

Beach Notification Flow Implementation Guide

The Beach Notification flow covers beach closure and advisory notifications. (Beach water quality monitoring data is submitted through WQX.) Beach Act grant recipients are currently required to submit beach closure data once a year to EPA.

BENEFITS

The EN provides the ability to automatically update public websites with beach closure data (services available for partners once they join the flow)

Partners will be able to meet potential future requirement for real-time beach notification submissions

Implementation is straightforward: all partners already flow data in XML format

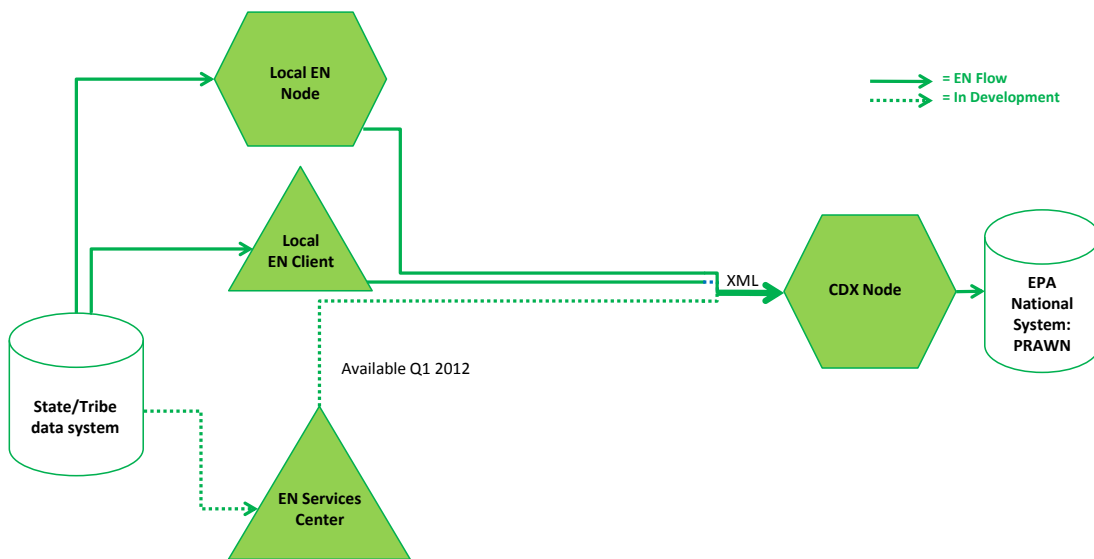
Practical Implementation Advice

- If partners already have an EN node or client, they should automate beach notification submissions.
- Agencies with responsibility for the beach notification flow that do not have an EN node or client should consider partnering with agencies or other organizations that do have a node—or they can implement currently available free node technology themselves.
- Partners can use the EN Services Center when it is available.

Beach Notification Data Flow Options

The graphic below shows the current options for flowing beach notification data. Exchange Network (EN) flow options are shown in green. There are no non-EN options. (Terms are explained in Attachment I).

Exchange Network Flows: Beach Notification



EXCHANGE NETWORK (EN) OPTIONS:

- Submit an XML file using a local EN Node or client.
- Submit data via the EN Services Center when it is available.

NON-EXCHANGE NETWORK OPTIONS:

- There are no non-EN flow options.

Summary of Current Practice

All beach notification data is currently reported in XML format regardless of whether users use the Exchange Network or not. Although a few partners have automated this flow through their nodes, most have not. Because beach notification submissions are required only once a year, the incentive to automate this flow is currently low. There is, however, high demand for beach closure information from the public. Furthermore, pending legislation to amend the Beach Act may require real-time data submissions. These two factors will provide a powerful incentive for partners to make their data available to nodes and enable widespread automation of this data flow.

Many partners responsible for beach notifications do not have a node or the node is administered by another agency. These, and other, partners currently using the CDX Web application can use the EN Services Center to flow data when it is available.

Beach Notification Flow Status and Milestones

To help transition partners to the Exchange Network, EPA is developing the EN Services Center, which will allow partners to flow beach notification data.

The table below shows institutional responsibilities and target completion dates for each activity. (EPA general criteria for assessing the “readiness” of National System Flows is included as Attachment 2).

Criteria:	Status	Actions	Primary Responsibility	Completion Period (CY)
Automation ready	Complete			
Solutions for all partners	Complete	Develop and deploy EN Services Center for use by eBEACHES partners	EN staff	
	On Track	Outreach to legacy application user community	OW	Q4 2012
	On Track	EN/CDX demo Service Center to eBEACHES State partners	OW/EN staff	Q4 2012
	On Track	Test with a few State Beach Staff	OW/EN staff	Q3 2012
	On Track	Train legacy State users	OW/EN staff	Q3 2012
	On Track	Test submissions by States	OW	Q2 2012
	On Track	Flow 2012 beach season data	OW/EN staff	Q1 2013
	On Track	Identify and evaluate further enhancements	OW/EN staff	Q1 2013
Access to transaction status	On Track	Develop transaction messaging	EN staff	Q2 2012
Accessible and stable flow documentation	Complete			
Specifications for Data Access Services	On Track	Modernize eBEACHES; currently developing requirements, cost, & schedules for Phase 2	OW	Q2 2012
Clear path to eliminate alternatives	On Track	100% of eligible users are using EN Services Center	EN staff with input from OW	Q2 2013

Attachment 1: Terms

Node: A partner's point of presence on the EN consisting of a server (hardware and software) enabled with web services that allow partners to automatically provide and receive information via the EN and to publish data for use by other EN partners.

EN Client: A stand-alone application (i.e., software code) that lets partners submit data, request data, and receive results from an EN request. Clients differ from nodes in that they cannot respond to queries from other nodes and so cannot publish data. Clients also need more manual (vs. automated) steps, for example, to extract data and generate and review reports before submission.

EN Services Center: A website that allows EN users to easily send, get, and download information from other partners on the EN. The Services Center will serve as a replacement for manual submissions of information through CDX Web. It is an appropriate solution for those EN partners who do not require or are not yet ready for the automation and data publishing capabilities of an EN Node. The EN Services Center is available at <https://enservices.epa.gov>.

CDX: EPA's Central Data Exchange. It serves as EPA's centralized electronic report receiving system. It receives data from partners and directs the data to EPA's program-specific National Systems (e.g., AQS, WQX, etc.).

CDX Node: CDX Node is EPA's node on the EN, allowing EPA to receive, send, and provide information via the Network. CDX Node can also publish EPA data for use by other EN partners.

CDX Web (non-EN) Application: A legacy CDX application that receives data (flat file or XML format) via standard web browsers. CDX Web applications are not consistent with EN protocols (e.g., they have a separate authentication and authorization service from the EN) and typically involve more manual steps than a node-to-node exchange of data.

Data Access Services: Using web services to make data available to Network users by querying nodes and returning environmental data in the form of XML documents. Published data can be accessed using a node or clients. Published data can be used in a number of ways, such as populating Web pages, synchronizing data between sites, viewing data in a Web service client, or building new sources of data into an integrated application.

Direct User: A partner entering data directly into a National Data System through a system-specific interface (manual entry).

EPA National Data System: Program-specific data systems at EPA that can receive and publish data via CDX.

Local Data System: A partner's database or series of databases in which environmental data is stored, managed, and manipulated.

XML: eXtensible Markup Language is a flexible language for creating common information formats and sharing both the format and content of data over the Internet and elsewhere. The electronic language that expresses and transports data standards and transaction sets. XML uses an extensible set of tags to describe the meaning of data.

Attachment 2: National System Flow “Ready to Use” Criteria

A focus of Exchange Network (EN) governance has been developing the National System Flows to help partners take advantage of the Network’s business value. Governance has identified six criteria for each flow to meet to make these flows “ready to use” by partners:

- Automation-ready. Support fully automated node-to-node flows.
- Solutions for all partners. Provide appropriately scaled EN solutions for partners of all sizes, needs, and capabilities. Some partners such as tribes and local clean air authorities may not need a fully functional node. Other EN solutions should be available to these users.
- Access to transaction status. Support a fully automated process for reporting transaction status, processing results, and QA results from receipt by CDX through final processing in the National System.
- Accessible and stable flow documentation. Develop and make accessible stable documentation that describes all flow requirements. This includes a complete Flow Configuration Document (FCD) that is in compliance with EN procedures for version management.
- Specifications for Data Access Services. Provide a national standard set of query/solicit services defined in the FCD whether or not data are currently published. Implement a publishing interface where published data are critical to partner business processes (such as NPDES permit information for NetDMR).
- Clear path to eliminate alternatives. Have a clear path to eliminate legacy system alternatives to EN exchanges, including transition support for partners.

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