

San Francisco Bay Conservation & Development Commission

PUBLIC ACCESS

When to Limit or Not to Limit—That is the Question

Shivani Raina
shivaniraina@berkeley.edu

Introduction

“Almost every day, many of the people who live in the Bay region see the Bay. Whether from their homes, their places of work, or their travels in between, they can enjoy the visual magic and majesty of the Bay; they can watch the Bay being protected.”

BCDC Public Access Guidelines 2005

The San Francisco Bay Conservation & Development Commission (BCDC) requires that maximum feasible public access be provided in all developments along the Bay. Public access to and along the shoreline of the Bay is vital to waterfront development and usually comprises of pedestrian pathways, plazas, parks, and multi-use trails. Since the Bay is a public amenity, its access needs to balance a variety of uses and be equitable. At times, the use of the permit condition for ‘Reasonable Rules and Restrictions (RRR)’ is necessary to correct substantiated problematic behaviors within public access areas. Since public access is a condition of a permit, BCDC strives to maintain the access as intended in the permit, which typically means open to the public 24 hours a day, 7 days a week. As such, the remedy of issues through design and management solutions prior to limiting or restricting access is recommended since such a limitation is an effective reduction in the permit’s definition of maximum feasible public access.¹

After permit issuance, permittees may seek to limit access due to a variety of reasons, most often for security or safety concerns such as vandalism, theft, other crimes, and the occasional encampment. This paper discusses the nuances of public access and considers common reasons why a permittee might want to limit access. It then recommends strategies that can be adopted at different stages of development to either prevent such problems from coming up in the future or remedy them retro-actively without having to limit or restrict access. The paper also highlights a few cases in which limiting or regulating public access is necessary for safety and security reasons. Since this paper outlines strategies that may be used both at the design stage and after the development is operational, it is useful for permittees who are still in the planning stage as well as permittees who may be considering applying for RRR after permit issuance.

1.0 Defining Public Access

1.1 What is public access?

Public access is required by BCDC as a condition of approval for most permits, particularly for shoreline development projects. As outlined by the McAteer-Petris Act, every proposed development needs to provide "maximum feasible public access, consistent with a proposed project. "Public access" includes both physical and visual access to and along the shoreline of the Bay. Physical access may be provided in the form of waterfront promenades, trails, plazas, parks, parking spaces etc, while visual access may be enabled through site planning and building design. As a condition of approval, public access areas are required to be legally dedicated to a public agency as open space or otherwise permanently guaranteed for public use.

For the rare projects that are unable to provide on-site public access, in-lieu public access must be provided. In some instances, a compromise of limited access could also be negotiated on-site when problematic uses are not present. Examples of this include access to a wharf when boat berthing is not active, or access to open space when hunting is out of season.

1.2 Why is public access important?

“(The) Bay is an irreplaceable gift of nature that man can either abuse and ultimately destroy-or improve and protect for future generations.”

BCDC Public Access Guidelines 2005

¹ 73 permits seeking reasonable rules and restrictions on public access have already been issued by BCDC for various developments in the Bay Area.

Before the creation of BCDC, a few disjointed segments of the Bay shoreline were open to public access.³ Hidden from public view and beyond public reach, its shoreline was covered in garbage dumps and reserved for commercial maritime activity. By expanding public access, BCDC drew attention to the Bay and helped reimagine its shoreline as a national treasure. Soon, garbage dumps transformed into parks and post-industrial waterfronts became vibrant public spaces dotted with restaurants, shops and residences. Enabling public access has thus proven to be fundamental to both the protection and the enjoyment of the Bay.

Beyond protecting the Bay, public access simultaneously serves myriad functions and needs. Public access is crucial for fostering community, promoting health and enabling democracy.² Historically, urban reformers, city planners, and municipal officials since the 19th century have claimed that public space serves several social and political ends (Schmidt, 2008).² They are considered essential components of economic growth and development, so much so that they can impact adjacent property values positively and attract local retail development (Carr et al, 1993; Garvin, 2002).² These spaces represent ‘integral pieces of the urban physical fabric, connecting disparate neighborhoods and encouraging interaction among an otherwise dissimilar constituency’.² While initially the onus for providing and maintaining public space rested entirely on public agencies—allowing the privatization of public space has enabled its ubiquity, albeit with some caveats.²

As outlined in this section, public access is beneficial to all. However, recognizing different and sometimes opposing user needs and constituencies is also necessary for the holistic success of a given project. Balancing the many needs and users of a certain space, often necessitates rules of behavior along with other site conditions which limit public access (as allowed through RRR).

1.3 What does maximum feasible public access look like?

“...no single space should be expected to meet the needs of all users at all times”

Németh, J., & Schmidt, S. (2011)

At any given point, a public space rests on a spectrum of ‘publicness’. A measure of this ‘publicness’ is an outcome of the interaction between ‘the ownership, management and uses/users’ of that space. Actions that restrict social interaction, constrain individual liberties, and exclude undesirable populations, reduce the ‘publicness’ of any given space². However, reducing the ‘publicness’ of a space sometimes become necessary as the needs of various users and uses need to be considered. Providing suitable public access is a balancing act where conflicting objectives of promoting diverse public use while also protecting Bay natural resources need to be carefully considered. For e.g., hours of access may need to be limited due to the absence of an adjacent nighttime use to provide passive surveillance when there’s been documented cases of vandalism, homeless encampments etc.

The design and management of a public space involves a series of controls to ensure public safety and the protection of property. “Hard controls” involve the use of overt physical impositions (surveillance cameras, private security guards, limiting hours of use and regulating behavior), and “soft controls” focus on symbolic measures (natural surveillance, discouraging use through suggestive paving).² While ‘soft controls’ reduce publicness to some extent, they tend to not significantly impact public access. On the other hand, ‘hard controls’ can have a significant impact on the space’s ‘publicness’ and hence need further consideration prior to implementation.

2.0 Common Issues

BCDC permits provide for the application of Reasonable Rules and Restrictions (RRR) on the use of the public access areas to correct problems such as lack of public safety protections or increased vandalism, or to protect local wildlife and vegetation. Rules may include hard controls, such as restricting hours of use and delineating appropriate behavior such as having dogs on leash in areas near sensitive habitat. Rules and restrictions have to be approved by BCDC upon a finding that the proposed rules would not significantly affect the public nature of the area, would not unduly interfere with reasonable public use of the public access area and would tend to correct a specific problem that has been both identified and substantiated.

² Németh, J., & Schmidt, S, 2011

This section outlines some of the reasons why a permittee might seek permission to limit or regulate public access.

2.1 Wildlife & Vegetation

The presence of endangered or critical wildlife and vegetation on site may lead to the permittee to regulate public access on site. Public access can have adverse effects on wildlife and can result in adverse long-term population and species effects. The type and severity of effects on wildlife depend on many factors, including site planning, the type and number of species present and the intensity and type of the human activity.³

Some of the common negative impacts of human presence on Bay natural resources include (i) flushing of birds, which increases stress, interrupts foraging, causes nest abandonment, (ii) creation of new predator access opportunities, (iii) vegetation shading, and (iv) habitat fragmentation.³ Although some wildlife may adapt to human presence, not all species may adapt equally, and adaptation may leave some wildlife more vulnerable to harmful human interactions such as harassment or poaching.⁹

While limiting or regulating public access may become necessary, allowing the public to experience wildlife and sensitive habitat areas can promote both environmental stewardship as well as public education. In most cases adverse impact of public access on wildlife and vegetation can be mitigated by employing appropriate design measures and behavior controls (see 'Potential Solutions').

2.2 Public Safety

In the last several years, many local governments have had to propose curfews for both beach areas and nearby parking lots. These curfews are generally in response to substantiated inappropriate, criminal or illicit behavior.⁴

Some of the reasons why a permittee might want to limit access may pertain to public safety and potential liability. These concerns may be due to documented crime on-site or in the area as a result of insufficient personnel or night-time use. Numerous solutions, listed later in this paper, may be employed before imposing restrictions becomes necessary.

2.3 Critical Infrastructure Security

Closing or limiting hours of access and regulating public behavior around critical infrastructure spaces may be necessary and unavoidable since unrestrained public access might become a threat to local, state, and/or national security. Some examples of where such restrictions are needed include military infrastructure, airports, seaports, prisons and waste treatment facilities.

In these cases, rules and restrictions to public access are unavoidable and expected.

2.4 Personal Safety & Protection of Property

Permittees might want to limit or regulate public access due to security concerns pertaining to their property. Repeated and documented cases of vandalism, break-ins, insufficient security personnel and homeless encampments are common reasons why a permittee might want to seek approval to limit public access. For example, public shore parking might lead to overnight camping which discourages other users from using the space and may also have detrimental environmental impacts like illegal dumping or littering; hence enforcing limited hours of use might become necessary.

2.5 Privacy & Aesthetics

If the development is in a residential area, there might be concerns from adjacent residential properties regarding the loss of privacy due to public access. Similar concerns may arise if the property is next to a development that requires increased privacy such as prisons, rehabilitation centers etc. Ideally, these concerns should have been

³ The San Francisco Bay Conservation and Development Commission (BCDC), 2005

⁴ California Coastal Commission, 1999

accounted for and mitigated during the planning stage. Adjoining property owners might also have aesthetic concerns pertaining to potential or documented littering, graffiti and a perceived change in neighborhood character.

Public access would typically be developed in concert with adjoining residential development in such a case, and such problems would be addressed during permit negotiations.

However, in some cases unforeseen circumstances could occur after the fact, that require correction. For e.g., BCDC has in the past allowed screening to maintain privacy of residential properties close to public access areas. In such cases the Reasonable Rules & Restrictions becomes the necessary mechanism in the permit that allows for specific corrections to substantiated problematic behaviors.

2.6 Existing Agency Ordinances

There are existing ordinances that limit activities and hours, specifically in park districts as well as more locally in parks and public spaces in general. Consideration of these ordinances needs to be acknowledged in the permit RRR condition. Often these districts have general ordinances and then call-outs for particular locations. These conditions can be evaluated on a case-by-case basis by BCDC, but they need to be acknowledged in the general public access or RRR permit condition. For e.g., The parks in Contra Costa county fall under East Bay Parks, who let parks all have their own hours, but if no hours are posted their hours are 5am-10pm, which about a fifth of all parks fall under.⁵

3.0 Potential Solutions

Permittees seek to limit public access under the RRR condition after the site has been designed, built and is in operation and undesirable activities due to public access have been documented/substantiated. They are given permission to do so under RRR only once they have tried to remedy the problem using all feasible strategies.

Adopting the following hierarchy of remedial actions is recommended:

1. AVOID > 2. MINIMIZE > 3. MITIGATE

This section lists strategies that may be used to address the concerns mentioned in the previous section at different stages in the project.

Permittees can predict and **avoid** future problems that could arise on the site, through careful planning and design. Most architectural changes would have to be adopted at the design stage of the project and would need to be approved under 'Plan Review'—a separate permit condition.

Permittees can then **minimize** impact on MFPA, by enforcing temporary interventions and using techniques that address concerns without reducing public access. Temporary closures are not addressed by RRR.

Finally, only when absolutely necessary, MFPA may be reduced through interventions but such a loss needs to be **mitigated** through the provision of alternative access.

Typical solutions available to avoid and minimize loss of MFPA involve 'soft controls' such as using natural surveillance or design measures to control and regulate access.

Note on Equity Concerns & 'Hostile Architecture'

There has been rising concern over whether privately managed public spaces are truly public. Research shows that the managers of privately owned spaces tend to employ more features that control behavior than their public sector counterparts. Such control in privately owned spaces is achieved through surveillance and policing techniques as well as design measures that 'code' spaces as private. Making public spaces open to the public only during certain hours and refusing entry to certain users at certain times (Németh, 2009) are all actions that limit the publicness of

⁵ Refer to BCDC's "Public Access Hours Memo" (Green, Scott & Low 2019) for more examples of such ordinances.

public spaces². Prioritizing security over inclusion or publicness is potentially problematic, as attempts to attract a more 'appropriate' population are often dependent on excluding those deemed less desirable (Whyte, 1988).² This often enables discriminatory practices that position certain communities as criminals and attempt to keep them out. In order to ensure maximum feasible public access, it is necessary to acknowledge equity concerns and evaluate whether an attempt to limit access is centered on a discriminatory premise.

Particular attention needs to be paid to the use of hostile architecture, which is an urban-design strategy that uses elements of the built environment to purposefully guide or restrict behavior in order to prevent crime and maintain order.⁶ It often targets people who use or rely on public space more than others, such as youth and the homeless, by restricting their access.⁶

A lot of the strategies listed below can become 'hostile' and hence their impact on vulnerable populations should be carefully examined and minimized as far as possible. All of these strategies must be implemented in conjunction with equity measures to ensure that disadvantaged communities, especially people of color, are not disproportionately impacted and discriminated against. As has been seen repeatedly, racial profiling is rampant in the U.S. and a number of complaints received are racially motivated. Permittees must carefully evaluate the legitimacy of security and personal safety threats keeping this in mind.

3.1 Design strategies

3.1.1 Public Safety & Security: Crime Prevention

Appropriate design and effective use of the built environment can reduce the incidence and fear of crime. CPTED (Crime Prevention Through Crime) can be applied without interfering with the normal use of the space. It is easy to apply and can be economical to implement. CPTED strategies are best applied during the design stage, however some (such as using effective signage and providing adequate lighting) can be implemented even after the building has become operational.⁷

The core strategies CPTED recommends are⁷:

- allow for clear sight lines,
- provide adequate lighting,
- minimize concealed and isolated routes,
- avoid entrapment (cul-de-sacs or single-access spaces that are difficult to escape from)
- reduce isolation (spaces that cannot be passively monitored and/or are difficult to access),
- promote land use mix,
- use activity generators such as kiosks and street vendors,
- provide signs and information

Lighting

- A basic level of lighting should allow the identification of a face from 30 feet for a person with normal vision.
- If the area is intended for night-time use, lighting should provide adequate visibility.
- Lighting of different wattage, color temperature and rendition may also be used to make certain public areas "less hospitable" to gathering for long periods.
- Lighting is not desirable in places that are not intended for night-time use. Might provide false sense of confidence.
- Lighting should be uniformly spread to reduce contrast between shadows and illuminated areas. More fixtures with lower wattage rather than fewer fixtures with higher wattage help reduce deep shadows and avoid excessive glare.
- Bushes and trees that block off light should be trimmed. Lighting fixtures should be located at suitable heights for easy maintenance and replacement. Light fixtures should be maintained in a clean condition and promptly replaced if burnt or broken. Posting information indicating who to call in case of burnout or vandalized lights is desirable.

Concealed or Isolated Routes

⁶ D. Guercio, L., 2013

⁷ National Crime Prevention Council, 2003

- Signs should be placed at the entrance to indicate alternative well-lit and/ or frequently travelled routes, es. at night/in the evening. Avoid unused and unusable dead spaces.

Activity Generators

- Appropriately licensed street vendors or food vendors should be encouraged in parks and the sensitive placement of seating areas informally generates activity along the edge of a path.
- Pedestrian oriented activities should be encouraged at ground level in high and medium density areas. Increased density generally attracts more people and may create more anonymity and a sense of fear. This sense of fear can be mitigated by creating more ground level activities such as retail which could add “eyes” on the street.

Signs and Information

- Well designed, strategically located signs and maps contribute to a feeling of security.
- Having addresses lit up at night will make them even more visible.
- If there is no attendant, there should be several well-lit, clearly marked entrances/ exits, in order to avoid entrapment.

3.1.2. Public Safety: Environmental Hazards



In order to ensure public protection against flooding, rising sea level and steep bluffs, armoring and/ or bio fencing may be used in conjunction with public walks or promenades along the crests of armoring structures.⁸ Design principles will necessarily vary by region and local conditions: for e.g., North Carolina has experienced success with replacing seawalls with grassy margins reinforced by low, rocky sills. Stark bulkheads might be replaced by more limited structures that allow for marine mammal haul-outs and some degree of bluff erosion.⁸ Some amount of filling may also be allowed to facilitate public access.

If physical alteration is not feasible, then a rule or restriction that limits access by enforcing social or psychological control may become necessary. For example, Lovers Point in Pacific Grove experiences huge waves that overtop a jetty. A restriction to ensure public safety there, would be to close the jetty during big wave events. Temporary closures such as these minimize loss of public access, while also ensuring public safety.

In case of on-site hazardous contamination and construction, public access may be temporarily closed and provided elsewhere until the risk has been averted.

3.1.3. Wildlife & Vegetation Protection

Accurate characterization of current and future site, habitat and wildlife conditions, and of likely human activities during the planning stage is necessary to understand the potential impact of public access on wildlife.⁹ Potential

⁸ Caldwell, M., & Segall, C. 2007

adverse effects on wildlife from public access may be avoided or minimized by siting, designing and through the soft control of public access to reduce or prevent adverse human and wildlife interactions.⁹

Some strategies to consider include:

- Young plants should be protected as they become established so that they are not harmed by public access users. Low fencing by means of hedges can be an effective means of keeping people out of newly planted areas.**Error! Bookmark not defined.**
- Periodic closures, instead of permanent ones, can be implemented to avoid effects on wildlife during sensitive periods, such as breeding seasons.³ Note: Permission will be required from BCDC (not RRR).
- 90% of all flushing events appear within 165 feet of the habitat.¹⁰ Adequate natural or artificial buffers may be created, and hiking trails avoided to discourage people from venturing too close to protected habitats.
- Planting or preserving evergreen trees in dense rows along critical parts of disturbance sources and reducing degree of visibility,¹⁰ can reduce human impact.
- Balancing public access & habitat management is necessary. Assigning a carrying capacity to a certain habitat is prescriptive and reduces the possibility of using innovative methods to sustainably maximize the number of users.

3.2 Management strategies

Besides design, good management can also impact on-site security and public safety. Some strategies to consider include:

- Regular maintenance and use of vandal-proof equipment
- Use formal surveillance such as CCTV and personnel, only if natural surveillance fails.
- Predictive surveillance (specific time of the day, seasons of the month, event oriented); emphasize using measures temporarily since crime patterns change over time and privacy is a concern.
- Emergency call boxes (blue-light phones) (symbolic, increase sense of safety—may not be effective beyond that), intercoms

3.2.1. Ownership & Maintenance

Fostering a sense of ownership in local stakeholders, increases the odds of them interfering when crime occurs on-site. This can be enabled by using some of the participatory methods listed below, in conjunction with enabling sight lines and regularly maintaining the public access area.⁷

The broken windows theory is a criminological theory that states that visible signs of crime, anti-social behavior, and civil disorder create an urban environment that encourages further crime and disorder, including serious crimes.¹¹ Poorly maintained spaces may be avoided by the public and may be uninviting, further reducing 'eyes on the street' and encouraging crime,

Hence maintenance is crucial to discourage crime. Well displayed telephone numbers or web sites to call for repairs and report vandalism to properties, especially in public areas are desirable. Offensive graffiti should be promptly removed either by the property manager or the public authority. Response to litter pickup and repairs should also be prompt.⁷

3.2.2. Participatory planning & design

If a project employs public participation methods in its early stages, it encounters fewer conflicts and fosters a sense of ownership in the local community. The notion of "community" suggests neighbors looking out for each other, including with respect to crime.¹² A tight-knit community may limit opportunities for crime by controlling the streets and sidewalks, keeping strangers under surveillance, and placing a check on local teenagers.¹² A bottom-up approach with public participation before defining regulations is an innovative process that can be enabled through

⁹ The San Francisco Bay Conservation and Development Commission (BCDC), 2020

¹⁰ Thiel, Ménoni, Brenot, & Jenni, 2007

¹¹ Wilson & Kelling, 1982

¹² National Bureau of Economic Research, 2009

stakeholder consultations and workshops.¹³

The bottom-up management approach, where main stakeholders can participate, is ideally applied at the local scale in coastal areas, with a long lasting community based management, where users live in the proximity and experience direct impacts and benefits from the development (Gaymer et al., 2014). However, it may be expanded to urban areas where the stakeholder consulted may include local business owners.¹³

3.2.3. Formal Surveillance

If natural surveillance fails, then formal surveillance in the form of CCTV, emergency call boxes and intercoms may be used. Only when that fails, should private security personnel be used. Private security personnel serve a narrow purpose, namely, to protect the property and people they are hired to protect. ¹² 'The guard's job is accomplished if the robbers avoid his bank, or his corporate executive is not kidnapped, or rowdy teenagers are successfully kicked out of his shopping mall, or the would-be burglar does not enter his gated community'.¹² Hence focus should be placed on preventative measures, rather than corrective ones. Predictive surveillance, i.e. surveillance at specific times of the day/year or during specific events, may be a more cost-effective means of deploying security personnel.

If public access is permitted to be limited or regulated due to security or crime-related personal safety concerns, then this permission should be temporary. Research shows that crime patterns change over time, as and when restriction are imposed.

Conclusion

While public access is important, one needs to balance various users and uses on site hence BCDC requires maximum *feasible* public access in all shoreline projects. A number of permittees seek to limit or regulate public access, after the project has been designed, built and in operation and has encountered some documented inappropriate behaviors on site such as overnight camping and vandalism. The Reasonable Rules & Restrictions clause in permits allows for remedial actions to limit or regulate public access, however a strategy of avoid-minimize-mitigate should be adopted before reducing MFPA. This paper outlines some of the reasons why a permittee might apply for RRR and proposes some solutions that can be adopted at different stages of the project. Permittees who are still in the design stage, are encouraged to be mindful of the problems that could possibly come up and use the solutions listed in this paper to avoid such issues from arising. Those whose projects are already operational, have encountered inappropriate behavior on-site and are considering applying for RRR are encouraged to adopt design and management strategies that can be implemented without making substantial physical changes to the development.

If RRR becomes absolutely necessary then such restrictions should be allowed for the minimum possible time period, after which remedial impact should be evaluated and a decision on the continuance of the RRR should be made. Typically, crime patterns and inappropriate user behavior changes after a period of closure, and hence period tracking of change in behavior and evaluation of the impact of RRR is crucial to decide how long the RRR should be in effect for.

¹³ Ferreira, A., Seixas, S., & Marques, J., 2015

Theme	Issues	Solutions	Refer To
Wildlife & Vegetation	Nest abandonment New predator access opportunities Habitat fragmentation Vegetation shading, threat to agriculture Flushing Interrupted foraging Endangered/vulnerable species threatened/disturbed	Design, behavior modification Design, behavior modification Design, behavior modification Design, behavior modification Design, behavior modification Design, behavior modification Design, behavior modification	3.1.3
Security	Critical Infrastructure Security	Public access may be restricted.	2.3
	Vandalism	Design, management, natural before formal surveillance*	3.1.1, 3.2.1, 3.2.3
	Break-ins, theft Insufficient security personnel	Design, management, natural before formal surveillance* Design, management	
	Overnight camping	Design, management, limit hours of use	
Existing Agency Ordinances	Some national/state/city parks etc. might have hours of use in place.	Limit hours of use as per ordinance	2.6
Public Safety	Crime/lack of surveillance (liability issue)	Design, management	3.1.1, 3.2.1, 3.2.3
	On-site construction Water/soil contamination	Public access may be temporarily restricted, but alternate access should be provided. Design, management	3.1.2
	Unsafe natural physical conditions (steep/unstable bluffs, water level etc.) construction work on-site	Design, management, small amount of filling may be allowed Temporary Closure	
Privacy	Adjacent residential properties	Design, management, participatory planning & design	2.5, 3.2.2
	Sensitive Use: rehab centers, children's play areas	Limit hours of use, design	3.1.1
Aesthetics	Littering	Management	3.2.1
	Neighborhood character	Design, management, participatory planning & design	3.2.2

Bibliography

- The San Francisco Bay Conservation and Development Commission (BCDC). (2005). *Public Access Design Guidelines for the San Francisco Bay*.
- The San Francisco Bay Conservation and Development Commission (BCDC). (2007). *Shoreline Plants*.
- The San Francisco Bay Conservation and Development Commission (BCDC). (2020). *Bay Plan*.
- California Coastal Commission. (1999). *Public Access Action Plan*.
- Németh, J., & Schmidt, S. (2011). The Privatization of Public Space: Modeling and Measuring Publicness. *Environment and Planning B: Planning and Design*, 38(1), 5–23. <https://doi.org/10.1068/b36057>
- National Crime Prevention Council. (2003). *Crime Prevention Through Environmental Design Guidebook*. ncpc.org.sg/cpted
- Dominik Thiel, Emmanuel Ménoni, Jean-François Brenot, & Jenni, L. (2007). Effects of Recreation and Hunting on Flushing Distance of Capercaillie. *The Journal of Wildlife Management*, 71(6), 1784-1792. Retrieved August 19, 2020, from www.jstor.org/stable/4496269
- Ferreira, A., Seixas, S., & Marques, J. (2015). “Bottom-up management approach to coastal marine protected areas in Portugal”. *Ocean & Coastal Management*, 118, 275-281. <https://doi.org/10.1016/j.ocecoaman.2015.05.008>
- D. Guercio, L. (2013). Climate Change Adaptation and Coastal Property Rights: A Massachusetts Case Study, 40 B.C. Env'tl. Aff. L. Rev. 349.
- National Bureau of Economic Research. (2009). *Limiting Criminal Opportunities Prospectus*.
- Caldwell, M., & Segall, C. (2007). No Day at the Beach: Sea Level Rise, Ecosystem Loss, and Public Access Along the California Coast. *Ecology Law Quarterly*, 34(2), 533-578. Retrieved July 14, 2020, from www.jstor.org/stable/24114634
- George L. & Kelling, J. (1982). *Broken Windows*. [online] The Atlantic. Available at: <https://www.theatlantic.com/magazine/archive/1982/03/broken-windows/304465/>