AMERICAN PLANNING ASSOCIATION
ENVIRONMENT, NATURAL RESOURCES & ENERGY DIVISION

Newsletter

Fall
October 2020

From the desk of the Division Chair

To our Division members and all our readers,

Welcome to the Fall ENRE newsletter. Thank you all for continuing to "tune in" and for all your efforts during these very trying times!

There is much going on with ENRE. As many of you may have already noticed, ENRE is transferring to a new web platform. This was done with the expert support of APA National and we think you will be quite pleased with the results. Come visit us at: **https://environment.planning.org/**

Our annual student fellowship closed on September, and we are currently reviewing the applications. As in the past, we seeked students with strong ENRE-related projects as part of their graduate studies. Winner of the fellowship will be announced on the Winter newsletter.

We continue to collaborate with other APA divisions, in particular the Sustainable Communities Division (SCD). We recently partnered to hold a webinar, "Preparing to Plan for Climate Change—What Tools Do We Need," which aired on July 28 and August 6. It's been recorded and has been made available on the ENRE and SCD web pages.

We sincerely hope that you and your loved ones are faring well during this challenging time.
Please Stay Safe!

Jim Riordan, AICP, LEED AP
ENRE Division Chair

Announcements

Want to have a project featured in the next newsletter?

We are always looking for new content. If you have been working on an ENRE related project for work, research or just for fun, we would be happy to publish your work in the next newsletter. Email us to learn more about this opportunity.

Join the Division's Fall Business Meeting

Join us virtually on October 27th, 2020, for the division's Fall Business Meeting. If you are unable to attend the meeting, a recording will be available of the meeting as well as the cafe workshop ideas

Stay connected with ENRE by joining our LinkedIn and Facebook groups

Join the Division's Facebook page to share and learn about projects, news, or ideas about environmental planning, natural resources, or energy.

Join the Division's LinkedIn to share job postings, professional news, and conference & webinar information.

We want to hear from you! Take the membership survey today!

As always, reach out to us at:
apaenre@gmail.com

The Disappearance of Coastal Louisiana

By: Bridget Tydor, AICP ENV, Senior Planner (Pond)

Image: Pond

Debates over land can end lifelong friendships, dissolve communities, and plunge delicate souls into despair – as realistically depicted in Tread (2020). Suffice to say, environmental, natural resource, and energy planning is contentious, and the planners who embark on these plans must choose their paths wisely, as facilitators of positive change for stakeholders in sometimes hostile settings.

The Planners and GIS analysts at Pond & Company (Pond), encountered some of these challenges in developing a master plan for the Edward Wisner Donation, whose lands in coastal Louisiana are rapidly disappearing. The main goal of the plan was to detail specific projects that would be submitted to the Coastal Protection and Restoration Authority (CPRA) for consideration in the state's 2023 Master Plan Update.

In first discussing a planning process, it was somewhat daunting to consider the interconnected relationships between the land owners, caretakers, tenants, private company interests, and environmental organizations, the declining natural environment, and the economic impact the region has on the rest of the country. No single entity, plan, or project could represent the community, save the land, and sustain it for generations to come. A master plan based on the experiences and subject matter expertise of the diverse community was needed, and to earn a seat at the table, Pond wanted to learn as much as possible about the who, what, when, where, and how The Edward Wisner Donation and their land interest became what it is today.

Who: The Edward Wisner Donation was created by Edward Wisner, a businessman who moved from Michigan to Louisiana in the late 1800s for his health.

When: In 1914 he donated about 50,000 acres of coastal wetlands to the City of New Orleans, Charity Hospital New Orleans (now University Medical Center), Tulane University, and the Salvation Army to fund certain specified charitable purposes. The City was named the Trustee of the Donation.

Mr. Wisner died in 1915, and a few years later, in the 1920s oil was discovered. Production, however, did not begin on Wisner property until the 1940s.

What: In 1929, Mrs. Wisner, their two daughters, and their attorneys also became beneficiaries.

How: A system was created to distribute net revenues on a monthly basis to the beneficiaries. Revenue streams from the land include: oil and gas royalties; industrial leases to the Greater Lafourche Port Commission for Port Fourchon and to other oil and gas support service companies; recreational leases for fishing camps, hunting and trapping leases; and commercial fishing leases.
Where: Wisner's property is located in Jefferson, Lafourche, and St. John the Baptist Parishes in Southeast Louisiana. The 50,000 acres of land lie within the Barataria Basin, a degrading deltaic lobe of the Mississippi River. The basin is sediment and freshwater starved as a result of the leveeing of the Mississippi River.

The Barataria Basin lost approximately 277,000 acres of wetlands between 1932 and 2015; AND Louisiana is losing coast at the rate of 1 football field per 100 minutes; AND Louisiana accounts for 80% of the nation's coastal wetland loss; AND there are many other statistics, anecdotes, and photos which would plunge the most disenchanted souls into despair.

Over the years Louisiana worked tirelessly to reduce land loss. In 1990 Congress passed the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA, also known as, "The Breaux Act") a partnership between Louisiana and the federal government to implement restoration projects. Following Hurricanes Katrina and Rita, Louisiana formed CPRA as a single state entity tasked with developing an integrated approach to hurricane protection and ecosystem restoration. Coastal Louisiana became a testing ground for climate adaptation strategies, and out of necessity Louisianans have become accustomed to planning to mitigate hazardous conditions, obtain funding, and ensure a pleasing quality of life. In 2007, CPRA created Louisiana's first-ever Comprehensive Master Plan for a Sustainable Coast. See funding program details below. Projects can be proposed by anyone, but one must have a plan.

	CWPPRA [1]	CPRA [2]
Established	April 1990	December 2005
Budget	$1.9 billion	$26 billion
Project Types	Structural Protection, Living Shoreline, Ridge Restoration, Shoreline Protection, Barrier Island Restoration, Marsh Creation, Sediment Diversion, Hydrologic Restoration, Beneficial Use of Dredged Material, Terracing, Sediment Trapping, Vegetative Planting, Bank Stabilization, Infrastructure, Miscellaneous	
# Completed	112 projects	164 projects
# Active	41 projects	120 projects
# acres protected or restored	100,000 acres created 355,647 acres enhanced	46,058 acres coastal habitat 327 miles of levees 60 miles barrier islands and berms
Project Submittal Period	Every (1) year	Every (6) years

Sources: [1] CWPPRA website and 2018 Evaluation Report to the U.S. Congress on the Effectiveness of Coastal Wetlands Planning, Protection and Restoration Act Projects. [2] CPRA website and CPRA Fiscal Year 2021 Annual Plan.

The planning team's primary focus was building consensus on specific projects, as stakeholders might not agree on a land building measure and spend the entire workshop debating its merits. Alternatively, stakeholders might champion certain projects and ignore all others proposed. Environmental justice groups could use the workshop as an opportunity to confront oil and gas companies, and the oil and gas companies could respond by taking funding for coastal restoration projects away.

Taking these concerns into consideration, the Pond team implemented a fully collaborative planning charrette based on previously exercised Federal planning experience to build consensus with anonymous brainstorming exercises where stakeholders identified common themes from the responses gathered. Time was spent listening to different stakeholders talk through the individual and unique assets and liabilities of each area of land. Stakeholders also shared experiences with land loss, how they use the land, and different projects that are already happening. Learning about mutual interests, for example, that oil and gas employees hunt and fish on the land, and hunters and fishermen take part in tree planting, helped everyone realize a shared goal of conservation.
Stakeholders suggested mitigation strategies, and while they could debate the merits, emphasis was placed on personal experience. The Pond team tried to understand what mattered most to each of the stakeholders and frame the proposed solutions in a way that made sense based on their values (often referred to as moral reframing). At this stage in the planning process, the use of smart screens or models would have devalued the knowledge of those gathered, so the planning team further facilitated progress through hands-on development of tailored projects based on collaborative stakeholder input. Additionally, developing projects of varying scales supported discussion on funding mechanisms and resources. Through this exercise, stakeholders identified numerous opportunities to support projects they championed.

Fifteen potential projects were identified and mapped through the charrette exercises. In the next few weeks, the planning team followed up with subject matter experts to scale each project and detail those that would be proposed to CPRA's 2023 Update. The finalized plan proposed Construction of Oyster Reef Breakwaters along Caminada Bay and Hydrologic Restoration within the Lac Des Allemands area that were submitted to CPRA for consideration. They are as follows:

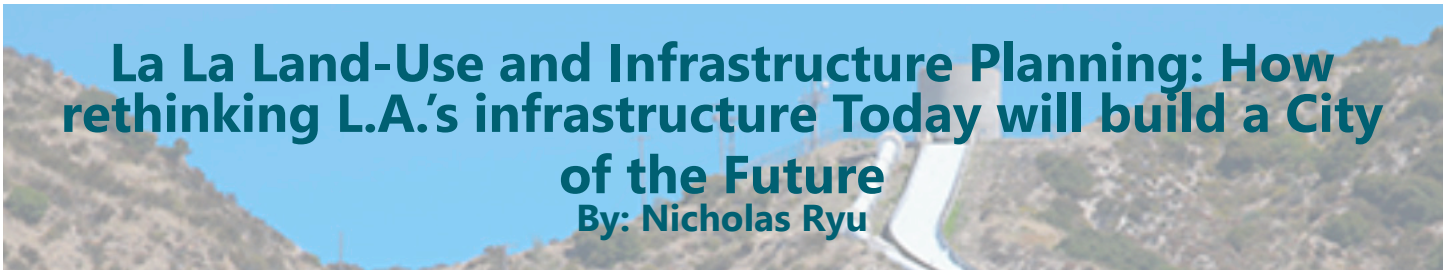
Construction of Oyster Reef Breakwaters along Caminada Bay
Where "Oyster Castles" or similarly engineered concrete armor units are used to construct a series of linear breakwaters along the western shore of Caminada Bay. These breakwaters attenuate wave action, reduce shoreline erosion, protect endangered marshland surrounding a vital vehicle route (LA Hwy 1), and foster the development of oyster habitats. Using the oyster shells to create an artificial reef that over time becomes an actual reef or a habitat for oysters and fish.

Hydrologic Restoration within the Lac Des Allemands Area
This project would include construction of a pump/siphon structure along Bayou Lafourche that would divert freshwater into the marshes, bayous, and lakes of the Upper Barataria Sub-Basin. This would recreate the conditions necessary to plant marsh plants and build up land.

The problems addressed in this plan are not unique to The Edward Wisner Donation, and the planning process employed was not so much revolutionary. The takeaway is that those involved worked collectively and accepted the natural overlap of ecologies and economies in a manner that was refreshing, energizing, and effective. Opinions and values were respected, and decisions were made with everyone's best interest in mind.

La La Land-Use and Infrastructure Planning: How rethinking L.A.'s infrastructure Today will build a City of the Future

By: Nicholas Ryu



Los Angeles Aqueduct System a water conveyance system that transports water from the Owens Valley near the Eastern Sierra Mountain range hundreds of miles to Los Angeles. Photo courtesy of Santa Clarita News.

As urban planners, what comes to mind when you hear of the word infrastructure?

Do you think of roads and sidewalks that affect traffic flow, the use of pipes and wires that transport water and energy to buildings, trees that provide shade and urban cooling, or streetlights that illuminate the public right-of-way during the night? As urban planners, your answer should be all of them and more, because developing infrastructure is an example of urban planning in action and the partner for success.

Infrastructure planning enables cities to successfully prepare for the future. This has been an evident pattern over time because the genesis of cities is largely driven by what is built. Take Los Angeles for example.

Los Angeles has existed as a city since the mid-19th century, but it started to become a recognizable, sprawling metropolis due to World War II. Manufacturing exploded, as part of the war effort and the needed transportation infrastructure grew in tandem. In the 1950's and 1960's, the Interstate Highway System significantly propelled economic and suburban growth by allowing people to relocate to this City. As the population grew and Los Angeles became a bustling hub of diverse industries (not just manufacturing, but also sports, entertainment, fashion, media, and now technology), resource demands for land space, energy, water, transportation, and food also exponentially increased. Being the second largest city in the country by population (four million) and part of the largest county in the country by population (ten million), Los Angeles is ubiquitously known as a product of urban sprawl.

Fast-forward to the present-day and reflecting on this city's history, Los Angeles would not have existed without its infrastructure because its resource needs are met with infrastructure built outside of its city boundaries. For decades, the 400+ mile long L.A. aqueduct has more or less needed to be a reliable source of potable water. Billions of dollars are spent operating, maintaining, and expanding interstate power transmission and generation infrastructure from as far as Utah, and from both nonrenewable and renewable energy sources (ex: the Eland Solar and Storage Center). And the Los Angeles and Long Beach ports located within LA County are a gateway of international trade between the United States and Asia. These ports generate billions of dollars in trade and GDP and employ

Image: LA Mayor's Office. November 6, 2019.

Eland Solar and Storage Center, located in Kern County, California. This project will capture 400 megawatts of solar energy and store up to 1,200 mega-watt hours of energy – enough stored energy to power almost 300,000 homes in Los Angeles.

hundreds of thousands of people. Not to mention that they provide a lifeline of commerce and supplies to the western half of our country, which requires a ton of space and work to maintain the highways that allow these economic activities to take place.

So when looking to the future, investing in L.A.'s infrastructure is the solution to achieving the long-term goals of L.A. County's 2035 General Plan, L.A. County's Our County sustainability plan, and L.A. City's Green New Deal 2019 Sustainability pLAn. A dire need for more affordable housing, alternative transportation methods, and more sustainable ways of living are at the constant forefront of planners and future-minded people's minds, and the constant expansion and improvement of local infrastructure by Public Works departments and utilities will alleviate these worries for good.

While not the de facto planning agencies, Public Works departments and utilities act as a versatile swiss army knife by creating and maintain infrastructure that is reliable enough to create a livable and sustainable city. Public Works departments build, operate, and maintain infrastructure (street furniture like bus stops and drinking fountains, water pipes, electrical grids, trees, waste bins etc....) so that people can have reliable resources needed for their indoor buildings and personal needs. When infrastructure is well-maintained and upgraded, it's reliability and adaptability increase to extend what is beyond their normal functional use. Parks not only serve as green, open spaces but also as opportunities to capture stormwater and build local water resource resilience. Underutilized alleys and streets can become outdoor dining spaces, new bicycle lanes, treescapes, and/or parklets. Underutilized brownfields and old infrastructure sites can be adaptively reused to become new affordable housing sites, community gardens, or solar farms.

When you think about it, local infrastructure is a precious resource. Everyone needs it and taking it for granted by not maximizing its uses or maintaining it properly will spell disaster for any urban planner. As planners, we need to admit that our plans can mean nothing without the support of public works departments and utilities. To solve housing by approving more multifamily development projects and ADUs, the ability of utilities to provide enough energy electrical and water infrastructure capacity could become the deciding factor if whether or not a developer will build. Otherwise, these potential homes will become dead shells of lost housing opportunity. Air quality in cities will not improve unless more cars can become electric and more trees are planted, but the EV charging infrastructure and resources needed to cultivate trees need to be ready to go to meet these new demands.

Otherwise, people will not drive EVs and trees will die (especially if you live in a dry area without adequate water resources). As more and more people need technology and Wi-Fi to work and play (especially during COVID-19 where demands for wireless technology have skyrocketed), the need for the expansion

5G - Cell Towers Co-located on L.A.'s Streetlights

of 5G cellular networks and Wi-Fi hotspots become even more critical for economic development, education, and residents in all dwelling types. Co-locating these 5G cells and installing Wi-Fi hotspots in the public right-of-way on buses, bus shelters, or even streetlights.

5G is the next generation of cellular technology (after 4G LTE), and is expected to reduce latency in mobile networks and encompass larger distances of signals compared to Wi-Fi networks. Courtesy of the Los Angeles Bureau of Street Lighting.

Altogether, proper infrastructure planning to create versatile and expanded infrastructure can ensure proper land-use in cities. Whether it's setting combating climate change, expanding housing, or even ensure that people can survive a disaster (like the COVID-19 pandemic), infrastructure becomes a critical, essential service that allows urban planners to plan, and people to live in cities now and into the future.