of Concord Creeks are hoping to plant a Miyawaki forest? [Yes, I have been in contact with Emily from Friends of Concord Creeks]

Dan Galvez - Maybe we can plant on the hills that the motocross bikers like to jump so they maybe go somewhere else.

Suman Prasad - Can be interesting if it does not increase our monthly water consumption for the community

Daniel Leininger - I'd love to see something like this at Newhall Park as well

Sue Guest - I think we should focus on what we already have, and continue to plant indigenous plants over time getting rid of plants that are not.

Lynne Inman-Hoffert - Interesting. I wonder if the preschool and local Scout groups would be interested in helping pull weeds for those first few years if they could be engaged with the professionals in planting something like this in part of the dog park.

Katja Ramsey - I like the idea.

Liz Young - I read this as well & love the idea too.

Bottom Line:

There is growing community support for this idea. Neighbors have expressed interest directly to me and offered to leverage their networks of connections with nurseries, etc.

Potential sources & nurseries:

Nursery Name	Location	Highlights	Phone	Website
The Watershed Nursery	601 A Canal Blvd, Richmond, CA 94804	Hundreds of native species, affordable small/young plants watershednursery.com Reddit	(510) 234-2222	watershednursery.com Calscape
Down by the Bay Nursery	2363 Catalpa Way, Hayward, CA 94545	"I have experience with Miyawaki forests, and am excited to be part of yours." Down by the Bay is a Nursery specializing in plants local to Hayward and the surrounding cities. We offer ecotypes of many species and are happy...	847-345-9959	https://downbythebay.my.canva.site/#page-1
Native Here Nursery	Tilden Regional Park, 101 Golf Course Dr, Berkeley, CA 94708	Fall Plant Sale October 4 -- 20,000+ plants local to Alameda & Contra Costa; curbside pickup, Sat open East Bay Parks Native Here Nursery	(510) 549-0211	East Bay Parks Native Here Nursery
East Bay Wilds	2777 Foothill Blvd, Oakland, CA 94601	Open Fridays; demo garden; manzanitas, silktassels & more eastbaywilds.com CNPS Santa Clara Valley	(510) 409-5858	SF Planning GISEastbaywilds.com Calscape
Bay Natives	10 Cargo Way, San Francisco, CA 94124	Wholesale + retail; rare & endemic Bay Area natives CNPS Santa Clara Valley San Mateo Public Library	(415) 287-6755	Ecology Center Calland Conservation Network
Oaktown Native Plant Nursery	702 Channing Way Berkeley	Retail & wholesale; restoration contract growing; diverse native saplings Oaktown Native Plant Nursery CNPS Santa Clara Valley	(510) 387-9744	Ecology Center Oaktown Native Plant Nursery
California Flora Nursery (Cal Flora)	2990 Somers St, Fulton, CA 95439	One of Bay Area's oldest; habitat gardening focus, rare natives California Flora Nursery Architectural Digest	(707) 528-8813	Calscape +1
Grassroots Ecology Nursery	3921 E. Bayshore Rd Palo Alto, CA 94303	Native species from local seed/cuttings; order online Grassroots Ecology	(650) 419-9880	Grassroots Ecology +1
California Native Landscapes	254 Shoreline Hwy, Mill Valley, CA 94941	Organic, habitat restoration focus; native and pollinator-friendly CNPS Santa Clara Valley	(415) 888-8471	CALIFORNIA NATIVE LANDSCAPES
Berkeley Horticultural Nursery	1310 McGee Ave, Berkeley, CA 94703	Small retail nursery with a section devoted to natives https://berkeleyhort.com	(510) 526-4704	CNPS Santa Clara Valley
WCA - West Coast Arborists	3625 E. Stevenson Ave. Stockton, CA 95205	WCA is a tree care/urban forestry company. Their services include contract grows, tree planting, removal, pruning, plant health care, emergency response.	(209) 547-0297	https://www.westcoastarborists.com/
Curious Flora Nursery (formerly Annie's Annuals)	740 Market Ave, Richmond, CA 94801	Not a native-only nursery, and no longer do mail-order, but do have a large native section https://www.curiousflora.com	(341) 215-8734	https://www.curiousflora.com
Walnut Creek Open Space Foundation Native Plant Nursery	111 North Wiget Lane, Walnut Creek, CA 94598	Walnut Creek Open Space Foundation: They conduct habitat restoration in the Walnut Creek Open Space and have a native plant nursery for their restoration projects.		https://www.wcosf.org/projects/nursery.html

Native “climax” plants are key:

Likely native species may include: Valley oak, Oregon oak, bay laurel, California coast live oak, blue oak, northern California black walnut, buckeye, arroyo willow, elderberry, mugwort, coyote brush, ocean spray, narrow leaf milkweed, bush monkey flower, black sage, among many other annuals like poppies. *NOTE: this list is from the John Muir Land Trust for a Miyawaki Forest planned for the Fernandez Ranch in Martinez.*

We would want to confirm the best local natives for our area to mimic what would naturally be growing here 500 years ago or 500 years from now with no human intervention.

