SWA Climate Action Plan

Version One, 2024

swa

Golden Gate National Recreation Area | San Francisco, CA

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Hunters Point South Waterfront Park | *New York City, NY*

Message from the Co-CEOs

For over six decades, SWA has shaped the way that landscape architecture, planning, and urban design are practiced in the world. Born from a time of cultural transformation, our firm was an early advocate for ambitious environmental projects beyond traditional scope. In the 1970s, SWA played a key role in the conservation movement on the West Coast, expanding this approach throughout the U.S. in the '80s and into global markets in the '90s. Today, we are one of the largest and most influential firms in our category, proudly 100% employee-owned—and with that position comes a responsibility to lead the industry forward with our choices, both as a practice and a collective of individuals.

As SWA has evolved, the world has changed around us. In 2024, the climate crisis has transformed our cities and landscapes. Our oceans are warming, acidifying, and expanding, contributing to sea-level rise and intensifying storms. In California and Texas, SWA's two key domestic states, extreme heat and drought have drastically impacted health, quality of life, and agricultural production. Plant and animal biodiversity are plummeting. Scientific consensus tells us that in the next century, these trends will only escalate—and according to the Intergovernmental Panel on Climate Change (IPCC), "rapid, far-reaching, and unprecedented changes in all aspects of society" are required to curtail the worst impacts of global warming to our most vulnerable communities.

It's time for SWA—and our industry writ large—to meet this challenge. While many peers in architecture and engineering have developed ambitious Climate Action Plans, landscape architecture has lagged behind, even with ASLA's 2022 framework for action. **This plan, the first developed by a landscape architecture firm, aligns with the goals laid out by ASLA and IPCC, targeting a 50% reduction in project emissions by 2030.**

With a portfolio that has long been recognized for its leading-edge approach to resilience (including Houston's Buffalo Bayou Park, New York's Hunter's Point South Park, and more), SWA has already demonstrated our capacity to advance bold, industry-leading design. It's time to apply this legacy of innovation to our own business, decarbonizing our design processes, advancing carbon sequestration through the landscape, and fully integrating new tools and technologies for carbon assessment into our practice.

As a leadership team, we believe this is among the most important work of the next century—and it requires a collective, all-hands-on-deck approach. The strategies outlined in this plan reach throughout SWA, looking at the design process, office energy use, training and mentorship, business development and marketing, and much more. We see these actions not only as essential to a livable planet, but also as essential and competitive business practices in a changing marketplace.

As designers, we have the tools at our disposal to lead the discipline forward—and if there's one thing SWA does well, it's tackle new challenges with spirit and ambition. We're excited and optimistic about this next chapter, which we believe will ultimately strengthen all of us, and set an example for the industry at large.

Gerdo Aquino & David Thompson
Co-CEOs

INTRODUCTION

Since SWA's establishment in 1957, annual global CO_2 emissions have increased by over 450%.[1] Scientists warn that if we are to remain below the 1.5°C warming threshold and avoid climate catastrophe, we must make comprehensive reductions in global emissions across every sector of the economy by 2030.[2] Astoundingly, the AEC industry is responsible for over 40% of annual global emissions.[3] As a global firm in the fields of landscape architecture and planning, SWA has an important role to play in the pursuit of emissions reduction for our industry. It is our responsibility and profound opportunity as designers, planners, stewards of the natural world, shapers of the built environment, and influential practitioners, to act.

[1] Global Carbon Budget (2023), with major processing by Our World in Data
[2] IPCC, 2023: Climate Change 2023 Synthesis Report
[3] Architecture 2030: "Why the Built Environment"

SWA'S CLIMATE ACTION PLAN IS INTENDED TO SERVE AS:

1. An **actionable, company-wide policy** that outlines **clear decarbonization strategies and processes** to meet our company-wide targets;
2. A **measurement framework** for conducting **carbon assessment** in our project work with a focus on evaluation, iteration, and improvement;
3. A **training plan** to ensure **ongoing education** and alignment of SWA's climate goals and practice;
4. A platform that **communicates our values** to clients, peers, and employees; and
5. A document that creates a **shared understand among staff** about how SWA will prioritize implementation and investment in a **more sustainable future.**

INDUSTRY-WIDE TARGET ALIGNMENT

The SWA Climate Action Plan aligns our emissions reduction targets to the industry-wide standard that ASLA has established, in accordance with the IPCC global call to action, CoP26 Communique, Architecture 2030 Challenge, and other AEC industry goals.

These targets reflect the science of global warming, and asks that landscape architecture firms achieve: 50-65% emissions reduction by 2030.

This first 2030 milestone is a critical target to get on a pathway to become a zero CO_2 emission landscape architecture industry by 2040.

CAP IMPLEMENTATION

The time horizon of this CAP is focused on 2030, and we will work diligently to reduce 50% of our project emissions by this target date.

As you read through, we urge you to consider what actions you can take to contribute to the success of the SWA Climate Action Plan. Together we can reach enormous achievements that will further define SWA as a leader in climate action and innovation, a task only possible through thousands of small actions, discussions, and commitments taken across our firm every day.

It is our critical responsibility and immense opportunity as shapers and stewards of the natural world to act now and ensure a climate positive future.

Martin Luther King Jr. Square, Embodied Carbon Study | Conway, AR

Chapter 1
Decarbonize Our Practice

REDUCE PROJECT EMISSIONS 50% BY 2030

Reducing carbon emissions and increasing the sequestration potential of our collective portfolio is the most impactful action that SWA can take to combat the climate crisis. Emissions impacts from project work greatly outweigh the emissions impacts of our operational business emissions. While we do not yet have a full grasp of SWA's emissions, our architectural peers report that the embodied carbon emissions from one year of design work can be 280 times greater than one year of operational emissions.

SWA is committed to measuring our impacts, supporting firmwide education, and fostering a culture of practice that empowers our design teams to achieve ever-better emissions reductions over time.

SUB-CHAPTER OVERVIEW

Chapter 1.1

Culture of Practice

The SWA Climate Action Plan is part of a broader culture of climate discussion and innovation. For decarbonization to become part of the DNA of SWA, we need a holistic set of practices that makes climate action commonplace. These activities are intended to frame the CAP as an exciting call to action rather than a complicated or ignorable document. By investing in these practices, SWA can not only take meaningful climate action, but also create new outlets for studio team building that reinforce our collective voice and values as a firm in engaging, approachable, and creative ways.

CHAPTER 1.1 ACTIONS

1.1.1 Initial CAP Launch HIGH PRIORITY

In order for the firm everyone at our firm to understand the CAP and its ongoing purpose, three specific actions will be taken:

- The SWA CAP Task Force will host a firmwide online forum to release the CAP, explain its purpose, and facilitate a Q&A session.
- Managing Principal and Studio Climate Champion (see below) will lead studio-based follow ups to galvanize engagement and kick off implementation of the CAP.
- The Climate & Sustainability Leads will develop a SWAP page for the CAP and its associated content (resources, links, additional materials, etc.)

1.1.2 Studio Climate Champion HIGH PRIORITY

Each studio will designate one person as the Studio Climate Champion to work on CAP implementation. Broadly, this includes:

- Understanding the CAP and accompanying materials;
- Advocating for studio-specific CAP Action items;
- Providing ongoing peer support regarding decarbonization best practices and carbon assessment processes;
- Coordinating and following up with project team submissions of carbon assessment Report Outs;
- Meeting monthly with Climate & Sustainability Leads;
- Facilitating the benchmarking process (1.2.1 and 1.2.2)

The SWA Climate & Sustainability Leads will train and coordinate directly with the Studio Climate Champions who will disseminate and communicate important messages and updates to their respective studios.

SWA LEADERSHIP

Supports implementation of the CAP actions & goals, as well as efforts of the C&S Leads and Studio Climate Champions.

↕

CLIMATE & SUSTAINABILITY LEADS

Communicate and coordinate all firmwide climate action efforts. Implement the actions of the SWA Climate Action Plan.

↕

STUDIO CLIMATE CHAMPIONS

Lead and assist with ongoing studio-based CAP implementation, including project decarbonization reviews.

↕

SWA STUDIOS

Integrate SWA's Approach to Decarbonize Design through low-carbon best practices and carbon assessment on projects.

Sausalito Studio

CHAPTER 1.1 ACTIONS CONTINUED

1.1.3 Annual SWA Climate Summit HIGH PRIORITY

SWA will host an annual SWA Climate Summit to engage studios in firmwide progress, facilitate knowledge sharing, build excitement, and promote an inclusive culture of climate action.

- CAP Progress Report
  The SWA Climate Team will organize an annual CAP Progress Report via an online firmwide forum to share SWA-wide and studio-based progress on CAP goals, offer case studies on projects and evolving best practices, and outline key next steps for the upcoming year.

- Innovation Lecture or Round table
  The Annual Climate Innovation Lecture or Round table will invite leading industry or academic climate experts to present to the firm. This may be an online presentation/ forum, in-person gathering, or hybrid event. The event may be internal or public-facing, engaging a broad audience.

1.1.4 Climate Action in SWAG

Include CAP updates and climate action news in the firmwide SWAG newsletter.

1.1.5 Climate-Focused Staff Certifications

Similar to licensure support, SWA will reimburse staff who complete the certification processes such as SITES, LEED, WEDG, Envision, and ILFI.

1.1.6 Board of Directors - CAP Progress Reports

Tracking issues related to the climate crisis will continue to be a focus of the SWA Board of Directors. Selection criteria for outside Board Members includes a broad knowledge base and the ability to articulate an informed point of view with regard to the climate crisis. Climate & Sustainability Leads will provide periodic reports on firmwide CAP progress to the Board.

San Francisco Studio

Chapter 1.2

Carbon Benchmarks for Project Work

Reducing carbon emissions and increasing the sequestration potential of our collective portfolio is the most impactful action that SWA can take to combat the climate crisis. Emissions impacts from project work greatly outweigh the emissions impacts of our operational emissions as a business. While we do not yet have a full grasp on SWA's emissions, our architectural peers report that the embodied carbon emissions from one year of design work can be 280 to over 1000 times greater than one year of operational emissions.

SWA is committed to measuring our impacts, supporting firmwide education, and fostering a culture of practice that empowers our design teams to achieve ever-better emissions reductions over time.

CHAPTER 1.2 ACTIONS

1.2.1 Project Selection HIGH PRIORITY

Collect completed projects for each of the below categories and finalize which projects will be used to conduct an initial benchmark assessment per typology. Selected projects will reflect a variety of locations, scales, and studios, at least one per studio.

- Primarily **softscape** with **LOW use intensity** (such as residential, institutional, conservation)
- Primarily **hardscape** with **LOW use intensity** (such as residential, healthcare, research, office)
- Primarily **softscape** with **HIGH use intensity** (such as urban parks, greenways, playgrounds)
- Primarily **hardscape** with **HIGH use intensity** (such as streetscapes, entertainment venues, retail)

1.2.2 Establish (Internal) Project Benchmarks HIGH PRIORITY

Take a selected group of projects through (post-occupancy) carbon assessment to develop the average benchmark (CO_2e) values for the representative project typology. Coordinate with XL throughout the process.

Halls Bayou | Houston, TX

Chapter 1.3

SWA's Approach to Decarbonize Design

Throughout our work on a project, we are asked to balance competing factors and priorities. Consideration of these trade-offs is at the core of what we do as designers, and factoring in decarbonization adds another layer of value to our design work and for our clients. By taking this integrated approach, great design does not come at the expense of decarbonization, and decisions that lower a project's carbon emissions do not come at the expense of creativity and beauty. Dedicated conversations with the client/owner may be necessary at early design stages to ensure alignment with climate goals. There are a variety of actions and design decisions that we can make on every project regardless of project type.

SWA's Approach to Decarbonize Design begins with the incorporation of best practices, principles, and priorities on all SWA projects. However, to achieve the decarbonization targets set forth in the SWA Climate Action Plan, our project work will need to go beyond best practices; opportunities for decarbonization must be integrated from the submissions of our proposals, through project kickoff, design, construction, and final close out.

Climate consciousness in design is the future of the AEC industry, and a chance for SWA to lead the field of Landscape Architecture by demonstrating a commitment to climate action through our design process.

Refer to Project Workflow Diagram on next spread.

Benchmarking and Pilot Projects will provide SWA the opportunity to test, iterate and refine data collected and proposed project process during the Pilot Year.

This initial process will serve as the basis for rolling out carbon assessment across project types firmwide. Integrating carbon assessment into design services will be critical to expanding the number of new projects documented in the SWA emissions tracking database.

CHAPTER 1.3 SUPPORTING ACTIONS

1.3.1 Greenline Specifications HIGH PRIORITY

SWA Field Group will work to update boilerplate specifications to reflect "greenlined" language that promotes decarbonization and sustainability. The studio spec writers (with support from the Climate & Sustainability Leads) will be responsible for making any regional changes necessary, adopting the language, and updating specification submittals on all projects to reflect updates made to the following sections:

- Division 03 – Concrete
- Division 05 – Metals
- Division 31/32 – Earthwork, Fill, Soil

1.3.2 Develop Low-Carbon Materials Database

SWA Climate & Sustainability Leads will create a low-carbon material and product database with cut sheets, EPDs, and manufacturer contact information. The Field Group & XL Lab will assist with information regarding material details, manufacturer information, and EPD uploads to the SWA EPD Database.

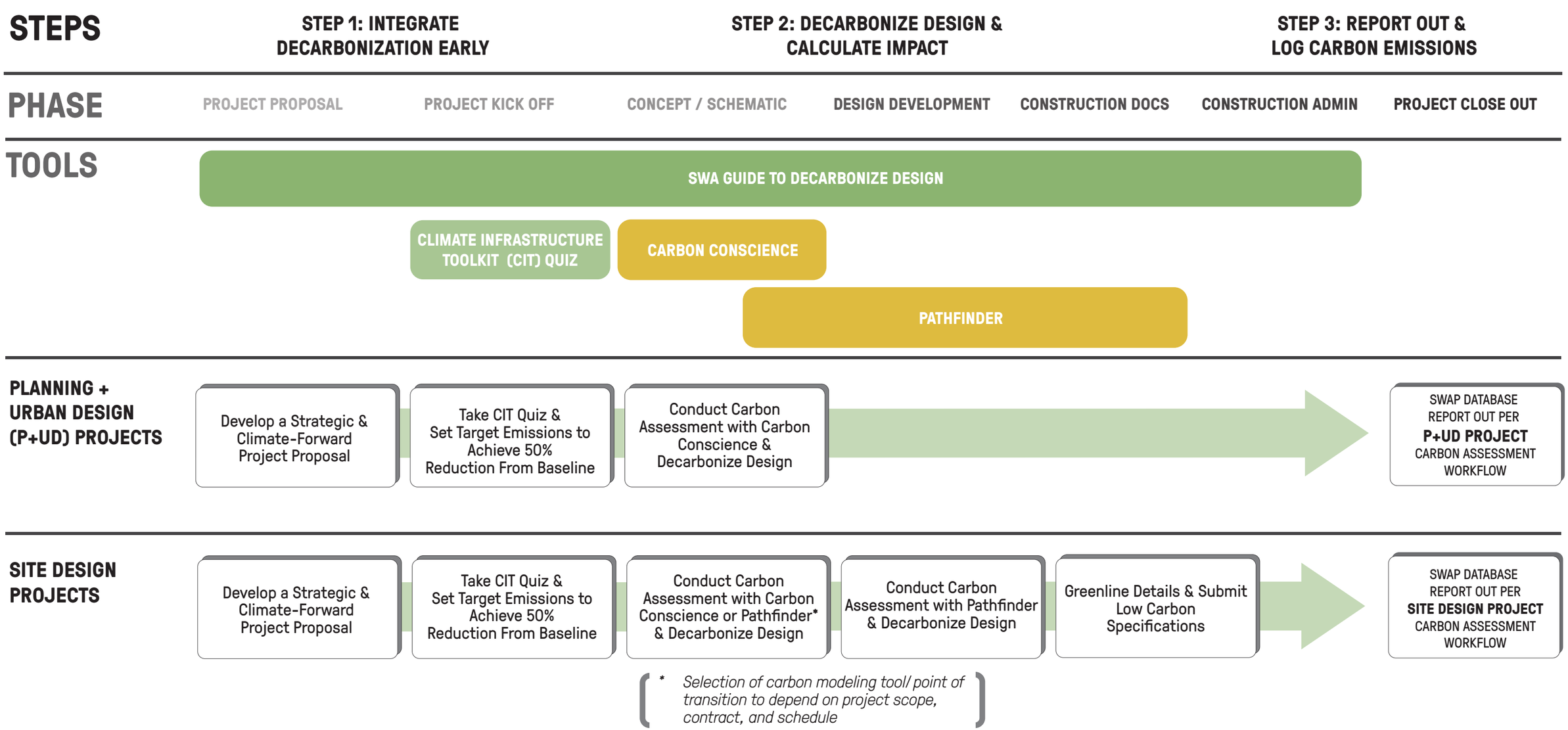
Designers will reference/request Environmental Product Declarations (EPDs) from manufacturers to become familiar with embodied carbon impact of materials, complete more accurate carbon assessment, and contribute to the SWA EPD Database (and EC3).

1.3.3 Develop Internal Material Takeoff Tools

SWA BIM Team, with the support of the Climate & Sustainability Leads, will collaborate on tools to measure material quantities and their construction assemblies (three-dimensional components) to improve efficiency of carbon assessment workflow.

CHAPTER 1.3 PROJECT WORKFLOW DIAGRAM HIGH PRIORITY

The diagram below represents a simplified graphic of the project workflow process. For the detailed steps to complete carbon assessment refer to the SWA Guide to Decarbonize Design one pager.



Chapter 1.4

Staff Education & Training

To successfully implement the goals around decarbonizing our design process, assessing carbon emissions of our projects, and improving our material specifications, SWA employees need to be equipped with the information, resources, and training to become comfortable making these decisions. Prioritizing varying levels of employee education and training will be essential in this effort.

CHAPTER 1.4 ACTIONS

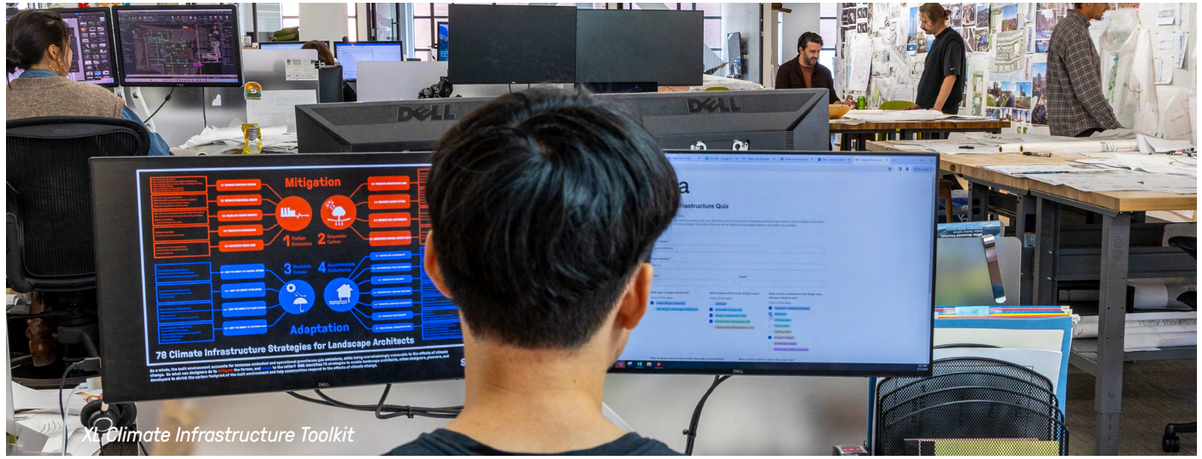
1.4.1 CAP Onboarding
Integrate a 1-hour CAP Review & Training into existing onboarding procedures.

1.4.2 CAP Project Processes Training HIGH PRIORITY
Develop a tutorial in coordination with the MarComm Team to introduce Principals and project managers to the Decarbonize Design approach. This training will include: how to manage workflows and integrate CAP messaging in interviews, client conversations, and presentations. Annual workshops will be offered as refreshers.

1.4.3 Carbon Assessment Bootcamps
Host a series of carbon assessment Bootcamps. These deep-dive trainings are intended to review the carbon assessment tools and process.

1.4.4 Field Symposium: Sustainability Topics
Host a Climate & Sustainability segment at each annual Field Symposium (organized by a member of SWA's Field Group) to continue "greenlining" our boilerplate specifications, learn about innovative materials out on the market, and review opportunities to decarbonize construction details.

1.4.5 CAP Certification Quizzes
In coordination with XL and the work developed for the Climate Infrastructure Toolkit, develop "CAP Certification Quizzes" for SWA employees to learn, test, and get "certified" on varying climate-related topics. The intention is for people to study and review content with a lower time commitment (max 30 minutes). These "certifications" can be tags referenced on internal SWAP profiles.



XL Climate Infrastructure Toolkit

1.4.6 SWAP 'Sustainability Snacks'
Post SWAP 'Sustainability Snacks' as bite-sized information sharing that presents easily digestible definitions, talking points, innovative material news, etc. for quick moments of education.

1.4.7 Lunch & Learns
Provide a standard request for all vendors to highlight sustainability practices in the services or products they are presenting.

- Innovative Materials
  Schedule at least four "Innovative Material Lunch & Learns" in each studio every year, spearheaded by the Studio Climate Champion. These materials can be specific to local geographies or be national products, and cover innovation topics ranging from low-carbon materials, low-impact systems, circular economy products, and healthy/non-toxic materials. Each studio should post the presentations, highlights, and websites of these companies on SWAP for future reference.

- Climate Partnerships
  Feature non-traditional, climate-forward entities (i.e. local advocacy groups, academics, firms we might partner with, etc.). At least one per studio per year.

Los Angeles Studio

Chapter 2
Decarbonize Our Operations

MEASURE AND REDUCE OPERATIONAL EMISSIONS

Running a business can have an environmental cost: from the electricity that powers our computers to the fuel burned during business travel, the decisions we make about how SWA conducts business directly affect our company's emissions. Decarbonizing our operations means scrutinizing 'business as usual' practices to achieve ever-better emissions reductions over time. After all, the values that we embed into our project work—to build community, nurture and protect ecosystems, and reconnect people with nature and one another—should also be reflected in the way we run our business.

SUB-CHAPTER OVERVIEW

2.1 Establish Operational Emissions Baseline & Audit Annually

2.2 Reduce Office-Based Emissions

2.3 Reduce Business Travel Emissions

2.4 Reduce Employee Commuting Emissions

2.5 Offer Decarbonized Retirement Funds

Chapter 2.1

Establish Operational Emissions Baseline & Audit Annually

The first step in lowering our operational emissions is to conduct a baseline analysis for the most recent Fiscal Year to better understand our operational emissions. We will do this by tracking emissions categories in Scope 1, 2, and 3 for each of SWA's eight studios.

These will include:

- Scope 1: Office Energy Use – Natural Gas
- Scope 2: Office Energy Use – Electricity
- Scope 3: Business Travel – Airplane/Vehicular, Employee Commuting

A baseline assessment will tell us where our emissions hotspots are between these three categories so that we can then prioritize our efforts and strategies on decarbonizing where it will be most impactful.

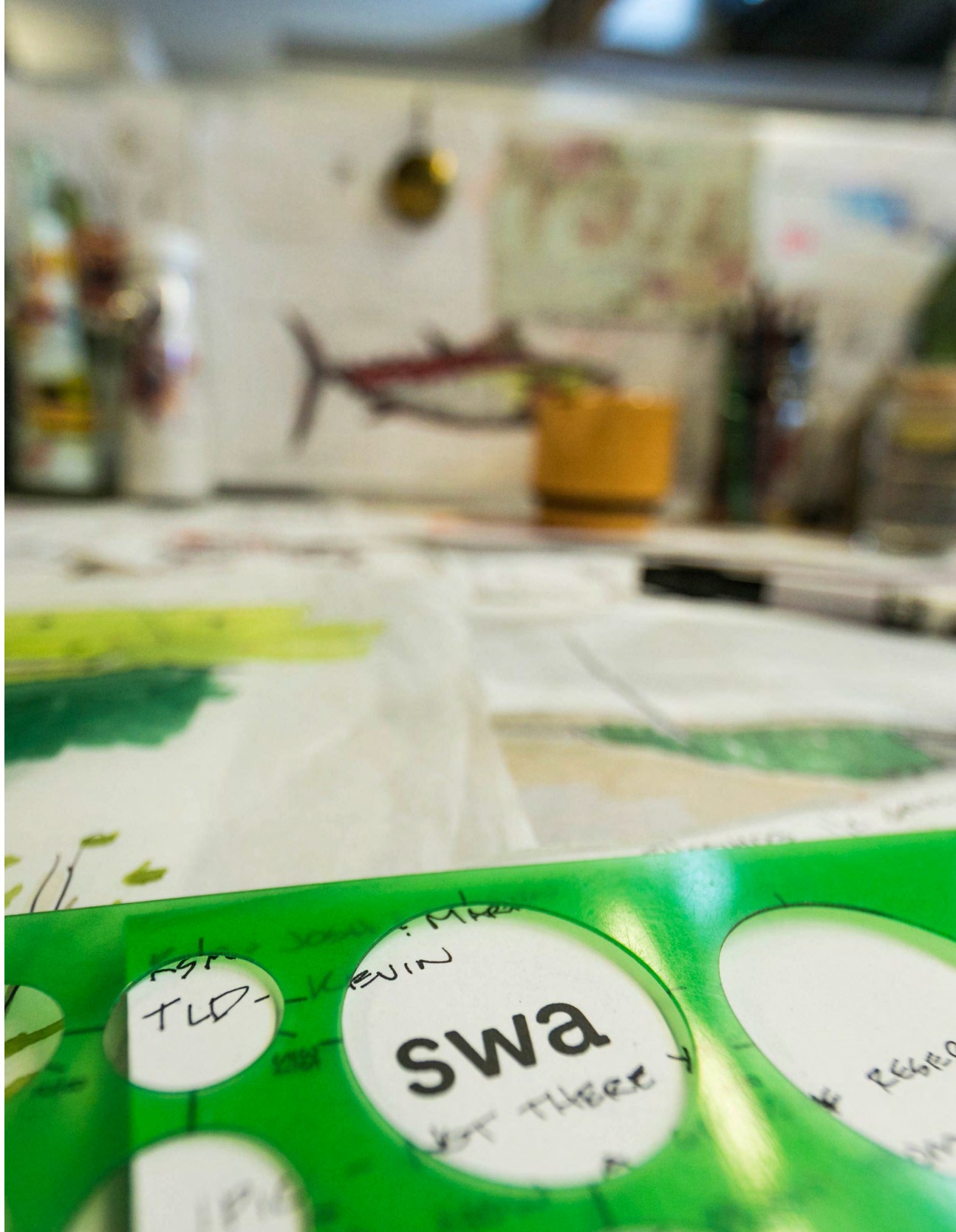
CHAPTER 2.1 ACTIONS

2.1.1 Conduct Initial Operational Baseline Analysis **HIGH PRIORITY**

Contract a third-party consultant to assist in gathering internal data and calculating our emissions baseline from the above Scope 1-3 categories.

2.1.2 Track Emissions Annually

Collaborate with Accounting Team to continually track Natural Gas use (Scope 1), Electricity Use (Scope 2) and Business Travel and Employee Commutes (Scope 3) annually. Review and update internal accounting processes to better track emissions activities, especially as related to air travel.



Chapter 2.2

Reduce Office-Based Emissions

The operations of our studios alone make up the entirety of our Scope 1 & 2 emissions. To decarbonize the emissions produced from each SWA office, we need to focus on improving the operational efficiency of our offices, invest in upgrades, and find opportunities to source our direct energy/electricity from renewable resources. For offices that lease their space, it is especially important to advocate for these changes when first selecting or renewing a lease, at which point owners are more willing to address requests.

The following checklist is intended to be utilized as a starting point. Individual studio circumstances vary, and improvements/investments will be made at the discretion of the Managing Principal and CFO.

CHAPTER 2.2 ACTIONS

2.1.1 Reduce Scope 1 Emissions

- ☐ Use an electric heat pump instead of a gas furnace.
- ☐ Use an electric or on-demand water heater instead of a gas water heater.
- ☐ Install and use on-site renewable energy to power the studios.

2.1.2 Reduce Scope 2 Emissions

- ☐ Set studio lighting on timers or install vacancy sensors.
- ☐ Replace all fluorescent bulbs with LED lighting.
- ☐ Install reflective or lighter-color roofing to lower energy demand.
- ☐ Install a smart thermostat.
- ☐ Purchase renewable energy. For leased offices, advocate for renewable energy options with your building owner/manager.
- ☐ Verify that studio appliances are “energy efficient”.
- ☐ Require grounds-maintenance use electric equipment (if applicable).**

2.1.3 Reduce Scope 3 Emissions**

- ☐ Request vegetarian meals for catered events.
- ☐ Enforce a “ no single-use items” policy for catering.
- ☐ Use filtered water instead of plastic water bottles.
- ☐ Maintain office recycling program, including educational information about local recycling criteria.
- ☐ Compost. Explore composting options, including third-party providers, if not available in the city of studio location.

**Footnote: These are best practices and are not being calculated in our firmwide Scope 3 emissions assessment.

Solar Power at the Sausalito Studio

Chapter 2.3

Reduce Business Travel Emissions

Business travel represents a significant portion of operational emissions for most AEC firms, sometimes accounting for over 50% of operational emissions. Incentivizing cleaner, environmentally responsible modes of travel and reducing non-essential trips is key to reducing SWA's Scope 3 emissions.

CHAPTER 2.3 ACTIONS

2.3.1 Create Firmwide Sustainable Travel Guidelines HIGH PRIORITY

Informed by and created after the initial baseline exercise (see 2.1.1). Set clear expectations and guidelines for work travel. Provide staff with a structure to help them make more sustainable travel choices, control travel budgets and track emissions targets. This plan may include:

- Local Low-Carbon Travel
  Incentivize sustainable travel options, such as public transit and carpooling to meetings and site visits.

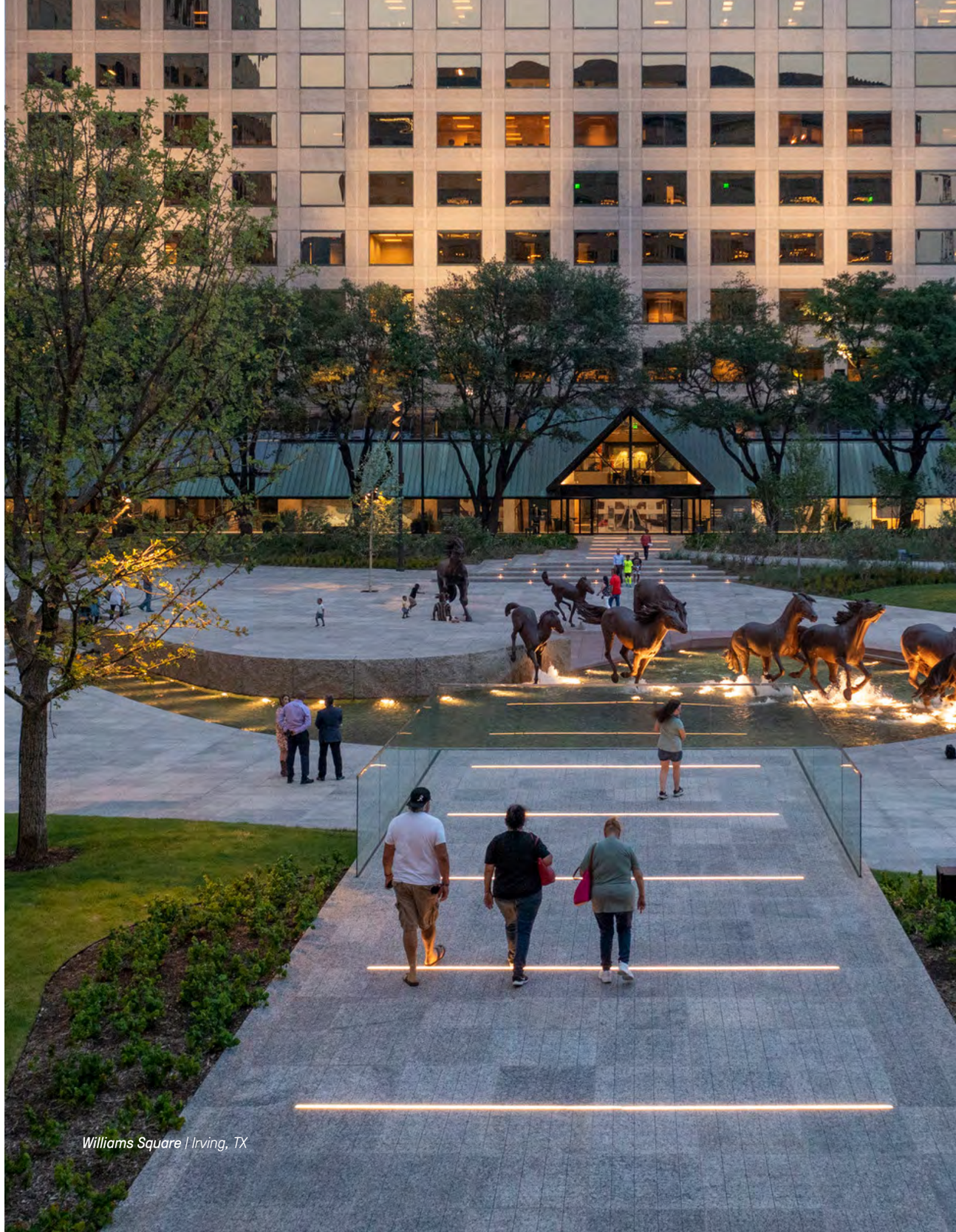
- Sustainable Travel Education
  Provide training and resources to employees about the importance of reducing travel emissions and how they can contribute through their travel choices.

2.3.2 Remote Collaboration Technology

Adopt remote collaboration technologies: Invest in high-quality video conference tools, virtual reality (VR) technology for virtual site visits, tools to support paperless workflows, and collaborative online workspaces to reduce the need for travel.

2.3.3 Pursue Local Clients

Create a Business Development strategy for building a local client base to reduce the need for long-distance project-related travel.



Williams Square | *Irving, TX*

Chapter 2.4

Reduce Employee Commuting Emissions

How SWA employees get to work is a personal decision, influenced by a variety of factors. Transportation options are not the same for each of our studios, leading to unequal access to sustainable options. SWA will work to ease barriers to low-carbon commuting and provide support for our employees to make decisions that reduce our collective commuting emissions. Reductions in our commuting emissions (Scope 3) are necessary for achieving our operational emissions reduction goals.

CHAPTER 2.4 ACTIONS

2.4.1 Employee Commute Survey **HIGH PRIORITY**
Survey employees every year to track commuting emissions data and identify barriers to reducing single occupant combustion-engine commuting.

2.4.2 Office Locations
Prioritize multi-modal transit opportunities when selecting new office locations and renewing leases. Reference 2.2 for other office operations considerations when relocating.

2.4.3 Commuting Education
Expose employees to local sustainable commuting options to increase awareness and reduce barriers. Office managers and/or appointed employee to communicate transit options and routes to new employees and interns as part of offer letter or onboarding.

Milton Street Park | Los Angeles, CA

2.4.4 Create an Employee Commuting Emissions Reduction Plan
Each studio will create a tailored Employee Commuting Emissions Reduction (ECER) Plan that suits their location/needs, created with Managing Principal participation and approval. This plan may include:

- Public Transit Subsidies
  Subsidize public transit passes. Example: each employee has access to $100/month for reimbursable transit use.
- Active Transit Subsidies
  Incentivize active modes of transportation and micromobility. Example: $50/month for active transit commuters (bike/walk/scooter/etc.).
- Alternative Mobility
  During the workday, provide alternative mobility for staff errands and local project meetings to alleviate the need for a personal vehicle. Example: bicycles and e-bikes, bike share passes, or e-car share passes.
- Commuting Groups
  Organize and facilitate commuting groups within the studio, for example carpools, transit buddies, and cycling/walking groups.
- Bike Storage
  Provide the means for safe, secure, and sheltered storage for employee bicycles/ scooters.
- Changing Rooms & Showers
  Provide access to shower and changing rooms to encourage active transportation commuting, which also increases employee health and wellbeing.

Chapter 2.5

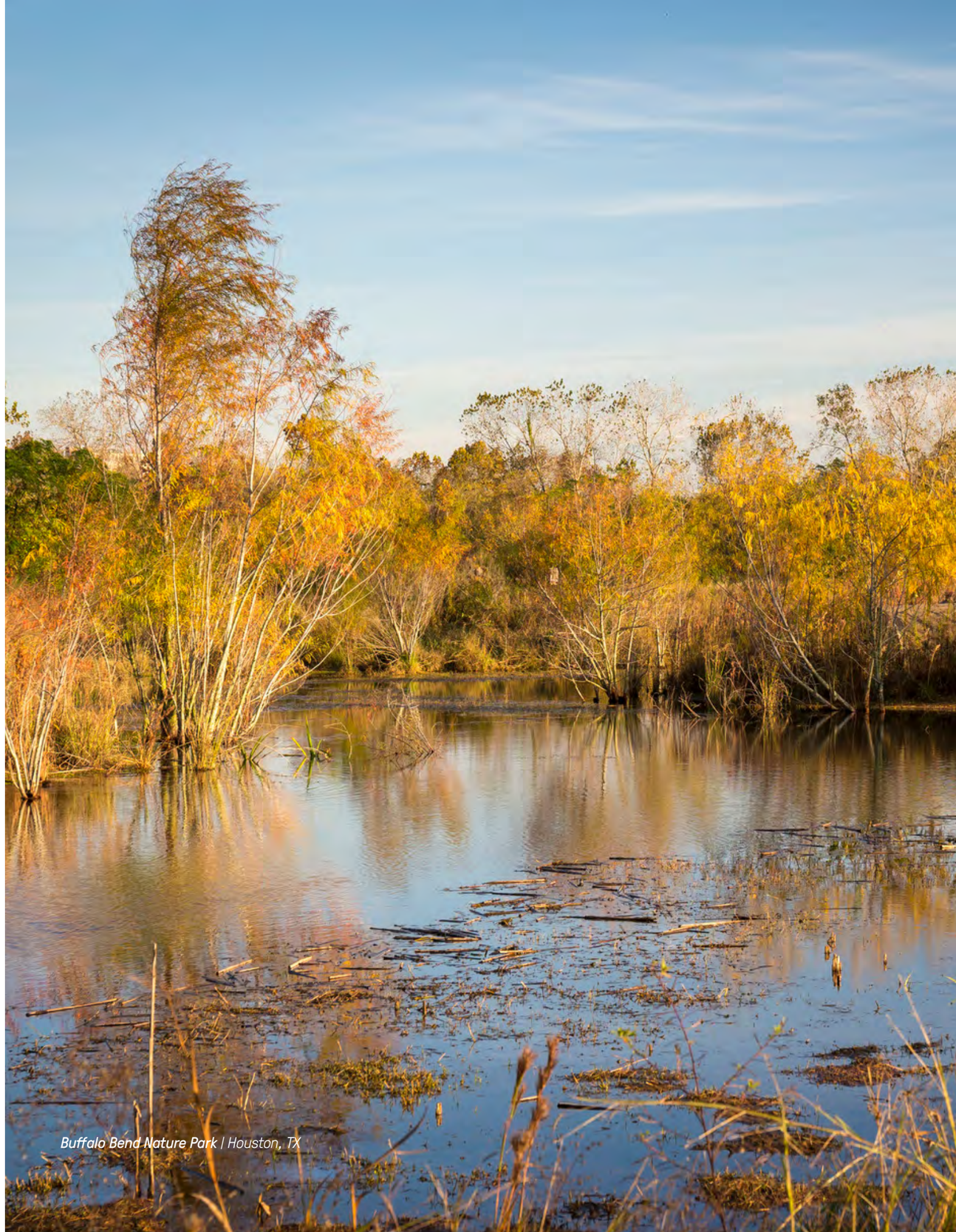
Offer Decarbonized Retirement Funds

For today's designer, the retirement landscape will be more volatile and financially uncertain if we continue to collectively invest in fossil fuel corporations and align our retirement goals with planet-pilfering profits. Offering pre-vetted, decarbonized investment options empowers interested individuals to easily choose retirement plans that do not compromise our collective future while still fulfilling SWA's fiduciary duty to employees.

CHAPTER 2.5 ACTIONS

2.5.1 Offer Decarbonized Retirement Options HIGH PRIORITY

Work with Charles Schwab to craft a fossil-fuel-free ESG fund, open to any employee who wishes to opt-in.



Buffalo Bend Nature Park | *Houston, TX*

NEXT STEPS

It is the ambition of the CAP Task Force that the SWA Climate Action Plan will be approved and ratified by the Executive Committee in late September and be presented to the firm shortly thereafter. We will then begin immediate implementation of the actions within the chapters of the Climate Action Plan.

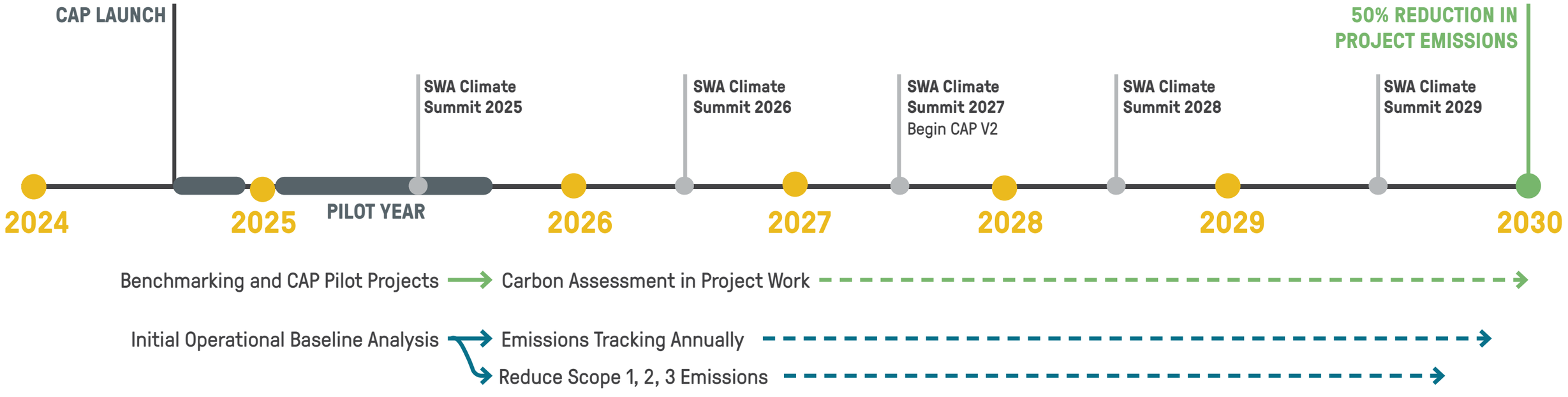
ANNUAL CAP PROGRESS REPORT

Each year, the Climate & Sustainability Leads will take inventory of our collective progress toward the target of decarbonizing our project emissions by 50% by 2030. This inventory will be included in an annual report on completed and outstanding action items. This will be followed by firmwide presentations and engagement during the 'SWA Climate Summit.'

CAP V2 - BIODIVERSITY & 2040 GOALS

This Climate Action Plan is a living document. Version 2 will be updated in 2028 to reflect our progress and further integrate key climate topics, such as a new chapter addressing biodiversity outcomes. This second version will also recalibrate SWA's decarbonization strategies in alignment with ASLA guidance and the latest climate science as we collectively work toward global 2040 decarbonization targets.

SUMMARY TIMELINE



Terms Glossary

Climate Positive Design
Design that reduces emissions and increases sequestration over a project's life span while also providing environmental, cultural, and economic co-benefits such as biodiversity, equity, and resilience. (ASLA Climate Action Plan)

Embodied Carbon
According to Carbon Leadership Forum (CLF), embodied carbon "refers to the greenhouse gas emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building materials" while operational carbon "refers to the greenhouse gas emissions due to building energy consumption" Environmental Product Declaration (EPD) - An EPD is a third party-verified documents written in conformance with international standards that report the environmental impacts of a product, including its global warming potential, based on life cycle assessment models

Greenhouse Gas (GHG)
Any gas in the atmosphere emitted by human activity that absorbs and re-emits heat. There are seven GHGs covered by Kyoto Protocol: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF6), and Nitrogen trifluoride (NF3). (One Click LCA)

GHG Emissions Scope
Scope 1 emissions are from a company's operations that are under a facility's direct control, such as on-site fuel combustion; Scope 2 emissions are from usage of electricity, steam, heat, and/or cooling purchased from third parties; and Scope 3 emissions are upstream and downstream value chain emissions, including upstream supply chain emissions from purchased products, transport emissions, and business travel and downstream emissions from transport of products, usage of sold products and product disposal. The primary categories of scope 3 emissions associated with embodied carbon are (1) purchased goods and services and (2) capital goods, or assets that are used to produce goods or services. (Carbon Leadership Forum)

Life Cycle Assessment (LCA)
A systematic approach for evaluating the environmental impacts of a building, product, or process over its full life cycle, from raw material extraction through end-of-life and disposal. By providing a standardized and robust approach to estimating the carbon impacts of construction products and projects, LCA can support more informed decision-making from early design through procurement. (Carbon Leadership Forum)

Net Zero
An activity that removes as many greenhouse gases (inclusive to all, such as carbon dioxide, methane, or sulfur dioxide) from the atmosphere as it emits. (ASLA Climate Action Plan)

Operational Carbon
In contrast to embodied carbon, operational carbon refers to the greenhouse gas emissions due to building energy consumption. Associated with the life-cycle phase B (use stage). (Carbon Leadership Forum)

Upfront Carbon
According to LETI, ""Upfront Carbon' emissions are the GHG emissions associated with materials and construction processes up to practical completion (Modules A0-A5). Upfront carbon excludes the biogenic carbon sequestered in the installed products at practical completion".

Whole Life Carbon
Whole Life Carbon emissions are the sum total of all asset-related GHG emissions and removals, both operational and embodied over the life cycle of an asset including its disposal (Modules: A1-A5 Upfront; B1-B7 In Use; C1-C4 End of Life). Overall Whole Life Carbon asset performance includes separately reporting the potential benefit from future energy recovery, reuse, and recycling (Module D). (LETI/WLCN 2021)

Zero Carbon
An activity that releases no greenhouse gases into the atmosphere. As opposed to net-zero emissions, which allows for offsetting of emitted carbon to reach a balance of zero, the zero emissions approach focuses on absolute emissions. (ASLA Climate Action Plan Field Guide)

For further terminology review: One Click LCA Glossary
https://oneclicklca.com/en/resources/articles/construction-lca-glossary

SWA Climate Action Plan

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