

tributary of Pentolite Ditch (Upstream Un-named Tributary Cofferdam) to prevent the outflow of discolored water that originates within NASA's Plum Brook Station into Plum Brook (Sheets 2 and 3 of 7). The *Downstream Pentolite Ditch Cofferdam* has a top length of 50 feet, bottom length of 11 feet, width of 34 feet, and a height of 8 feet and will require the permanent placement of 288 CY of earthen fill and Class D riprap below the Ordinary High Water (OHW) of Pentolite Ditch (Sheet 4 of 7). *Middle Pentolite Ditch Cofferdam* has a length of 46 feet, bottom length of 10 feet, width of 26 feet, and a height of 10 feet and will require the placement of 197 CY of earthen fill and Class D riprap material below OHW of Pentolite Ditch (Sheet 5 of 7). *Upstream Unnamed Ditch Cofferdam* has a top length of 40 feet, bottom length of 17 feet, width of 22 feet, and a height of 8 feet and will require the placement of 199 CY of earthen fill and Class D riprap below OHW (Sheet 6 of 7). All three of the cofferdams contain a culvert system featuring two 8-inch pipes with operating valves to control the flow of water into Plum Brook and to maintain a near normal flow regime (Sheet 7 of 7).

PROJECT PURPOSE

Basic: To be in compliance with the OEPA NOV.

Overall: To prevent the release of discolored water from Pentolite Ditch at the NASA Plum Brook Station in the City of Sandusky, Erie County, Ohio.

AVOIDANCE AND MINIMIZATION INFORMATION:

Preferred Alternative

To maintain all three cofferdams with culvert piping systems. The footprint of the three cofferdam structures was kept to the minimum amount necessary while still allowing the cofferdams to perform their basic purpose. All three of the cofferdams contain a culvert system featuring two 8-inch pipes with operating valves to control the flow of water downstream and into Plum Brook (Sheets 4 -7 of 7). The culvert system will assist in the objective to maintain a near-normal flow into Plum Brook after the verification of water clarity and the absence of discolored water. By maintaining the three cofferdams and culvert system, water can be held and treated on-site, if necessary, prior to being discharged into Plum Brook. Total avoidance of aquatic resources is not possible because the cofferdams are required to sit in Pentolite Ditch and an Unnamed Tributary of Pentolite Ditch in order to control the flow of discolored water originating on-site.

Minimal Degradation Alternative

Maintain one downstream cofferdam in Pentolite Ditch near its confluence with Plum Brook that would act as a barricade between Pentolite Ditch and Plum Brook (Sheet 4 of 7). The cofferdam would not have a culvert pipe system to allow water to flow through, which would eliminate the normal flow of water within Pentolite Ditch to Plum Brook. Water held behind the cofferdam will need to be pumped into a frac tank and would need to be transported off-site to be treated at a waste water treatment plant (WWTP). The storage of discolored water on-site and then

transporting discolored water to a WWTP would add additional costs to this alternative.

Non-Degradation Alternative

Remove all three cofferdams constructed to hold and treat the discolored water on-site. This alternative would not meet the basic overall purpose of the project and this alternative would result in NASA being in direct violation with the Ohio EPA's NOV.

PROPOSED MITIGATION:

The applicant did propose compensatory mitigation for this proposal.

Comments or questions pertaining to the work described in this notice should be reference the Application Number and be directed to the attention of Shawn Blohm, who can be contacted at the above address, by calling 716-879-4436, or by e-mail at: shawn.u.blohm@usace.army.mil A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

The applicant has certified that the proposed activity complies with Ohio's approved Coastal Zone Management Program and will be conducted in a manner consistent with that program. Any comments on the consistency of the proposed activity with Ohio's Coastal Zone Management Program should be forwarded to:

Mr. John Kessler
Ohio Department of Natural Resources
Office of Real Estate
2045 Morse Rd.
Columbus, OH 43229-6605
phone: 614-265-6621
email: john.kessler@dnr.state.oh.us

The following authorization is required for this project:

Water Quality Certification (or waiver thereof) from the Ohio Environmental Protection Agency

Based on preliminary findings, there do not appear to be any properties listed in, or eligible for listing in, the National Register of Historic Places within the permit areas as shown on Sheet 2 of 7. This notice constitutes initiation of consultation with the Ohio Historic Preservation Office (SHPO) per Section 106 of the National Historic Preservation Act. All currently available historic resource information pertaining to this proposed project if any has been provided to the SHPO. Additional information concerning historic properties should be submitted to the Corps before the end of the comment period of this notice. The Corps will forward that information to the SHPO for their review.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the Corps of Engineers is consulting, under separate cover, with the USFWS to evaluate any potential impacts to: Indiana bat (*Myotis sodalis* - Endangered), Northern long-eared bat (*Myotis septentrionalis* - Threatened), piping plover (*Charadrius melodus* - Endangered), Lakeside Daisy (*Hymenoxys herbacea* - Threatened), rufa red knot (*Calidris canutus rufa* - Threatened) and eastern massasauga (*Sistrurus catenatus* - Threatened) and to ensure that the proposed activity is not likely to jeopardize their continued existence or result in the destruction or adverse modification of critical habitat.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership,

and in general, the needs and welfare of the people.

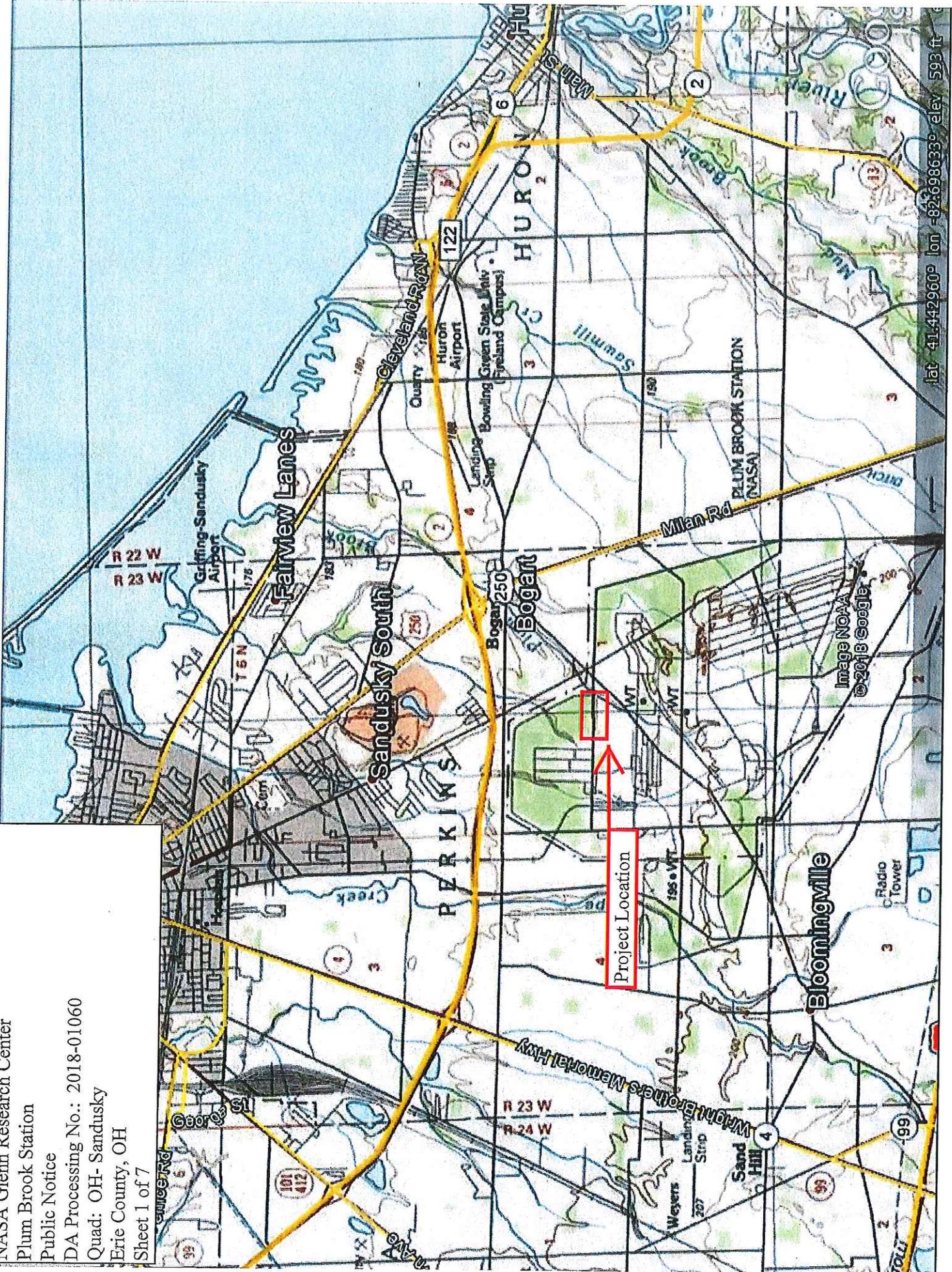
The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SIGNED

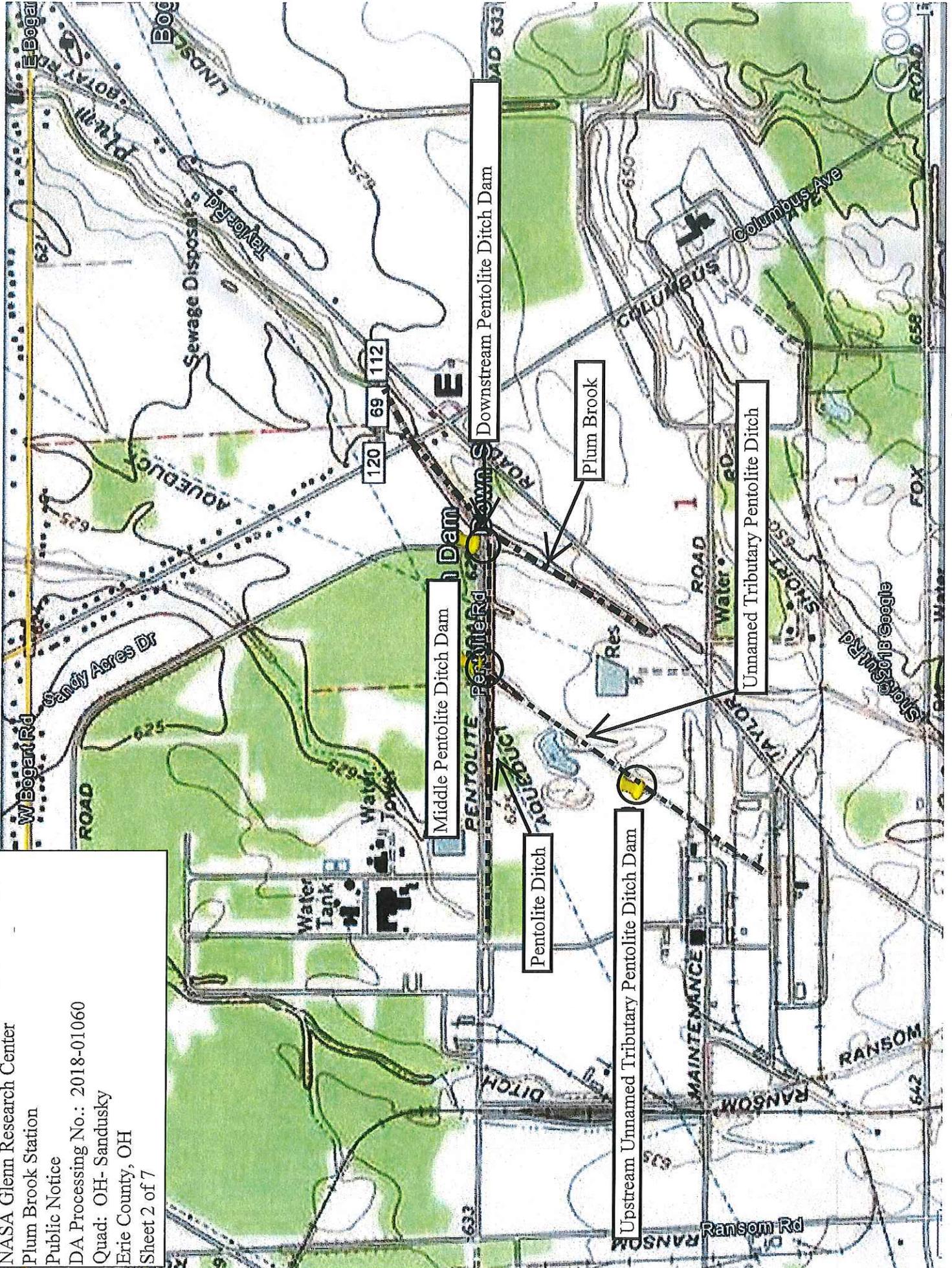
Diane C. Kozlowski
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.

NASA Glenn Research Center
Plum Brook Station
Public Notice
DA Processing No.: 2018-01060
Quad: OH- Sandusky
Erie County, OH
Sheet 1 of 7



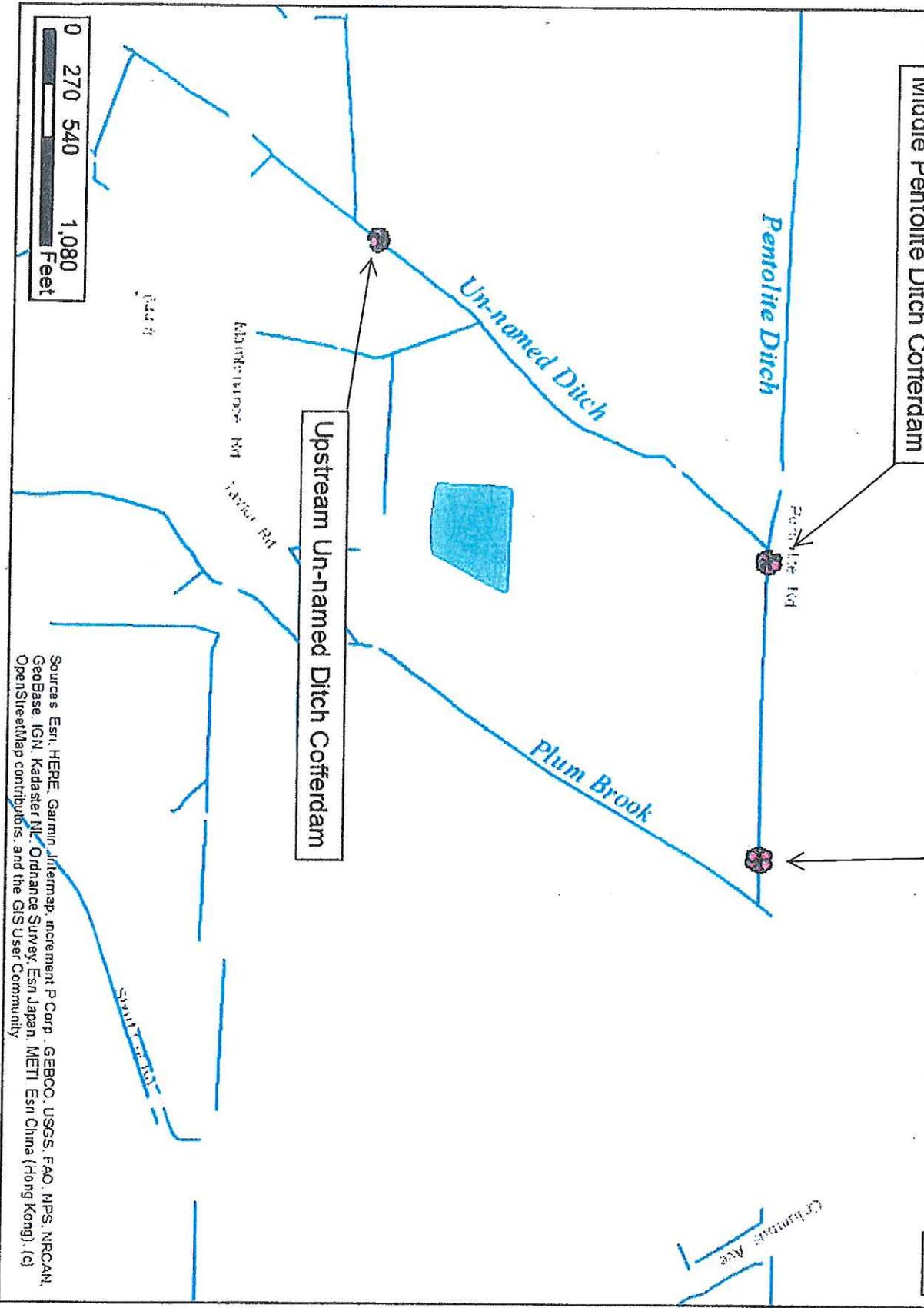
NASA Glenn Research Center
Plum Brook Station
Public Notice
DA Processing No.: 2018-01060
Quad: OH- Sandusky
Erie County, OH
Sheet 2 of 7



NASA Glenn Research Center
Plum Brook Station
Public Notice
DA Processing No.: 2018-01060
Quad: OH-Sandusky
Erie County, OH
Sheet 3 of 7

Upstream Pentolite Ditch Cofferdam

Downstream Pentolite Ditch Cofferdam



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, MPS, MRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

gs and Illustrations

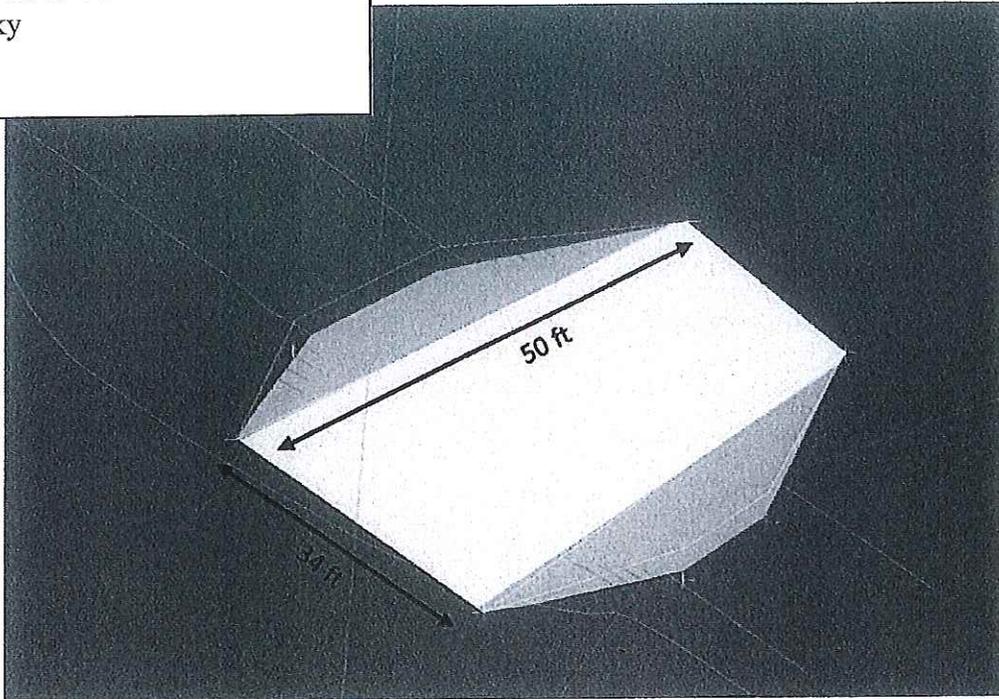


Figure 5: Plane View - Downstream Pentolite Ditch Cofferdam

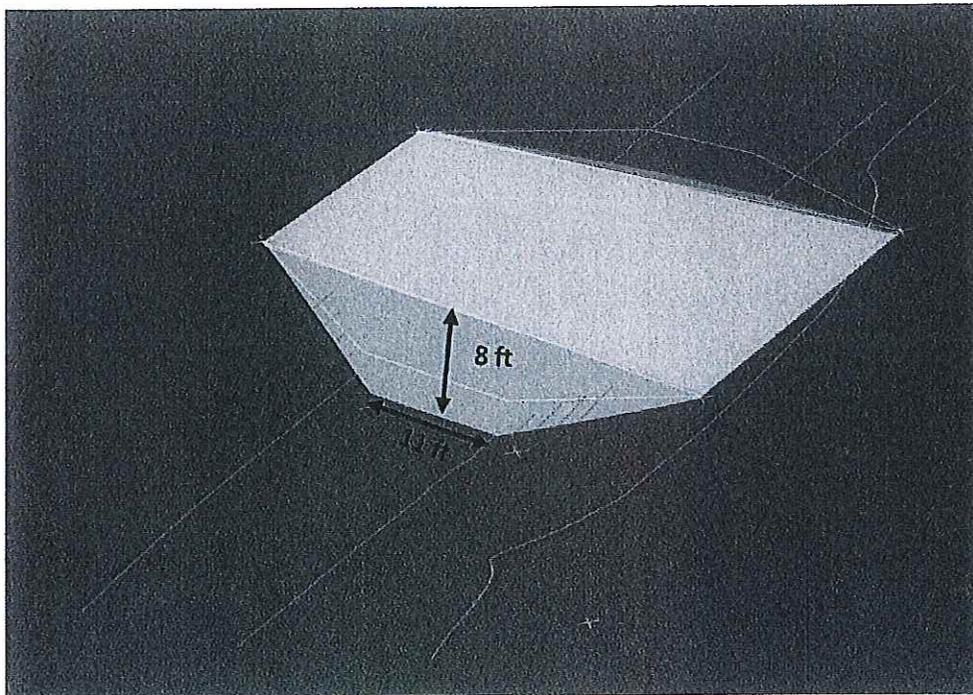


Figure 6: Cross Section – Downstream Pentolite Ditch Cofferdam

gs and Illustrations

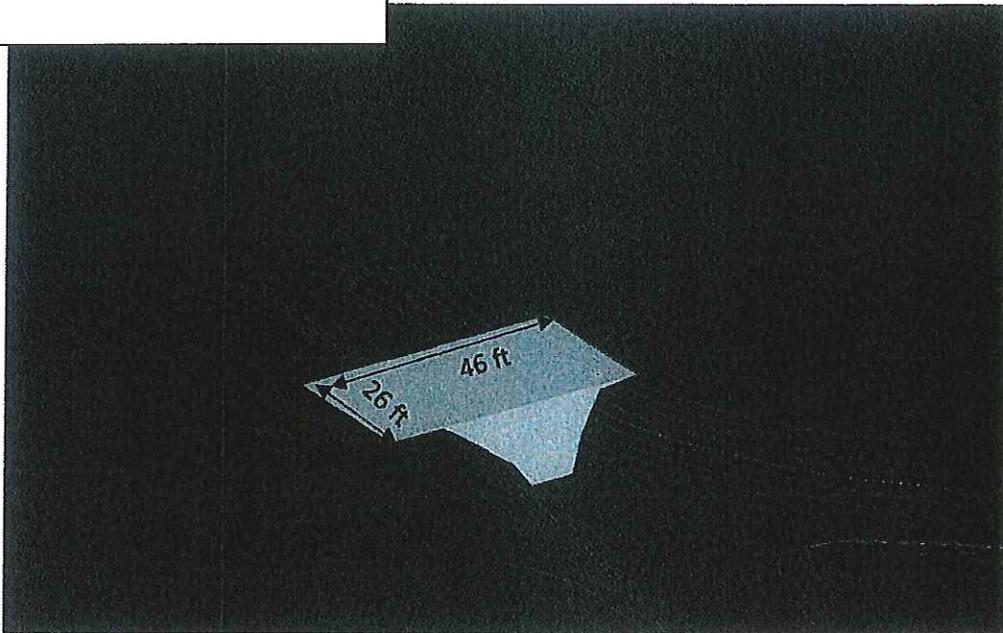


Figure 9: Plane View – Middle Pentolite Ditch Cofferdam

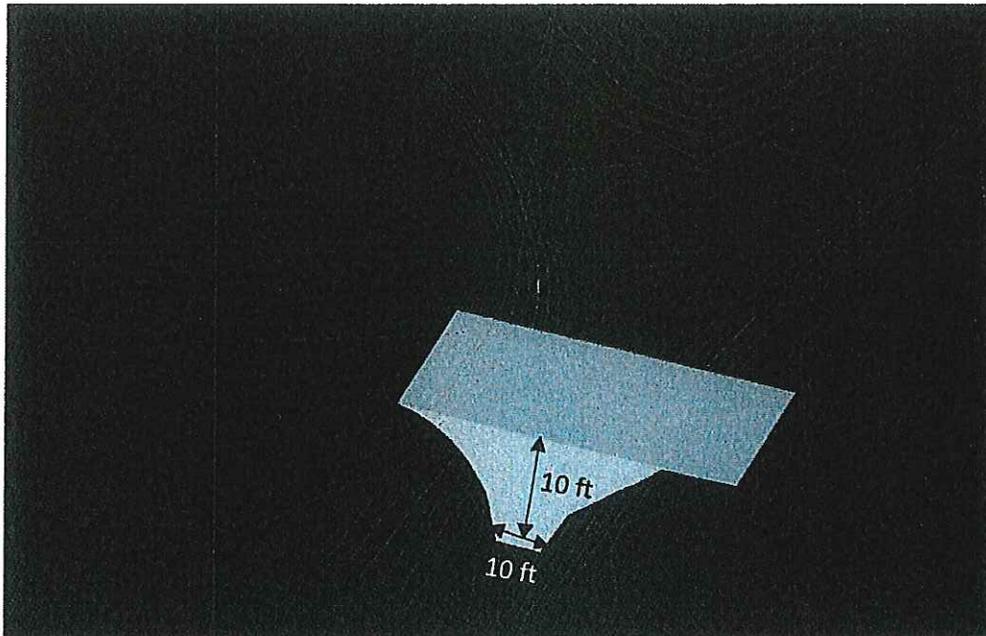


Figure 10: Cross Section – Middle Pentolite Ditch Cofferdam

gs and Illustrations

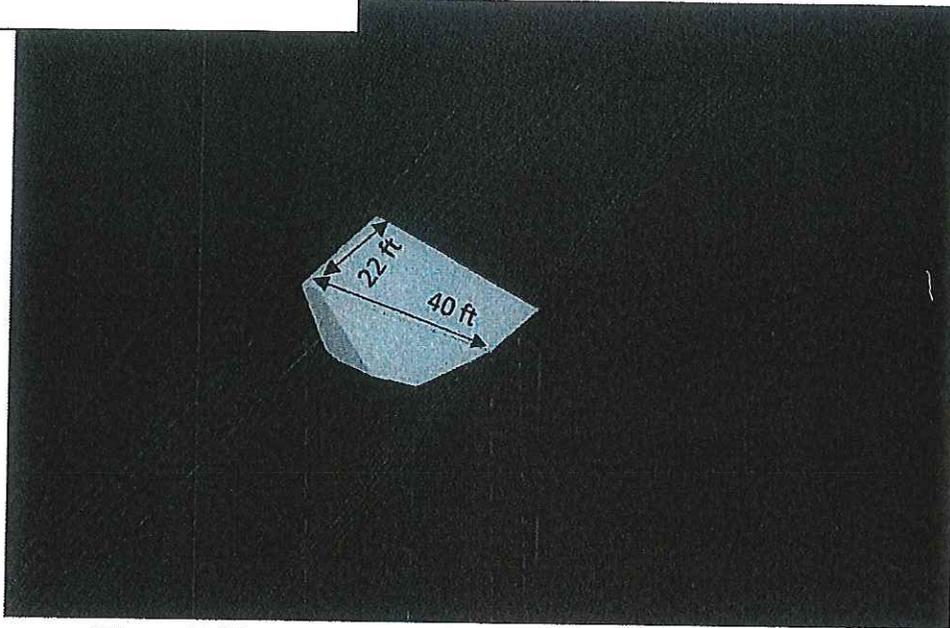


Figure 7: Plane View – Upstream Un-named Ditch Cofferdam

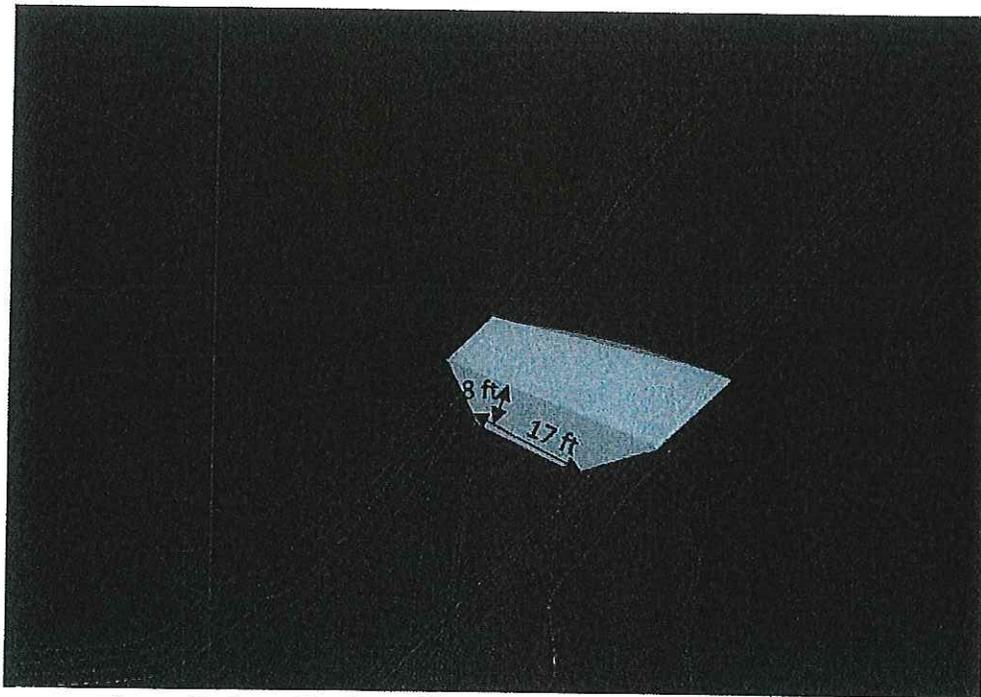
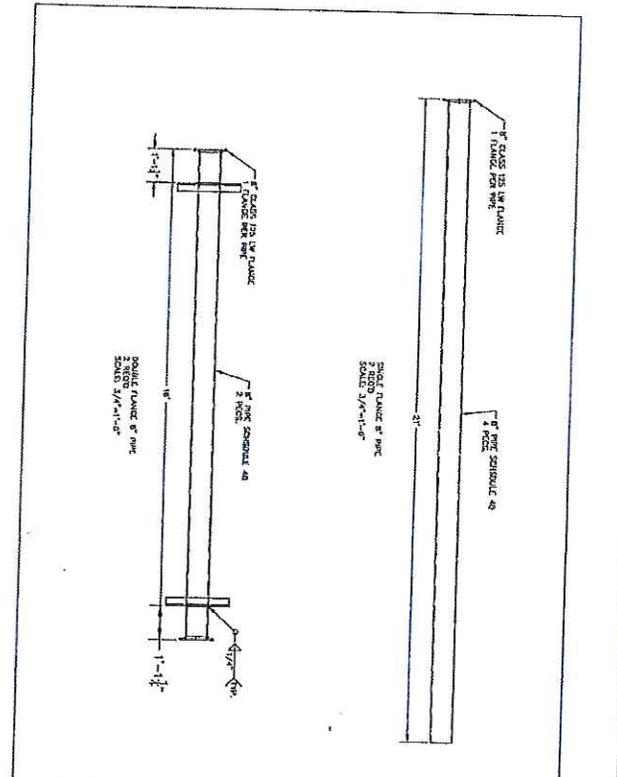
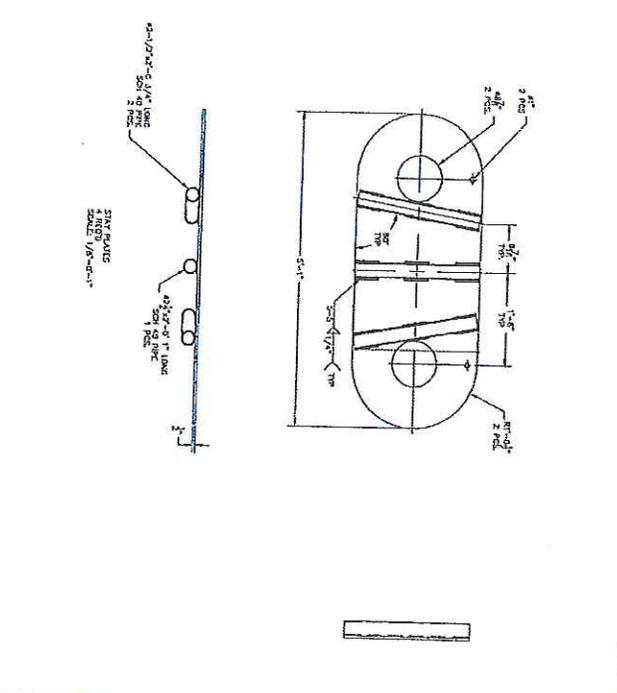
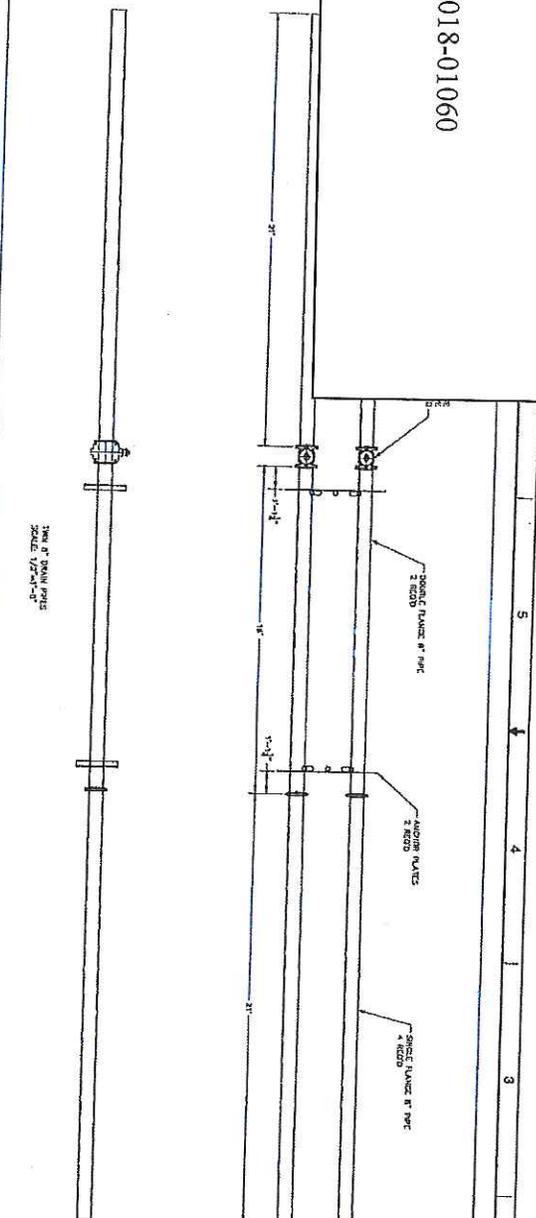


Figure 8: Cross Section – Upstream Un-named Ditch Cofferdam



GENERAL NOTES

1. THE ORDER & SIZE MATTERS WILL BE USED TO IDENTIFY THE ORDER & SIZE MATTERS.
2. THE ORDER & SIZE MATTERS WILL BE USED TO IDENTIFY THE ORDER & SIZE MATTERS.
3. THE ORDER & SIZE MATTERS WILL BE USED TO IDENTIFY THE ORDER & SIZE MATTERS.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY METROLOGICAL SERVICES 100 BUREAU DRIVE GAITHERSBURG, MD 20899-0001 TEL: 301-975-2950 FAX: 301-975-2955 WWW: NIST.METROLOGY.GOV	
DATE: 06/20/18 TIME: 10:00 AM DRAWN BY: J. SANDUSKY CHECKED BY: J. SANDUSKY APPROVED BY: J. SANDUSKY	PROJECT: 00065811 SHEET: 7 OF 7 TITLE: SANDUSKY QUAD: OH-SANDUSKY