

# Developing a strategic approach to evaluating the role of endocrine disrupting chemicals (EDCs) on the south Florida marine environment

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## Outcomes from Workshop Related to Sunscreen:

P1-I.17	Mitigate the climate-linked impacts from EDCs, including heavy metals, synthetic estrogens, sunscreens, plastics and other marine litter.	<ul style="list-style-type: none"><li>• Identify how EDCs including litter are affected by changing conditions including acidification</li><li>• Model the effects to individuals and populations resulting from climate-driven increased EDC impacts</li><li>• Indicators improving the interface between science and policy</li></ul>
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### Communications Group Notes:

Prioritize messaging:

1. Need a multiorganizational agreement as to what chemicals/products to conduct messaging about. e.g. heavy metals, sunscreens, medication practices, or specific chemicals.
2. Then work to create unified messaging. More voices = higher chance of success.
3. Establish an end target for all communications. i.e. why are we doing this? or... Why are we working to ban sunscreens? What is the end goal of banning sunscreens?

Cautious messaging:

1. We must be careful not to put out messages that could backfire and discredit future messages. e.g. The example sunscreen given to the public need to be firmer in science. If we know what is bad, be ready with clear alternatives. These alternatives must be proven as well. We do not want to promote something that could be just as bad.
2. What sunscreens don't cause endocrine disruption
3. Should we promote only sun protective clothing?
4. Health department may be an ideal partner

### Monitoring Group Notes:

Oxybenzone + derivatives – monitoring here in Fl. Keys

Establish a baseline for prevalence for oxybenzone (or other target EDCs)

### Science Group Notes:

Find Sentinel Organisms (what in the Keys is impacted)

Preliminary Framework:

## Other Preliminary Notes from Endocrine Disrupter Workshop

### Communications

Multiorganizational agreement on target chemicals/products for messaging	<ul style="list-style-type: none"> <li>• Communication plans implemented to inform stakeholders and public.</li> <li>• Research into how to develop open channels of communication between South Florida organizations (i.e. governing bodies, private organizations, and NGOs).</li> <li>• Identify the communication targets important to engage and develop target-specific strategies</li> <li>• Identify existing target-specific communications strategies and adapt them to South Florida EDC based issues with an emphasis on value and networking.</li> </ul>
Create grassroots support for EDC regulation and responsible use in the FL Keys	<ul style="list-style-type: none"> <li>• Find local values and importance to convey message</li> <li>• Determine vulnerabilities of that local value to EDCs</li> </ul>

### Governance

Increase the integration of policy across FL Keys	<ul style="list-style-type: none"> <li>• Identify areas of commonality with respect to endocrine disruptor prevalence or potential sourcing</li> <li>• Identify best practices for public-private partnerships</li> <li>• Identify pathways to integrating policies across sectors</li> </ul>
Identify the system to be governed	<ul style="list-style-type: none"> <li>• Identify How to best regulate known EDCs</li> <li>• Develop methodology to identify candidate products/industries to be regulated</li> <li>• Develop methods to track enforcement and compliance</li> </ul>
Utilize existing regulatory systems	<ul style="list-style-type: none"> <li>• Develop best practices for governance processes</li> <li>• Research on "byproducts" of processes (e.g., life cycle)</li> <li>• Research into effective approaches for ratification to include EDCs into existing regulations</li> <li>• Research into most effective approaches to engage judiciary/magistrates/ enforcement officers on EDC issues</li> </ul>

### Monitoring

Increase in funding dedicated to monitoring EDC impacts on marine biodiversity and coastal communities	<ul style="list-style-type: none"> <li>• Identify existing monitoring funding avenues that may be utilized for EDC monitoring</li> <li>• Identify agencies appropriate to fund or take on funding of EDC monitoring</li> </ul>
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<p>Increase in number of sites with time-series databases on EDCs to determine long term prevalence and trends</p>	<ul style="list-style-type: none"> <li>• Determine if any long-term monitoring for EDCs in already in place</li> <li>• Determine monitoring programs that may adapt to include EDCs</li> <li>• Spatially examine optimal areas to perform monitoring (e.g. sensitive communities or approximation to sources)</li> </ul>
<p>Increase the proportion of coastal and marine areas being monitored</p>	<ul style="list-style-type: none"> <li>• Contact monitoring organizations throughout region to determine if they have a monitoring plan and its current targets</li> </ul>