



ocean beach

master plan

public workshop #2

contents

	intro	welcome
		workshop goals
	project update	review workshop 1
		outcome: our “marching orders”
		since then
		seven focus areas
		evaluation criteria
	presentation	four “test scenarios”
		disclaimers
		intent
		ingredients
		structure
	activity	break-out session
	wrap-up	report back
		next steps

workshop goals

- ✓ **project update:** what have we been doing since our last workshop?
- ✓ **present “test scenarios”:** intent, ingredients, structure, disclaimers
- ✓ **break-out session:** discussion of “test scenarios”, define preferred direction, discussed evaluation criteria

project update



workshop 1 participation summary

1-day event (jan 15, 2011)

150+ signed-in

109 “invested” in priorities

59 filled questionnaires

additional input expected from
SPUR exhibit + other outreach



public input



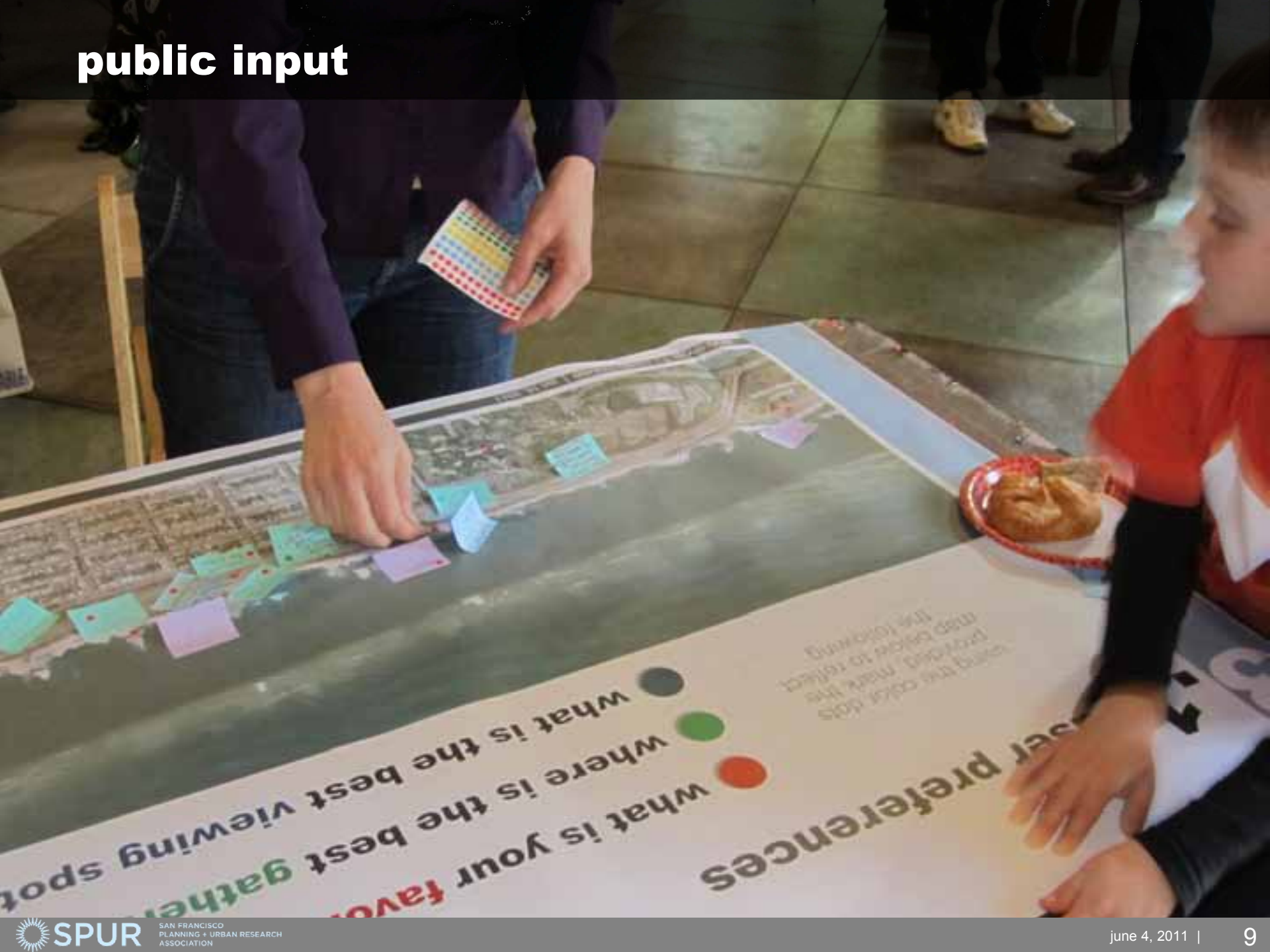
public input



public input



public input



Share your preferences
by placing the colored dots
on the map below to reflect
the following:

- what is your favorite
- where is the best gathering spot
- what is the best viewing spot

public input



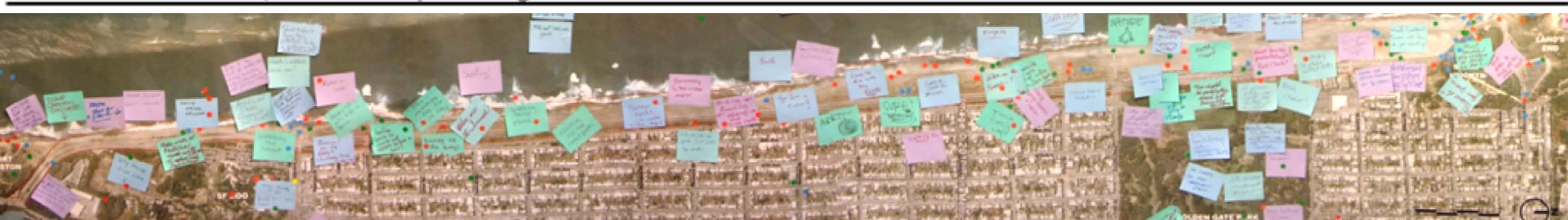
public input

image + character

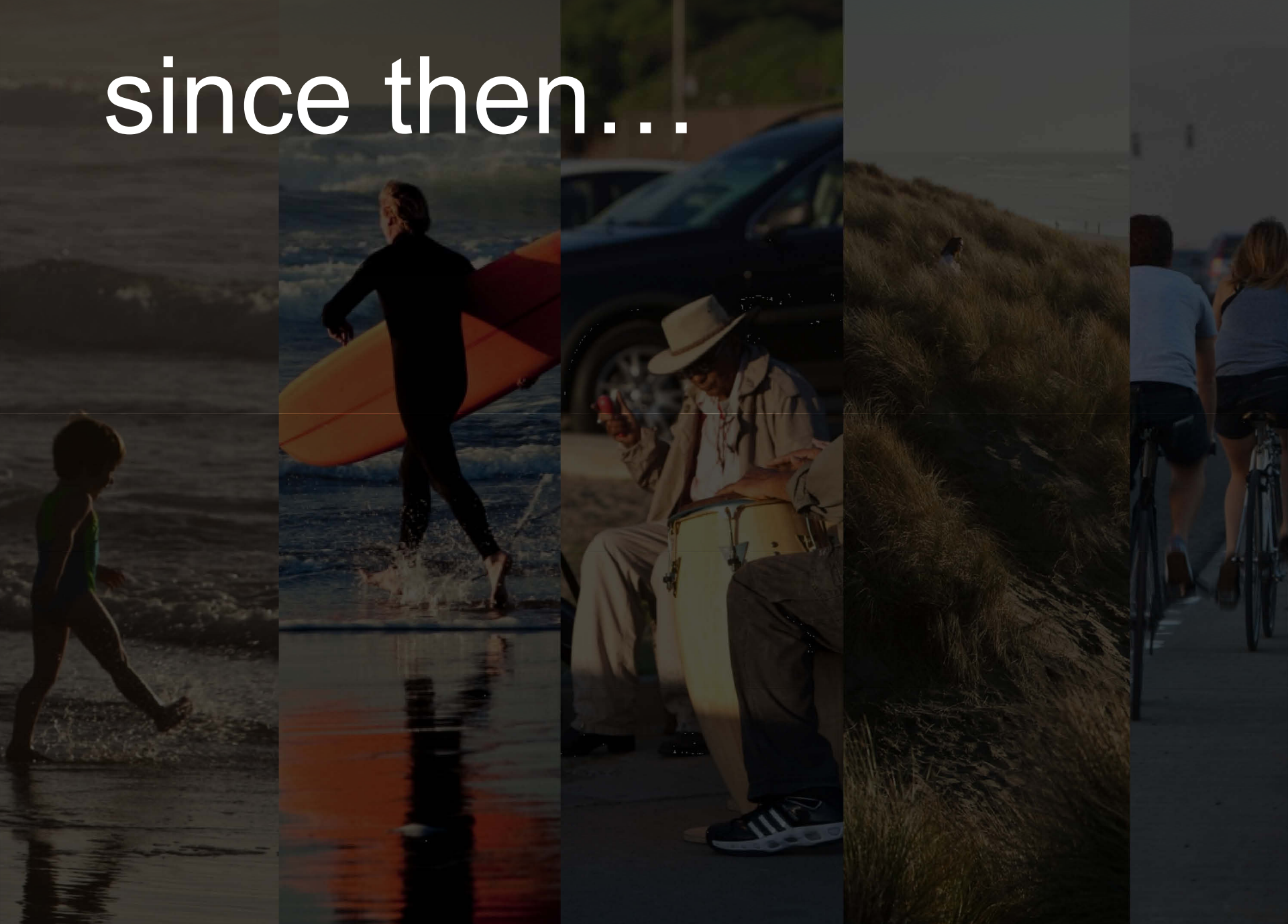
comment disagree somewhat agree agree additional comments

raw/open beauty


More Graffiti	1	1	4	Designated, organized graffiti/street art area
Great view opportunity north to Pt. Reyes			1	
Blend the beach environment with neighborhoods, zoo, etc. - no harsh edges			1	
Maintain natural coastline without changing the layout of the environment			1	
Keep Ocean Beach natural	1	1	4	Keep in mind that Ocean Beach is an urban space as well as a natural beach – unlike remote beaches it will never be a pristine environment.
Cultural and natural history of the site			1	
OB Can be a World Class Beach in a World Class City			1	
Need analysis on how the neighborhood and people connect emotionally, physically and ecologically to their backyard!			1	
Nice to have such a remote wild-feeling place near the city			4	
Keep GGP natural			1	
too many scary vagrants in the morning	2		1	Need more amenities [unreadable] + homeless, homeless people have always been part of the neighborhood and were tolerated/accepted.
No dramatic change, improvements & restoration only			3	
Concern about wilderness/ culture of the place being lost			1	



since then....



confirmed **overall vision statement**



**“to knit the unique assets and experiences of ocean beach
into a seamless and welcoming public landscape, planning for
recreation, environmental conservation, sustainable
infrastructure, and long-term stewardship”**

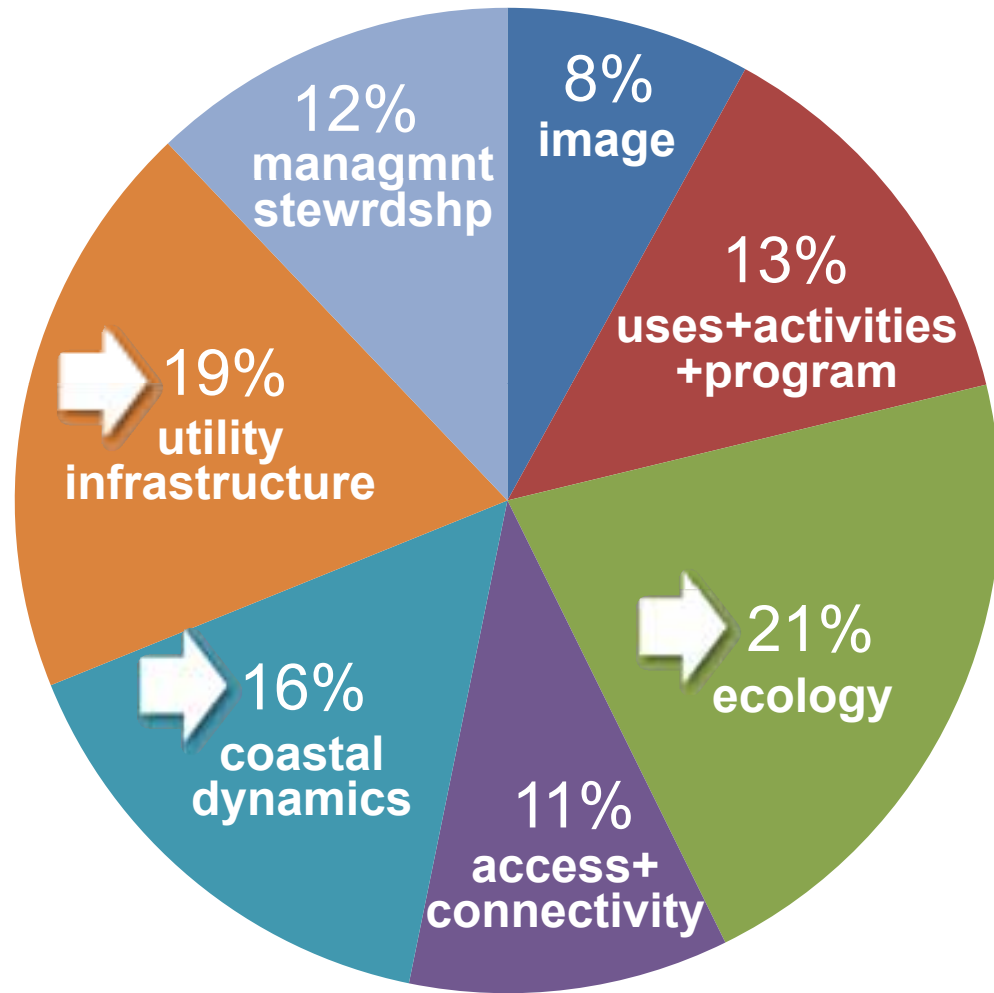
prioritized **7 focus areas**

- ✓ ecology
- ✓ utility infrastructure
- ✓ coastal dynamics
- ✓ access + connectivity
- ✓ image / character / culture
- ✓ uses / activities / program
- ✓ management + stewardship



prioritized **focus areas : setting the foundation**

- ✓ ecology
- ✓ utility infrastructure
- ✓ coastal dynamics
- ✓ access + connectivity
- ✓ image / character / culture
- ✓ uses / activities / program
- ✓ management + stewardship



“investment” exercise results

refined **aspirations**

✓ **ecology**

restore and establish conditions that support thriving biological communities

✓ **utility infrastructure**

evaluate utility plans and needs in light of coastal hazards and uncertainties, and pursue a smart, sustainable approach

✓ **coastal dynamics**

identify a proactive approach to coastal management, in the service of desired outcomes

✓ **access + connectivity**

provide seamless and fluid connections to adjacent open spaces, the city, and the region

✓ **image / character / culture**

preserve and celebrate the beach's raw and open beauty, while welcoming a broader public

✓ **uses / activities / program**

accommodate the diverse activities people enjoy at the beach, managed for positive coexistence

✓ **management + stewardship**

provide an approach to long-term stewardship across agencies, properties, and jurisdictions























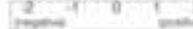




defined **evaluation criteria**

purpose + function

- ✓ **basis for evaluating “test scenarios” and later the draft and final master plan**
- ✓ **based on public input, planning advisory committee (PAC), steering committee**

evaluation criteria

To knit the unique assets and experiences of ocean beach into a seamless and welcoming public landscape, planning for recreation, environmental conservation, sustainable infrastructure, and long-term stewardship.

focus areas: setting the foundation			focus areas: place-making			focus area*
ecology	coastal dynamics	utility infrastructure	access + connectivity	image + character	uses + activities + program	management + stewardship
						
Restore and establish conditions that support thriving biological communities.	Identify a proactive approach to coastal management, in the service of desired outcomes.	Evaluate utility plans and needs in light of coastal hazards and uncertainties, and pursue a smart, sustainable approach.	Provide seamless and fluid connections to adjacent open spaces, the city, and the region.	Preserve and celebrate the beach's raw and open beauty, while welcoming a broader public.	Accommodate the diverse activities people enjoy at the beach, managed for positive coexistence.	Provide an approach to long-term stewardship across agencies, properties, and jurisdictions.
1. Biodiversity & ecological functions (on land, water, and intertidal zones) 	1. Adaptable and effective responses to erosion, storm surges and sea-level rise 	1. Water quality management (stormwater, wastewater, combined-sewer overflows) 	1. Pedestrian and bicycle circulation along north-south corridors 	1. Image of Ocean Beach 	1. Activities and amenities 	1. Day to day management and maintenance 2. Ability for agencies to work cooperatively 3. Funding in support of the vision <i>*Not part of scenario evaluation for June 4th Workshop. Management Strategies to be developed for Draft Masterplan at which point PMG/Community will have opportunity to evaluate.</i>
2. Habitat for key species (plover, bank swallows) 	2. Requirement for on-going interventions 	2. Flooding prevention (stormwater run-off) 	2. Pedestrian & bike connections to adjacent open spaces, streets & transit network 	2. Natural feel and experience of the beach (dunes, wildlife, surf...) 	2. Surf conditions 	
3. Ecological connectivity 	3. Impact to other focus areas 	3. Management of the investment in core utility facilities (treatment plant, transport box, Lake Merced tunnel...) 	3. Traffic flow and parking system 	3. Experience and character of the urban edge along Ocean Beach 	3. Compatibility of uses 	

Public Workshop 2 - Overview June 4, 2011

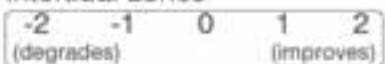
Planning Process Overview

ecology

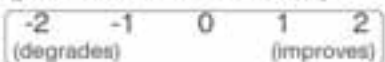


Restore and establish conditions that support thriving biological communities.

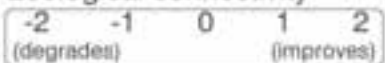
1. Biodiversity & ecological functions on land, water, and intertidal zones



2. Habitat for key species (plovers, bank swallows)



3. Ecological connectivity

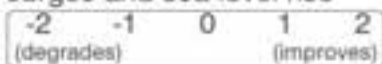


coastal dynamics

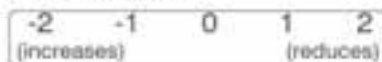


Identify a proactive approach to coastal management, in the service of desired outcomes.

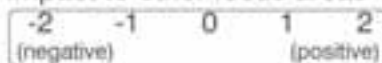
1. Adaptable and effective response to erosion, storm surges and sea-level rise



2. Requirement for on-going interventions



3. Impact to other focus areas

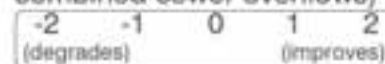


utility infrastructure



Evaluate utility plans and needs in light of coastal hazards and uncertainties, and pursue a smart, sustainable approach.

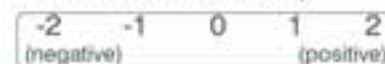
1. Water quality management (stormwater, wastewater, combined-sewer overflows)



2. Flooding prevention (stormwater run-off)



3. Management of the investment in core utility facilities (treatment plant, transport box, Lake Merced tunnel...)





site understanding

- ✓ **OB coastal dynamics : the littoral cell**
- ✓ **SF westside combined sewer system**



AECOM
Google

✓ OB coastal dynamics : the littoral cell

SF Westside Combined Sewer System

✓ SF westside combined sewer system

set out to test...



...a wide range of possibilities

...in four “test” scenarios



presentation

“test scenarios”

intent

- ✓ explore as many of the ideas suggested by all
- ✓ organize technical work
- ✓ lay out ingredients and tradeoffs that will inform the direction



“test scenarios”

disclaimers

- ✓ “test scenarios”, NOT proposals
- ✓ none are the right answer : evaluations reveal strengths and weaknesses in different areas
- ✓ based on shorthand calculations by technical team, not the final word
- ✓ VERY complex challenge : *please bear with us!*



“test scenarios”

ingredients

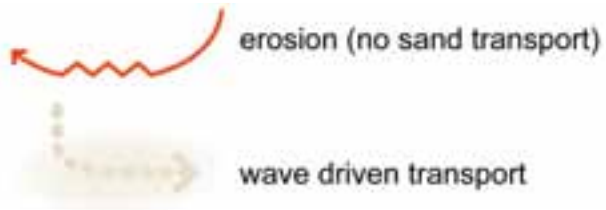
- ✓ existing conditions
- ✓ ongoing processes
- ✓ actions / management / new elements








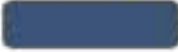



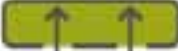



















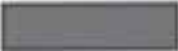


ingredients : **existing conditions**

	beach
	open space
	city
	parking
	road
	lake merced
	sewer / stormwater infrastructure
	seawall
	revetments
	westside transport box
	lake merced tunnel
	outfall structure
	historic building
	dunes
	current shoreline
	residential / private property
	coastal hazard zone (stormsurge flooding)

ingredients : **ongoing processes**



ingredients : **actions / management / new elements**

	road realignment		tree wind break
	muni improvements		green building (green roof / rainwater harvesting / solarpanels)
	ped / bike trail		lake merced reconfiguration
	fenced boardwalk		constructed wetland
	intersection improvement		zoo / park reconfiguration
	pedestrian connection improved		habitat wetland restoration
	street programs / events		park - bioretention
	major new building attraction		habitat protection area
	amenities (restrooms, showers, concessions)		stormwater pumping in low areas
	pipe structural reinforcement		bluff restoration
	structural reinforcement / seawall		native dune restoration
	lake merced tunnel relocated		dune enhancement / revegetation
	new pump station		beach nourishment
	artificial reef		new revetments
	offshore breakwater		new parking
	streetscape low-impact design		
	directed stormwater		

scenario ingredients

✓ **armoring**

revetments, seawall, artificial reefs, breakwaters

(+) protects existing infrastructure

(-) potential for beach / habitat loss

(-) aesthetics / character





scenario ingredients

✓ beach nourishment

PAST : placement of
excess/byproduct sand,
nearshore placement

POTENTIAL : direct placement,
250-300K cu yd/yr

(+) buys time, aesthetic
improvements

(-) limits to protection, doesn't
guarantee a beach

(-) ongoing management required

scenario ingredients

✓ **managed retreat**

abandon or relocate threatened features according to defined triggers

(+) allows natural process to proceed

(-) cost / feasibility of relocation

(-) loss of private property / recreational areas / some habitat



scenario ingredients

✓ **climate change**
sea level rise (SLR)
+ erosion

7" by 2030
14" by 2050
55" by 2100

(-) erosion will worsen, causing
shore recession throughout

(-) storm surges may worsen



scenario ingredients

✓ **climate change**
changes in precipitation

uncertain

(-) possibly significant increase in typical precipitation

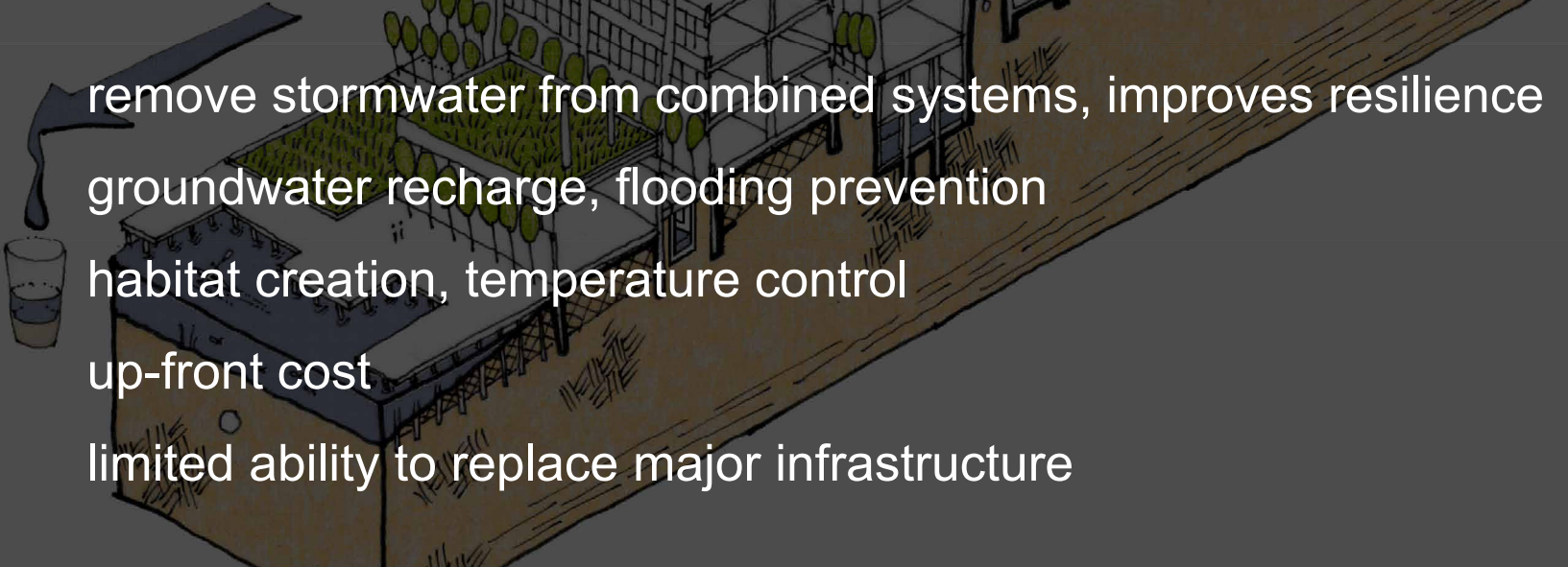
(-) potential negative water quality implications

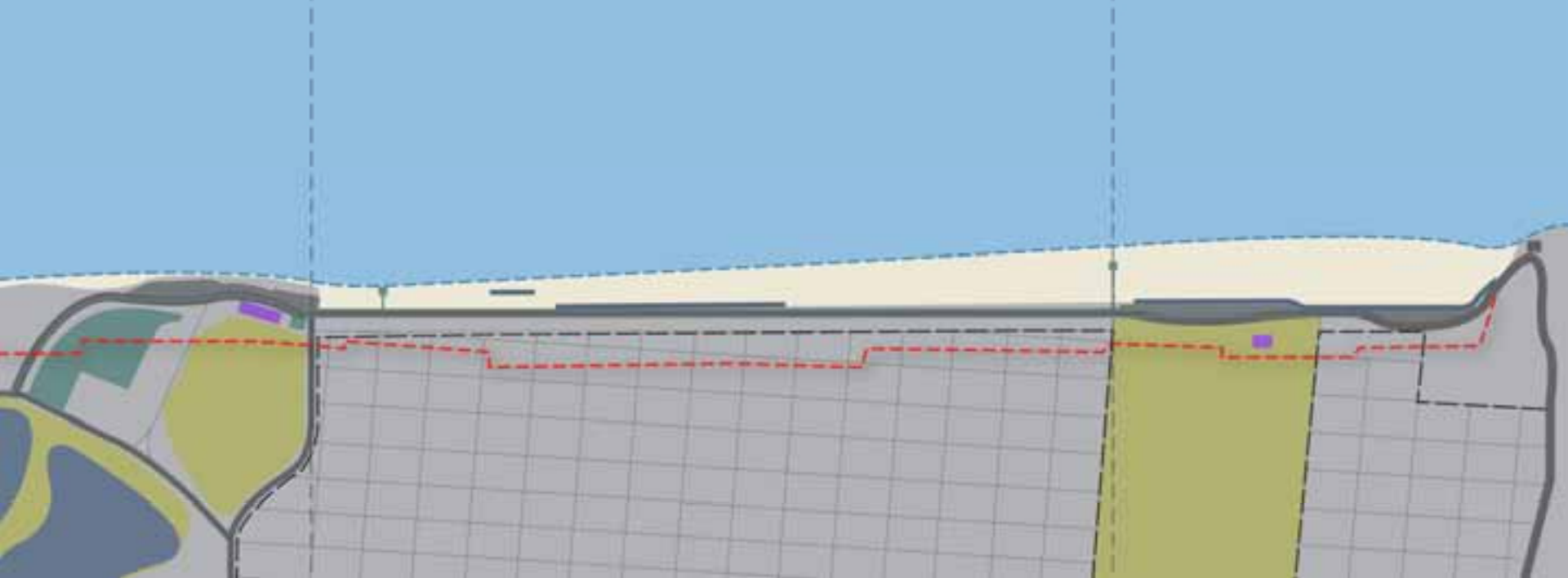
scenario ingredients

✓ **LID**

low impact design

design elements (green roofs, rainwater harvesting, permeable paving, swales and infiltration systems, creek restoration) that restore watersheds to improve stormwater, groundwater, flooding, and ecological performance

- 
- (+) remove stormwater from combined systems, improves resilience
 - (+) groundwater recharge, flooding prevention
 - (+) habitat creation, temperature control
 - (-) up-front cost
 - (-) limited ability to replace major infrastructure



scenario ingredients

✓ coastal hazard zone (year 2100)

“place-holder” line based on the
Pacific Institute’s 2009 SLR study

used in the “test scenarios” to
define potential zone of retreat



scenario ingredients

✓ **land acquisition** (year 2100)

to maintain a wide beach and
allow the development of
natural dunes, private homes
would need to be acquired

(+) allows natural coastal processes
to proceed

(-) loss of private property

scenario ingredients

✓ habitat restoration

dunes

re-vegetation of existing dunes,
or comprehensively restoring
them to native form

bluffs

removal of armoring, allow
natural erosion to continue

lake merced

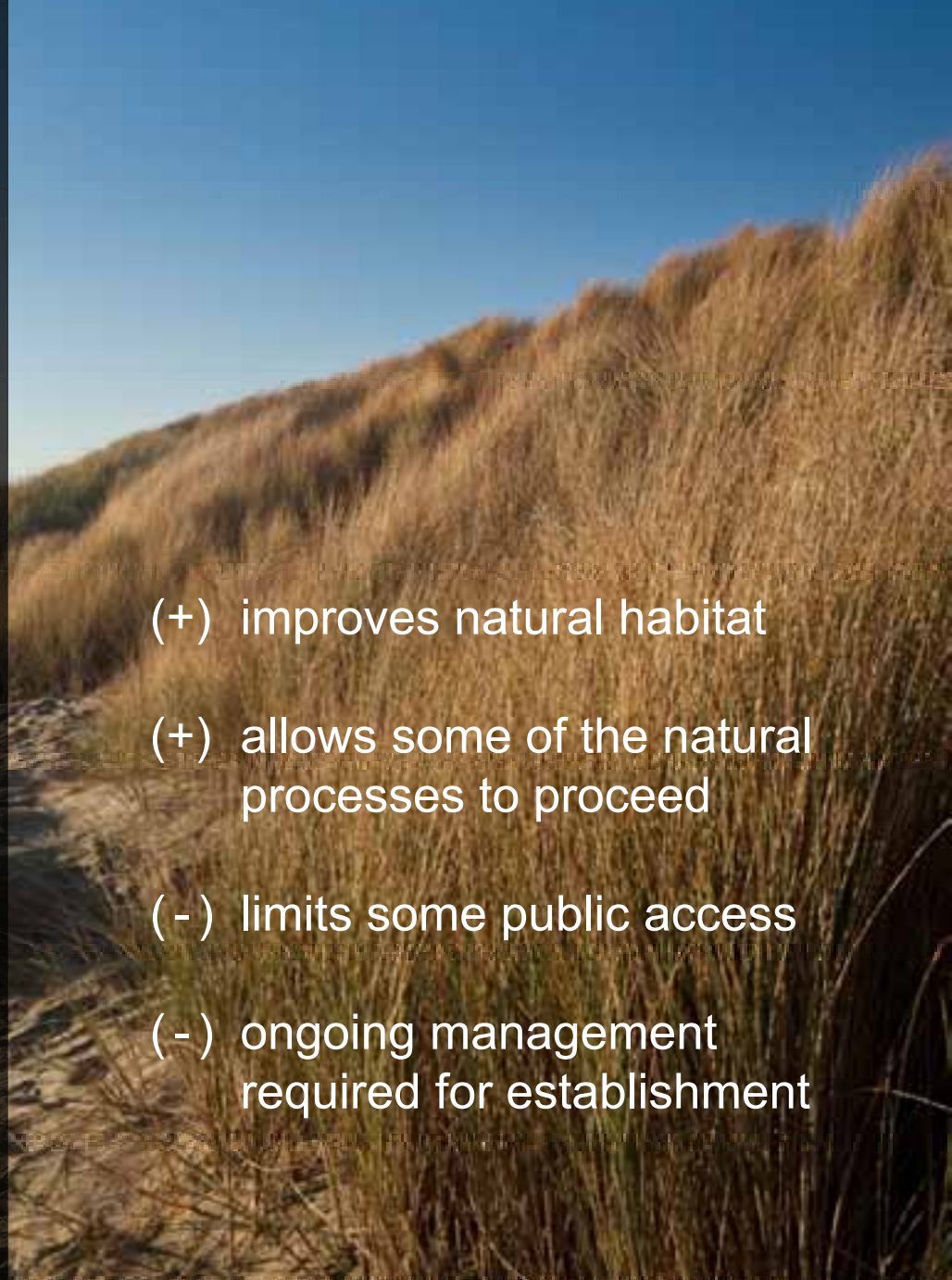
new habitat form by providing
hydrological connection,
continuous linkages

(+) improves natural habitat

(+) allows some of the natural
processes to proceed

(-) limits some public access

(-) ongoing management
required for establishment



“test scenarios”

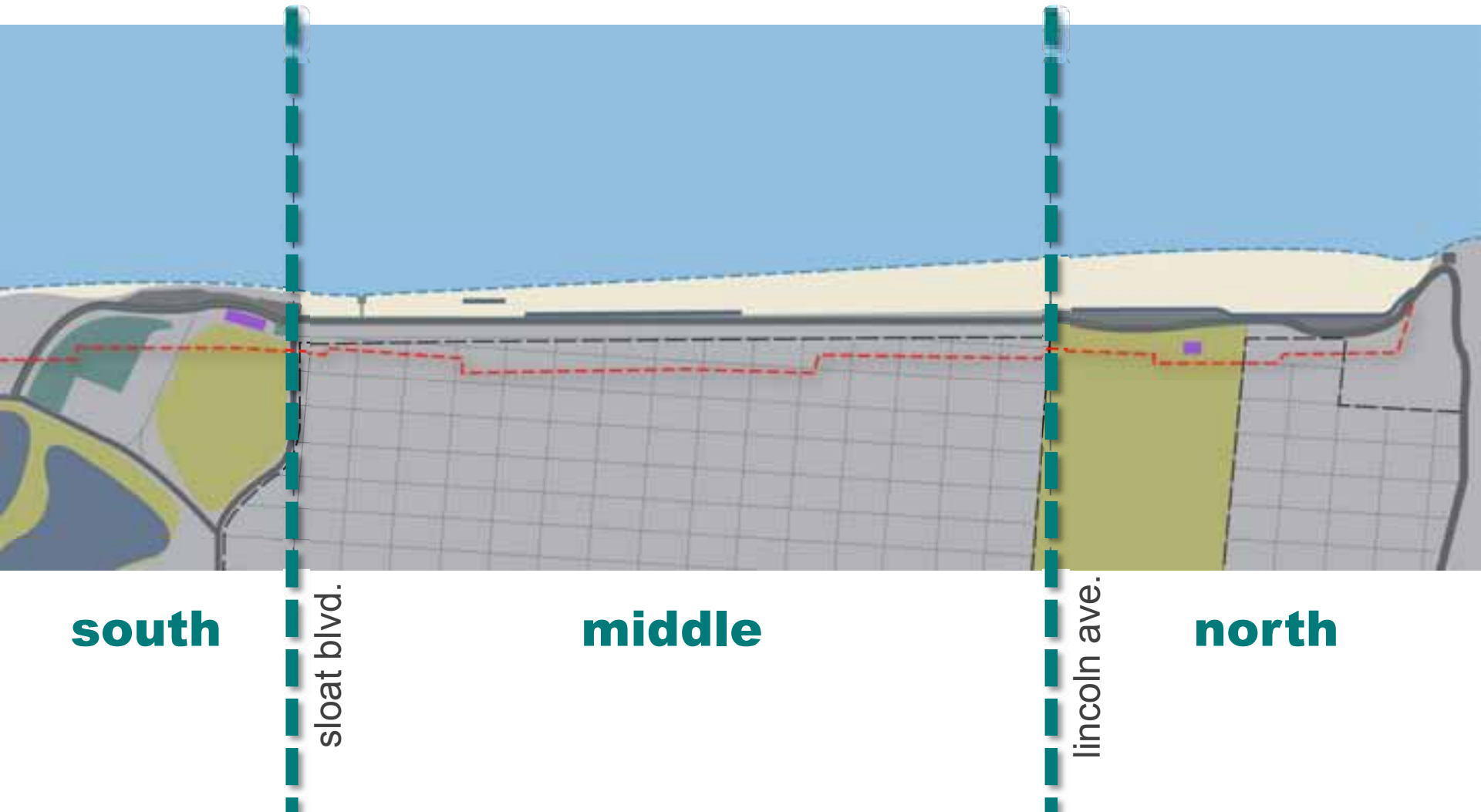
structure

- ✓ three (3) reaches : north, middle, south
- ✓ four (4) time points : SLR triggers
- ✓ four (4) test scenarios : maximum



“test scenarios”

three (3) reaches



“test scenarios”

four (4) time points

period 1 : **0 to +5 years**

2010 - 2015

period 2 : **+5 to +20 years**

2015 - 2030

SLR = 7”

period 3 : **+20 to +40 years**

2030 - 2050

SLR = 14”

period 4 : **+40 to +90 years**

2050 - 2100

SLR = 55”

“test scenarios”

four (4) maximum scenarios

A

maximum
habitat

B

maximum
recreation

C

maximum
‘green’
infrastructure

D

maximum
infrastructure

each “test scenario” is driven by a *single priority*
(priorities came from public, PAC, and agencies)

emphasis is on foundation-setting focus areas
(ecology, utility infrastructure, coastal dynamics)

“test scenarios”

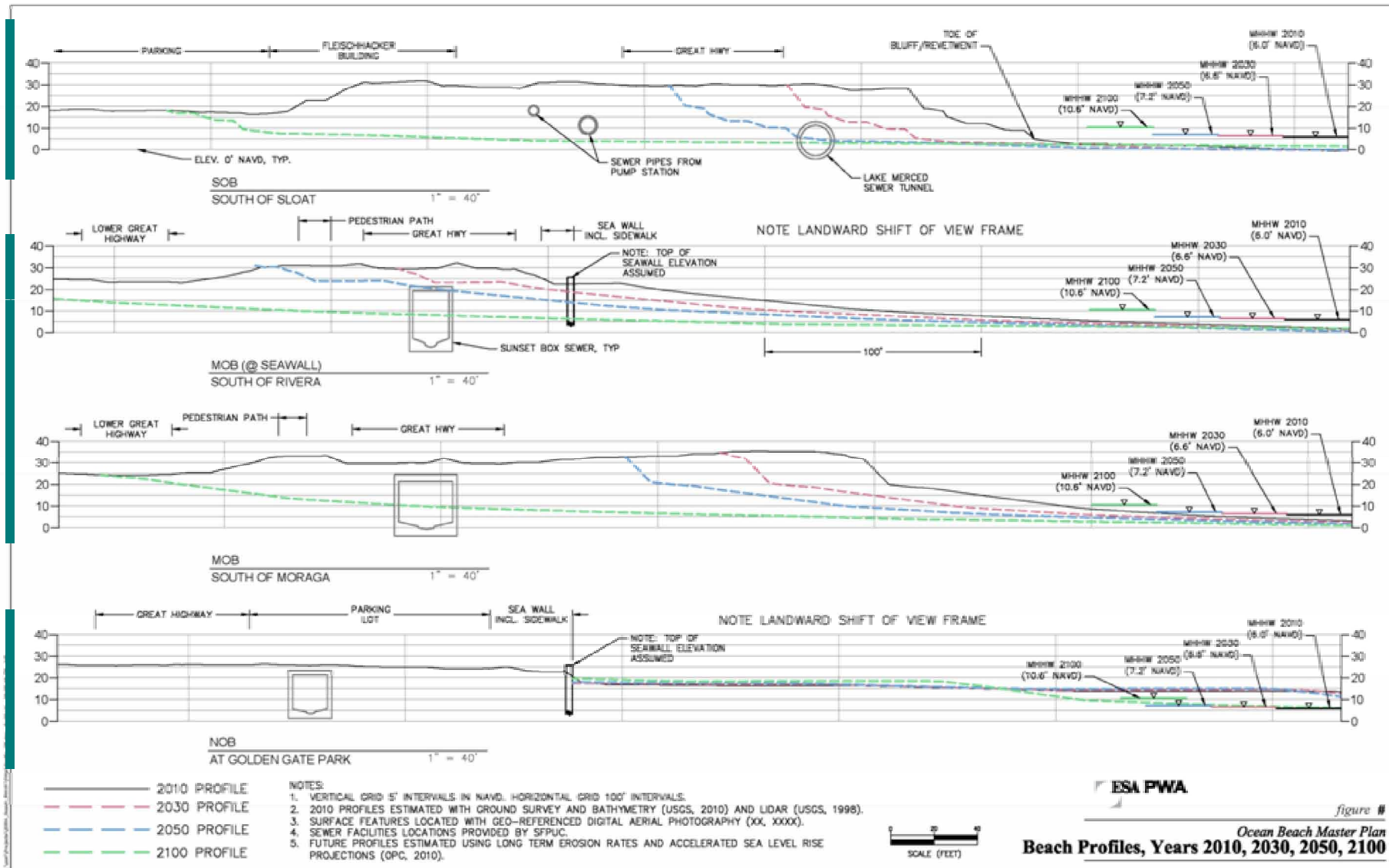
process

- ✓ defined priorities :
“why’s?”
- ✓ selected actions / ingredients :
“how’s?”
- ✓ tested and modeled outcomes
 - ✓ physical process modeling
 - ✓ benefit-cost analysis (ongoing)



tested **each scenario**

south
middle
north



“test scenarios”

why?

- ✓ to increase biodiversity and ecological function at ocean beach
- ✓ to allow natural coastal processes to proceed

A

maximum
habitat

how?

maximize habitat restoration and
comprehensive managed retreat

for exploratory purposes – NOT a proposal

revetments
reduced

hazard
coastal zone
refined

south

middle

north

0 to +5 years [2015]

A1 maximum habitat

for exploratory purposes – NOT a proposal

revetments
removed

tunnel temp
reinforcement

dune
restoration
begins

zoo expands

identify
property in
hazard zone

windbreak
planting
introduced

south

middle

north

+5 to +20 years [2030 = SLR +7"]

A2 maximum habitat

for exploratory purposes – NOT a proposal

bluff restoration

dune
restoration
continues

dunes
cover
seawall

zoo expands

acquisition of
property begins

great
highway
re-routed

great
highway
re-routed

south

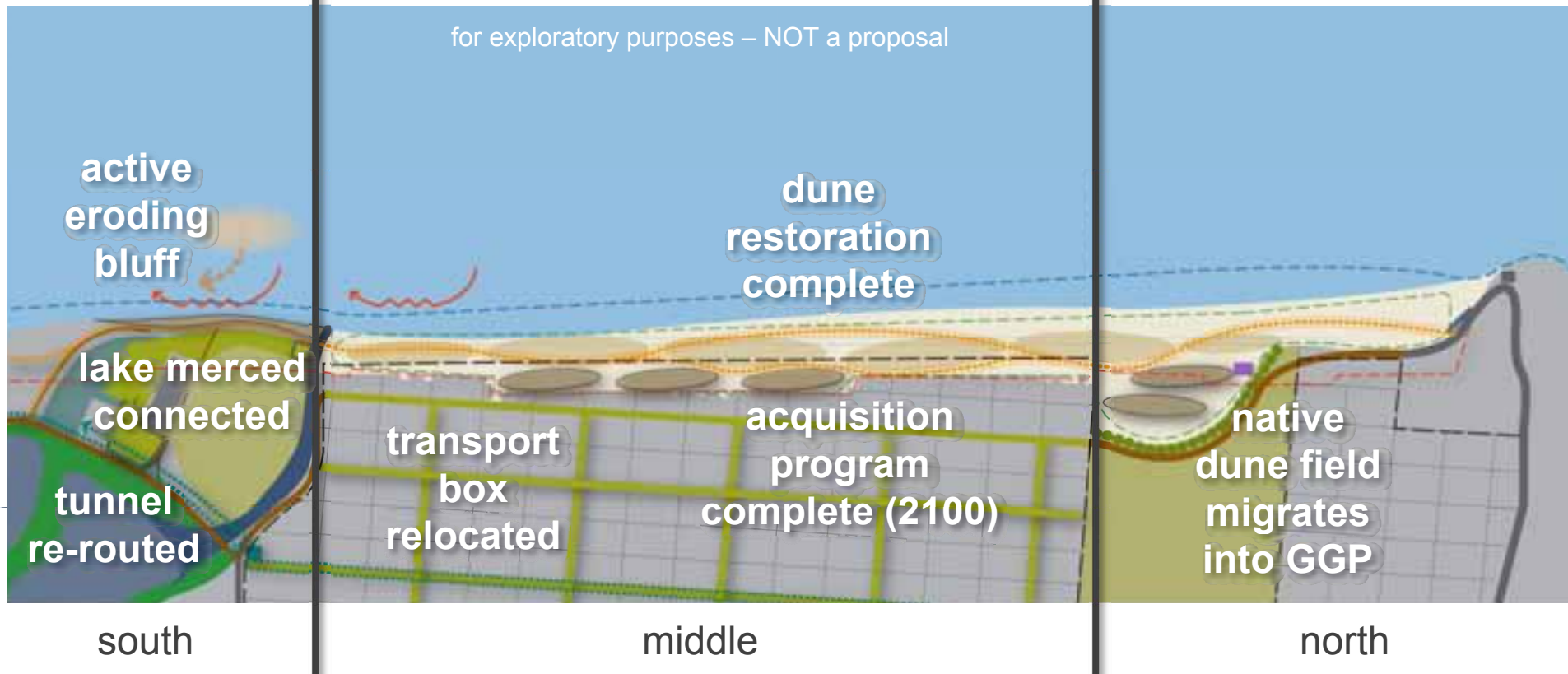
middle

north

+20 to +40 years [2050 = SLR +14"]

A3 maximum habitat

for exploratory purposes – NOT a proposal



+40 to +90 years [2100 = SLR +55"]

A4 maximum habitat

four “test scenarios”

why?

B

maximum
recreation

- ✓ to offer a great experience for the broadest spectrum of visitors
- ✓ to celebrate and embrace the many facets of ocean beach

how?

protect and enhance the natural character of ob while providing visitor amenities

for exploratory purposes – NOT a proposal

revetments
reduced

south

middle

north

0 to +5 years [2015]

B1 maximum recreation

for exploratory purposes – NOT a proposal

revetments
removed,
tunnel
reinforced

sand
placement

sand dunes improved

fleischhacker
poolhouse
restoration
begins

south great hwy
re-routed

great hwy
narrowed
for promenade
+ amenities

park
extension
replaces
parking

south

middle

north

+5 to +20 years [2030 = SLR +7"]

B2 maximum recreation

for exploratory purposes – NOT a proposal

bluff
restoration

sand
placement

sand dunes added

attractions
+ amenities

fleishhacker
poolhouse
restored

more city
connectivity +
amenities

great hwy
re-routed

south

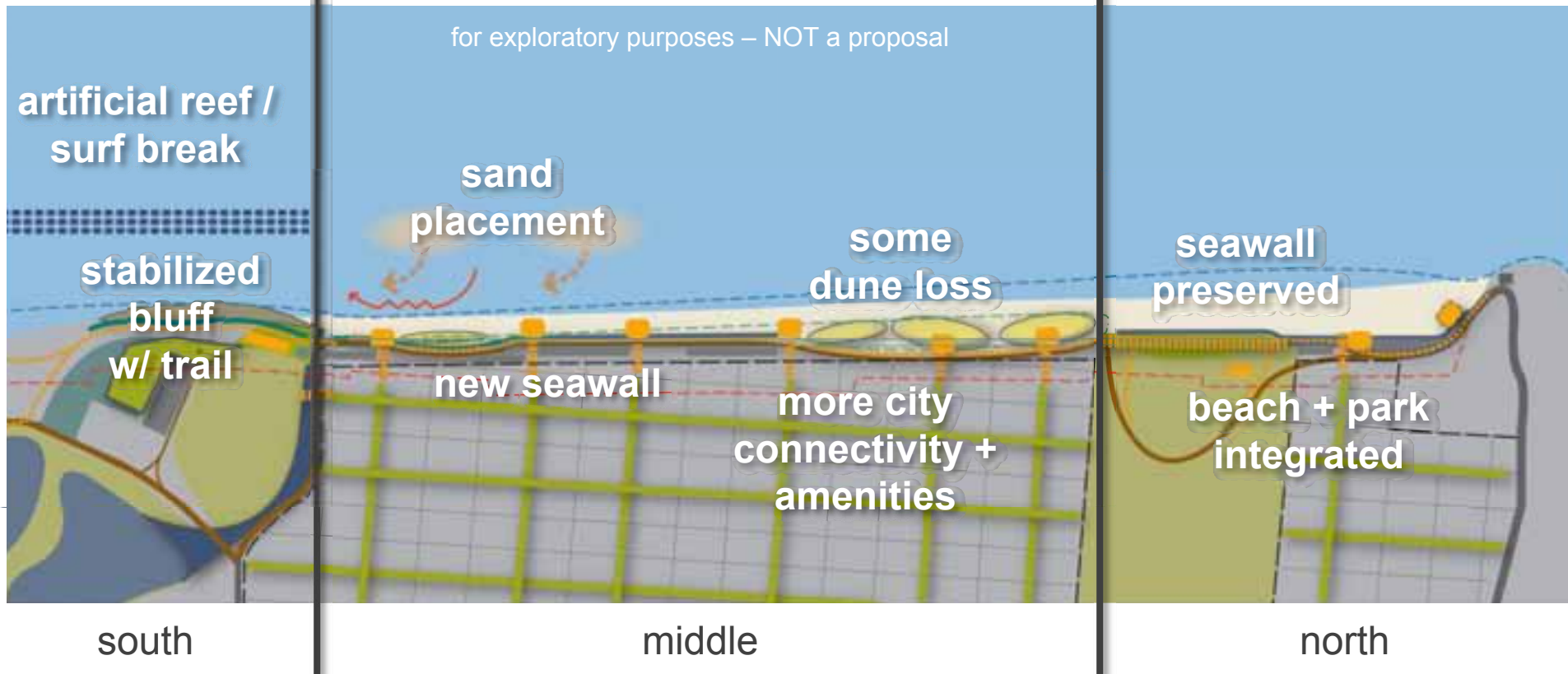
middle

north

+20 to +40 years [2050 = SLR +14"]

B3 maximum recreation

for exploratory purposes – NOT a proposal



+40 to +90 years [2100 = SLR +55"]

B4 maximum recreation

four “test scenarios”

why?

C

maximum
'green'
infrastructure

- ✓ to provide a more resilient, sustainable wastewater / stormwater system
- ✓ to support the health and function of the watershed

how?

implement green infrastructure to replace existing infrastructure

for exploratory purposes – NOT a proposal

revetments
reduced

LID pilot
projects

south

middle

north

0 to +5 years [2015]

C1 max 'green' infrastructure

revetments
removed

for exploratory purposes – NOT a proposal

tunnel temp
reinforcement

lake merced
wetland
restoration

LID projects
streets + private properties

south

middle

north

+5 to +20 years [2030 = SLR +7"]

C2 max 'green' infrastructure

for exploratory purposes – NOT a proposal

bluff restoration

lake merced
ready for
catchment

stormwater
directed to
lake merced

LID projects
streets + private properties continue

bio-retention
park

south

middle

north

+20 to +40 years [2050 = SLR +14"]

C3 max 'green' infrastructure

for exploratory purposes – NOT a proposal

potential removal of outfalls

new seawall

tunnel
re-routed,
reduced

detention wetlands
manage flooding

LID is the city standard

lake merced
wetland outlet

south

middle

north

+40 to +90 years [2100 = SLR +55"]

C4 max 'green' infrastructure

four “test scenarios”

why?

- ✓ to protect rate-payer investment
- ✓ to maintain water quality protection and prevent flooding

D

maximum
infrastructure

how?

protect existing infrastructure

for exploratory purposes – NOT a proposal

emergency
armoring
continues

sand
placement
begins

south

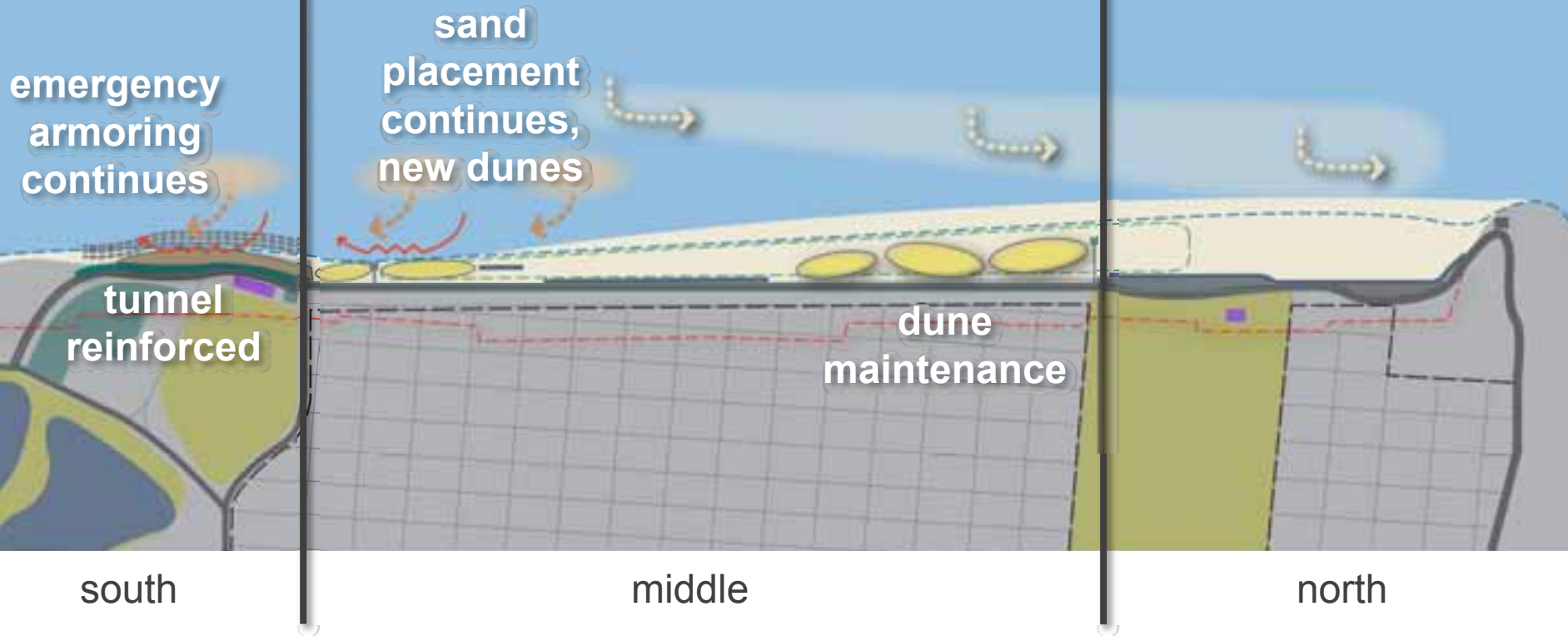
middle

north

0 to +5 years [2015]

D1 maximum infrastructure

for exploratory purposes – NOT a proposal



+5 to +20 years [2030 = SLR +7"]

D2 maximum infrastructure

for exploratory purposes – NOT a proposal

bluff
restoration

sand
placement
continues

tunnel
reinforced

dune
maintenance

south

middle

north

+20 to +40 years [2050 = SLR +14"]

D3 maximum infrastructure

for exploratory purposes – NOT a proposal

breakwater
built

sand
placement
discontinued

no beach (so.)

great hwy raised, waterfront promenade

pumping
mitigates
flooding

south

middle

north

+40 to +90 years [2100 = SLR +55"]

D4 maximum infrastructure

...your input activity



- ✓ first, find your table with the letter on your nametag
- ✓ **goal** : discuss the opportunities at ob by creating your own hybrid/composite “test scenario”
- ✓ **task 1** : work together to create a “test scenario”:
 - ✓ “flip” between the 3 different reaches of all 4 scenarios to create your own
 - ✓ use additional puzzle pieces to help complete the group scenario
- ✓ **task 2** : report back:
 - ✓ the (5) key elements of your proposed “test scenario”

activity



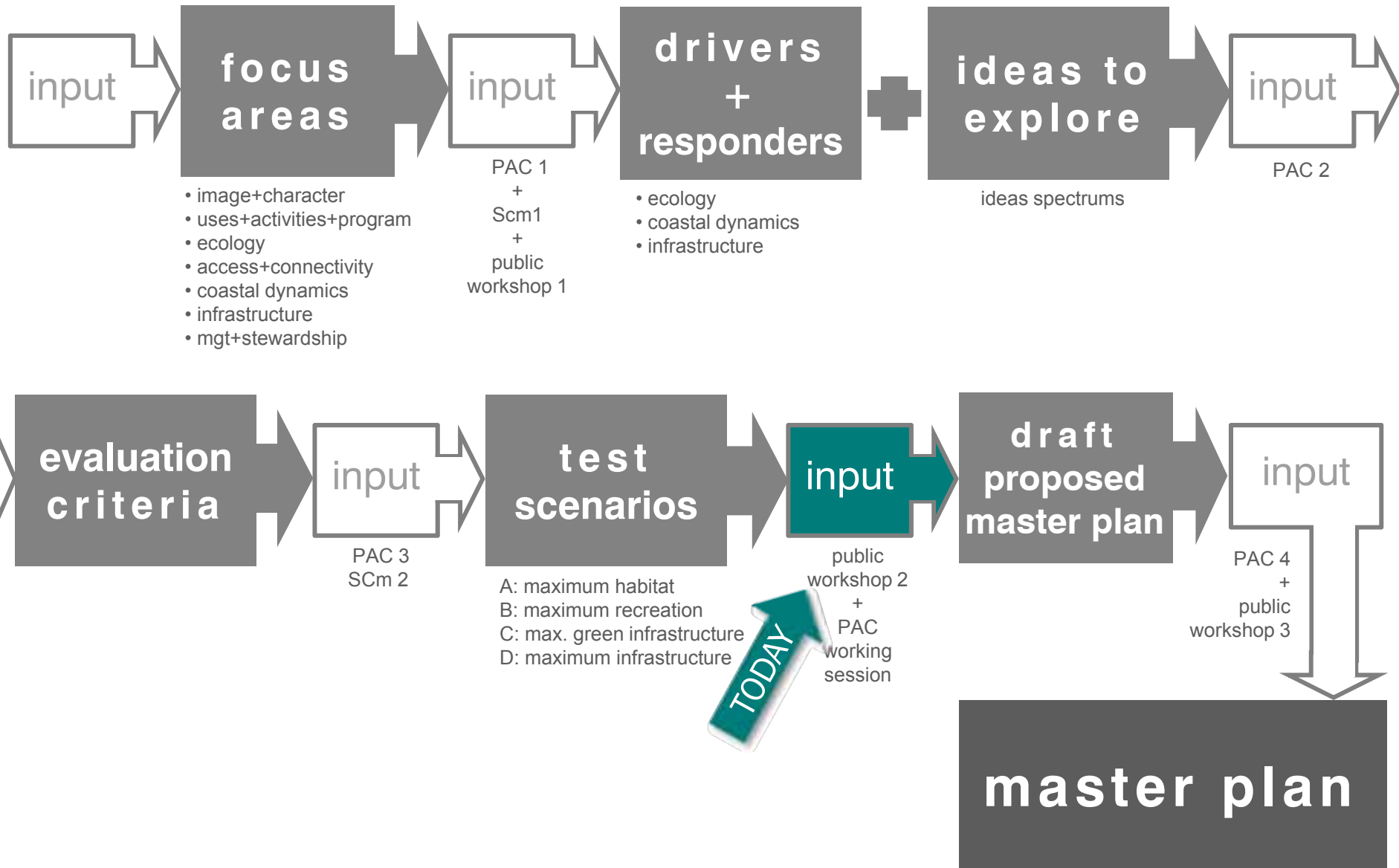


...report back



wrap-up

OB master plan process + next steps



next public meeting: october, 2011

questions / comments / suggestions?
email oceanbeach@spur.org