For the past half-century, our region has taken a simple stance toward San Francisco Bay: the less done the better. Stop new buildings, create a few parks, restore a patch of wetland here and there along the edge. Beyond that, leave things pretty much as they are.

But things are about to get a lot more complicated. And the next few years will determine whether or not we’re up to the task of rethinking our shorelines in the era of sea level rise.

An abundance of scientific studies say the bay’s average tide could climb as much as 66 inches by 2100 will need to make sure we have fresh accurate number, with most of the change coming in the decades after 2050 — an inexorable shift that endangers low-lying communities, airports and roadways as well as the fish and birds and wildlife that need tidal flats to survive. Add such ominous scenarios as heavy storms at high tide, and the projections translate to maps that show **much of our bayside land to be vulnerable to periodic inundation.** Where the San Mateo Bridge touches down on both sides, for instance. Large swaths of the island community of Alameda and all of San Francisco International Airport. Embarcadero Center and the green turf of AT&T Park.

And even if you don’t live along the shore, say officials, your life could feel the impacts.

everyone flushes toilets, but how do you flush if municipal water districts back up — everyone uses this analogy

The good news is, the region has a narrow but real window of time to prepare for what might lie ahead. In some areas the solution will involve marshes that double as environmentally friendly buffer zones. In others, where people already live and work close to the shore, smart development can help protect what’s behind it while also addressing other regional concerns, such as the lack of housing.

Not only that, right now there are genuine opportunities to reset the dial.

Within San Francisco, the port is in the midst of the first update to its waterfront planin nearly 20 years. The decisions to be made will affect 7.5 miles of shoreline, from ever-popular Fishermans Wharf to decrepit piers, swaths of little-used land and industrial zones far off the tourist map. The challenge is to push beyond the **hard-line positions that have** framed past waterfront debates, and create new connections to the water that we’ll be proud to hand off to the next generation.

At a regional level, residents of the nine counties surrounding the bay will vote in June on a $500 million parcel tax over 20 years that, if approved, could provide the resources to help pay for 30,000 acres of marsh restoration — an unprecedented step that has the potential to improve the health of the bay while adding waterfront trails and parkland that would help absorb the extremes of sea level rise, particularly in the north and south bays.

**emphatic quote here?**

It won’t be easy, since the political culture of the Bay Area is better at stopping things than taking big steps, with a focus on short-term symbolism rather than long-range planning.

Fortunately, we aren’t starting from scratch. The regional quest to **protect and replenish the bay** make the bay the literal as well as figurative centerpiece of Bay Area life has produced success stories both large and small. From diked farmland in the North Bay **turned back into salt marshes** reclaimed as salt marshes now teeming with life to San Francisco’s Embarcadero, where AT&T Park, the Ferry Building and the transformation of an unsafe warehouse at Pier 15 into the Exploratorium science museum has turned a dilapidated waterfront into one of the city’s most popular destinations.

Those triumphs show the potential that exists for positive change — and the time and expense that make such turnarounds too few and far between. San Francisco and the region need to set clear priorities and then make it possible for them to happen. Otherwise, the larger forces of nature might swamp our best intentions once and for all.

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San Francisco’s shoreline has never been static.

Shallow bays were filled with the remnants of ship hulls to create land in the years after the discovery of gold in 1849, as a ramshackle town became the West Coast’s largest city. Wooden piers lined the Embarcadero, were pulled down and rebuilt at larger scale. A steel mill sprouted at the foot of Potrero Hill and the US Navy pushed into the bay at Hunters Point to create a base that during World War II employed as many as 18,000 √people.

Then came the decline of the industrial waterfront and the erection of the Embarcadero Freeway and, in 1968, the transfer by the state of the Port of San Francisco and its 7.5 mile shoreline to the city and its residents. The civic priority ever since has been to preserve what’s left of the historic waterfront — not just piers but the remnants of the shipping and fishing industries — while adding walkways and public spaces.

This balancing act can be seen yet again as the port embarks **a makeover of** on the first-ever update of its waterfront land-use plan. That document dates back to 1997, spurred by a 1990 voter initiative that banned hotels on city piers and put a halt to non-maritime development until such a plan was approved.

Since then [more than $1.6 billion has been invested](http://www.sfchronicle.com/bayarea/place/article/Port-Time-to-change-future-of-S-F-waterfront-5682445.php) on port-owned land running from Fishermans Wharf south to India Basin, according to a 2014 study that proclaimed “San Francisco is more united with its waterfront than it has ever been,” with “industry, commerce and residential neighbors all existing in a harmony of contrasts.”

But accentuating the positive glosses over the strained reality of a waterfront where concrete companies do business in the shadow of long-idle gantry cranes, and where the seawall along the Embarcadero that separates the bay from the Financial District will require an estimated **TKT** million in repairs if it is to remain solid report coming out April 12. Development-wary neighbors, meanwhile, responded to such proposals as the Golden State Warriors’ wish to build an arena on piers south of the Bay Bridge with a successful 2014 ballot initiative that requires any change to height limits **within port boundaries** on port property to be okayed by city voters.

Taking a fresh look at the port’s future makes sense; the rebirth of the Embarcadero in the past 20 years has connected downtown to the bay like never before. There’s also a laudable effort to reach beyond the usual suspects, with a **TK**-member advisory committee that includes members from all 11 supervisorial districts√. But the initial target of completing a draft for the update this fall has faded, and no vote by the port commission now is likely before next **TKTKT**, if then.

These delays are in keeping for a city that’s great at studying complicated controversial topics, but not so great at moving from study to action — especially when the topic is one that isn’t accompanied by theatrical protests, a la the supposed connection between tech buses and gentrification, or rallies of people pressured by high housing prices.

The extent to which process dilutes urgency can be seen in the release in March√ of a 12-department “sea level rise action plan.” Mayor Lee deserves credit for launching the effort, but the document arrived five months later than promised. The main thrust? To map out how And the main thrust is mapping out how to devise specific strategies for adapting the city’s shoreline and infrastructure to the likelihood of rising tides and harsher storms — strategies that aren’t expected to be completed for at least another two years.

Similarly, San Francisco planners are eager to hold a regional “design challenge” to craft imaginative strategies for regional adaptation, an initiative along the lines of New York’s Rebuild by Design effort after 2012’s Hurricane Sandy. It was supposed to kick off last fall. Now, the target to get started is fall of 2016.

The thing is, the best way to prepare for a rising sea level’s slow-motion threats to infrastructure is to do so early. And in today’s Bay Area, that’s easier said than done.

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When community dignitaries and government officials gathered last October to watch an excavator claw a break in a levee along San Pablo Bay, the mood was exultant.

People cheered as water gushed through with fast-growing force, the start of an orchestrated flood that should turn 1,000 acres of long-diked ranchland near Highway 37 back into a tidal marsh thatrustles with cord grass, providing habitat for such endangered species as the salt marsh harvest mouse and the Ridgway’s rail, a hen-sized shorebird√.

**And even though the setting is the north edge of San Pablo Bay, their presence could help TKTKT (Note: I think this might best be left for the larger regional piece, though perhaps not. It gets kinda technical.**

With celebration came relief, and no wonder: 10 years hadpassed between the purchase of the former hay ranch by the Sonoma Land Trust and the breach of the levee. The $18 million to pay for the restoration came in grants from 12 different sources. The two years of work to ready the site — using bulldozers to shape mounds that will trap sediment and provide tidal ridges for plants to take root, for instance — came after seven years of environmental studies√.

The scene at Sears Point Ranch√ underscores the enormity of what lies ahead if we’re to create — or re-create — the 30,000 acres of wetlands that scientists say we need for the bay to absorb the worst impacts of sea level rise between now and 2100. By comparison, just 4,000 acres including Sears Point Ranch have been restored in the past 15 years.

For this to happen, the Bay Area must overcome a protective culture that favors local control over regional action and values time-consuming reviews over nimble planning efforts.

The last time a transformation of this sort occured was in 1965. That’s when the Bay Conservation and Development Commission was created in response to a grassroots crusade launched by three Berkeley women alarmed by the cavalier way that so many Bay Area cities and counties saw shallow waters as little more than development parcels, or convenient sites for their garbage dumps.

When it was established by the legislature, the BCDC’s mandate was straightforward: “Protection of the Bay as a great natural resource ... with a minimum of Bay filling. gilliam, between the devil and the deep blue bay, p. 131” The autonomous agency has jurisidiction over not only the bay, but also the 100-foot-deep band of shoreline along its edge. Any changes within that zone that aren’t for maritime purposes must include full public access. And by any measure, the agency has been successful: only **TKTK** acres of bay have been turned into land during the past half-century, and roughly **TKT** miles of shoreline now include trails or parks.

These days, the agency’s attention is also focused on the likelihood that the bay will increase, not decrease, in size.

As far back as 2007 the agency turned heads with highly publicized maps showing how our shorelines would be altered by a 55-inch rise in sea levels. Two years later it held a design competition that attracted 131 entries from 18 countries.

But when the agency sought to amend its Bay Plan to take climate change into account, the pushback was so severe that the changes finally approved in 2011 were modest. And one of its most important elements — a call for “a regional sea level rise adaptation strategy” — was never followed up on by other government agencies.

This year it’s trying to nudge things along in a different way, with a series of workshops to show local interest groups and decision-makers the complexity of dealing with a long-range challenge to how we all live interviewing them Tuesday, will make this short graf more meaty (though not any longer).

“We need to find better ways to work together more intelligently and effectively, and we must do that soon,” Zach Wasserman, who chairs the BCDC, told the Feb. 19 gathering of about 75 representatives from various municipalities, bureaucratic agencies and advocacy groups. But he also stressed there was no secret plan for a power grab: “We should not have one single authority or agency in control.”

Realistically, though, something of that sort is needed.

The Sears Point Ranch saga shows this well. There was no real opposition, yet it still required permits from seven county, state and federal agencies. The effort paid off — but only because a committed nonprofit with deep pockets could apply the pressure and the persistence to make the project happen.

If Prop. AA passes in June, the ongoing stream of money provided by voters will make it easier to cobble together funds. The legal thicket will remain, the overlap of regulators each passing judgement based on their own tightly focused checklist of issues.

“The complexity is a big part of why it takes so long,” said Letitia Grenier, a senior scientist with the San Francisco Estuary Institute√. “There are so many variables to pull together.”

That would be fine if time was not an issue. But it is. Scientists at the institute estimate that marshes require **roughly 20 years** to take root, mature and spread so that as the average tide rises, the plants can adapt and move inland (assuming there’s space to do this). The best scenario would include enough breached levees to spawn roughly 25,000 additional acres of diverse wetlands along the shore. In the next decade — almost a tenfold increase from the rate so far this century.

“The problem now is analagous to the effort to stop bayfill 50 years ago, but there’s a balkanization of authority,” said David Lewis, executive director of Save the Bay, the organization founded in 1961√ to, in a sense, reverse the political tide. “We need to change the way things happen so that decision-making is concentrated.”

**Here we need one scenario of what might be done. Hoping to get this from Will Travis, the former BCDC director, or SPUR or the current BCDC leadership. But probably presented in my words not theirs, since I’ll take their thoughts and frame them into something that I think makes sense.**

Reform of this sort isn’t nearly as easy as going into battle to stop something. The long-term implications, though, are likely to be far more profound.

“The scary thing is that honestly, we figured we had two generations or more to deal with this,” said Joshua Stevens, the lead scientist at the estuary institute. “We don’t. there isn’t that time.”

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Fifty years ago, the region’s big ecological question was how to “save” the bay. The challenge ahead is to accommodate its expansion, and to do so in a way that won’t put our human resources and our ecology at risk.

That’s because things today aren’t as simple as when Bay Area residents pressured their leaders to close shoreline garbage dumps and San Franciscans were faced with development schemes that included, believe it or not, a 1969√ proposal by Ford Motor Co. for a car dealership above the water from the Ferry Building past Howard Street√.

**Now, as Grenier said, it’s complex.**

There’s complexity in terms of the environmental pressures facing the bay from sea level rise, and complexity in the competing demands for what land is left along San Francisco’s waterfront. Complexity in the range of responses that will be required — some areas will need marshes, others might need walls — and complexity in the slow-moving regulatory processes that can ensnare even a project with widespread support.

Today’s Bay Area doesn’t handle complexity well — and that needs to change.

Within the city, planning for the port’s future and the larger infrastructure needs to have the reality of sea level rise at its core. This means getting beyond the notion that the waterfront as some nostalgic place apart, rather than the culmination of a robust city of more than 900,000 people.

As for the region, it’s time to reshape how regulatory decisions regarding the shoreline are made. Maybe there shouldn’t be a single agency telling other governments what to do. But if the approval processes can be consolidated when the topic is related to sea level rise, so things can move forward in predictable and orderly ways.

The fact is, San Francisco Bay is the body of water that defines our region more than any other natural feature. It survives as a compelling and environmentally rich feature because Bay Area residents took action in the 1960s. If we’re going to build on that foundation, figuratively, we need to break the mold again.

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