From:	Bessingpas, David <David.Bessingpas@arcadis.com>
Sent:	Tuesday, November 23, 2021 2:20 PM
To:	Sager, John E - DNR
Cc:	Klinkhamer, Christopher; cieniawski.scott; Klatt, David/CHC; Endsley, Erin A - DNR; Saari, Christopher A - DNR; Graham, Joseph R - DNR; Fassbender, Judy L - DNR; Patarcity, Jane (Pittsburgh) USA (Jane.Patarcity@TRMI.Biz); Stuart Messur; Seaman, Jennifer/CHC; Selcoe, Barrie/HOU; Pfeiffer, Danielle; Anderson, Paul; Preto, Lauren; Koch, Amanda A - DHS; Kilburg-Basnyat, Brita J - DHS; Justin Drehs
Subject:	RE: Presentation and Spreadsheet from Today's Call
Attachments:	2021-11-10 Crawford Creek Video Working Session_SLIDES.pdf; 2021-11-10 Crawford Creek Video Working Session_NOTES.pdf; Potential Point by Point Data Screening Approach.xlsx

Hello,

As a follow-up to our 11/10/21 call, the following are attached:

- Copy of PowerPoint slides from the Nov. 10 call
- Meeting notes/minutes from the Nov. 10 call
- Excel file with the CUL/risk evaluation approach table that we walked through during the Nov. 10 call

A couple of notes regarding the attached table:

- The “Portion of Polygon with Visual Impacts?” column has only been filled out for samples in the two “focus areas” that we discussed during the Nov. 10 call.
- The two “Only 1 individual compound > 1E-6 and results are ≤2E-6?” columns have been changed to “More than 1 individual compound with risk > 1E-6, or 1 individual compound with risk > 2E-6?” In making that change, “Yes” results are now shaded orange instead of the “No” results. These changes were made to consistently use “Yes” answers (and shaded cells) to represent samples that are “in” for further consideration based on a given criteria.

In the approach presented during the November 10th call, DNR’s recreator CULs and associated risk-based exposure assumptions were used for surficial floodplain materials (0-0.5 feet), as these materials represent the depth interval most likely to be contacted by recreators who may visit the floodplain. Based on the responses of residents and general location and characteristics of the floodplain, the application of the DNR recreator CULs/assumptions to the 0-0.5’ depth interval is conservative and protective of human health.

For subsurface floodplain materials (below 0.5 feet), the approach presented during the November 10th call used Site-specific recreator CULs and associated risk-based exposure assumptions. For the record, supporting rationale for the use of Site-specific CULs/assumptions for evaluation of subsurface floodplain materials is as follows:

- Given observations over the past 20+ years, responses of the residents, and activities prohibited in the floodplain by Wisconsin laws/regulations, contact with subsurface floodplain materials (>0.5 feet) is expected to be lower than contact with surficial floodplain materials (0-0.5 feet).
- To account for the lower expected exposure to subsurface floodplain materials, the approach presented during the November 10 call included the use of site-specific CULs and risk-based exposure assumptions for floodplain materials below 0.5 feet. These site-specific CULs/assumptions were first presented to DNR during a May 26, 2021 call and were determined using the same assumptions as the DNR recreator CULs (including Exposure Frequency = 175 days and Exposure Time = 4 hours), except for including a Fraction Intake (FI) term of 0.25. The FI term accounts for the fact that although people may be outside for 175 days/year and 4 hours each time, people do not spend their entire outside time in the floodplain , and that not all of a person's daily outdoor dermal and ingestion soil exposure comes from the floodplain. As noted during the May 26th call, the use of an FI term of 0.25 is supported by two lines of evidence:
    - The floodplain comprises about 25% (or less) of adjoining resident's properties, so even if residents spent an equal amount of time on all sections of their property, about 25% of their time would be spent in the floodplain (refer to Slide 18 from 5/26/21 presentation); and
    - Responses of the residents indicate that when they visit the floodplain, they typically spend 1 hour or less in the floodplain per visit (1 hour in the floodplain out of 4 hours total spent outside = 0.25; refer to Slide 19 from 5/26/21 presentation).
- We believe that the application of site-specific CULs and risk-based exposure assumptions to floodplain materials below 0.5 feet is conservative and protective of human health. This approach assumes a receptor is exposed to a single sample location and depth interval for 1 hour per day, 175 days per year, for 24 years (ages 2-26), which is a highly unlikely scenario.
- It also bears mentioning that the site-specific CUL for TCDD-TEQ (52.4 ng/kg) used in the proposed screening approach is very similar to the non-cancer Regional Screening Level for TCDD (51 ng/kg) that USEPA considers acceptable and protective of surface soils in residential yards at CERCLA and RCRA sites.

Thanks, Dave

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From: Sager, John E - DNR <John.Sager@wisconsin.gov>
Sent: Wednesday, November 10, 2021 3:54 PM
To: Bessingpas, David <David.Bessingpas@arcadis.com>
Cc: Klinkhamer, Christopher <Klinkhamer.Christopher@epa.gov>; cieniawski.scott <cieniawski.scott@epa.gov>; Klatt, David/CHC <David.Klatt@jacobs.com>; Endsley, Erin A - DNR <erin.endsley@wisconsin.gov>; Saari, Christopher A - DNR <Christopher.Saari@wisconsin.gov>; Graham, Joseph R - DNR <Joseph.Graham@wisconsin.gov>; Fassbender, Judy L - DNR <Judy.Fassbender@wisconsin.gov>
Subject: Presentation and Spreadsheet from Today's Call

Dave,

Please send us a copy of the presentation and the spreadsheet from today's meeting as soon as possible. Erin has a call scheduled with DHS to discuss the application of the proposed criteria below .5 feet. We hope to give you feedback as soon as possible so you can continue with your evaluation.

Thanks.

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Meeting Date: 11/10/2021 1:00-3:00 PM
Location: Microsoft Teams Meeting
Invitation Message: Crawford Creek Video Working Session
Participants

Klatt, David/CHC (Jacobs)
Klinkhamer, Christopher (EPA)
Cieniawski, Scott (EPA)
'Patarcity, Jane M (Manor Oak) USA (Beazer)
Bessingpas, David (Arcadis)
Stuart Messur (Anchor QEA)
Seaman, Jennifer/CHC (Jacobs)
Selcoe, Barrie/HOU (Jacobs)
Pfeiffer, Danielle (Arcadis)
Anderson, Paul (Arcadis)
Preto, Lauren (Jacobs)
Graham, Joseph R - DNR (WDNR)
Saari, Christopher A - DNR (WDNR)
Sager, John E - DNR (WDNR)
Endsley, Erin A - (WDNR)
Judy.Fassbender (WDNR)
Koch, Amanda A - (WDHS)
Kilburg-Basnyat, Brita J (WDHS)
Justin Drehs (Anchor QEA)

Meeting Notes: See Powerpoint Presentation for content (excluding Summary Table - to be provided separately). Figures were already provided via shared network.

Introduction (Slide 1) - Dave K.

- Working session- 2nd Meeting as a Follow up to October 29 Call.
- Presentation information will be provided to WDNR.

Opening Remarks (Slide 2)

- Chris K. - Thanks for participating today. This is a complex site: goal of meeting is to walk through site complexities and see where flexibility may be applied.

Safety Moment, Agenda, and Meeting Objectives (Slides 3,4,5)

- Dave K. Summarized Agenda, and Meeting Objectives.
- Chris S. – Some uncertainty about what is being asked of WDNR today.
- Judy F. - What is our goal to have at the end of today?
- Stu M.- The team pulled together a lot of information including WDNR-requested iso-contour maps. We acknowledge prior WDNR feedback. Plan to go through the focus areas point-by-point and look at data to see if WDNR has input on the approach we are proposing and where flexibility exists.
- Joe G. – There is value in a point-by-point discussion, but WDNR can't definitively provide answer on every point during a call like this. The "General decision criteria" mentioned in the October 29 call were unclear.

- Dave B./Dave K./Stu M. - It will be clearer as we dive into the details of this working session. The group realizes that WDNR may not be able to give final answers/decisions today.

Data Evaluation Approach (Slides 6-10)

- Dave K. Highlighted focus areas and information sources utilized.
- Dave B. - Footprint of materials for consideration initially based on WDNR recreator CULs and visual NAPL impacts. Refinement to footprint based on individual and cumulative risk targets per NR 720.12. Propose to apply additional risk target flexibility and request WDNR input (see slide 9). This framework is intended to identify the footprint to consider for remedial action approaches.
- Dave K. – (Slide 10) Additional lines of evidence will be applied for FFS alternative development. These types of evaluations will occur after we address the point-by-point comparisons described today. Dave B. added that the additional lines of evidence on slide 10 are anticipated to be applied after the footprint is established through the process on slide 9.

Point-by-Point Data Evaluation- Tables and Figures (presented by Dave B. with input from others)

- Focus Area 1
  - Screening process steps for 0 to 0.5 ft depth interval:
    1. Visual impacts.
       - Portions of sample polygons with visual impacts screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (cells shaded in yellow and denoted as "Yes" in the "Portion of Polygon with Visual Impacts?" column of the table).
    2. Compare BaP and TCDD-TEQ concentration to DNR recreator CULs.
       - Samples with BaP and TCDD-TEQ concentration ≤ DNR recreator CULs screen out (cells not shaded in the table).
       - Samples with BaP or TCDD-TEQ concentrations > DNR recreator CULs continue to next step of screening process (cells shaded either orange or brown; orange shading indicates exceedance of DNR recreator CUL, brown shading indicates exceedance of both DNR recreator and site-specific recreator CULs).
    3. Compare cumulative and individual compound risks estimated using DNR recreator CUL assumptions to NR 720.12 target risks (cumulative risk ≤ $1x10^{-5}$, individual compound risk ≤ $1x10^{-6}$).
       - Samples with cumulative risk > $1x10^{-5}$ screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (shaded in brown in the "Cumulative Risk" column of the table).
       - Samples with cumulative risk ≤ $1x10^{-5}$ and all individual compounds with risk of ≤ $1x10^{-6}$ screen out (cells with no shading in either of the "Cumulative Risk" and "Max Individual Compound Risk" columns of the table).
       - Samples with cumulative risk ≤ $1x10^{-5}$ and at least one individual compound with risk > $1x10^{-6}$ continue to the next step of the screening process (cells not shaded in the "Cumulative Risk" column but shaded in orange or brown in the "Max Individual Compound Risk" column in the table (orange shading indicates the sample has at least one compound with risk > $1x10^{-6}$, brown shading indicates the sample has at least one compound with risk > $1x10^{-5}$).
    4. Estimate individual compound risk using DNR recreator CUL assumptions and determine number of compounds exceeding individual compound risk target and magnitude of exceedance. (Note, at this stage of the screening process all samples still in the process have a cumulative risk ≤ $1x10^{-5}$ precluding the need to repeat that comparison.)

- Samples with more than two (2) individual compounds with risk > $1x10^{-6}$ screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (shaded in orange in the "Number of Individual Compounds with Risk > 1E-6" column of the table).
- Samples with only one (1) individual compound with risk > $1x10^{-6}$ but ≤ $2x10^{-6}$ screen out (cells shaded in orange in the "Number of Individual Compounds with Risk > 1E-6" column of the table but not shaded in the "Number of Individual Compounds with Risk > 1E-6" column in the table).
- Samples with one (1) or more individual compound with risk > $2x10^{-6}$ screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (cells shaded in orange or brown in the "Max Individual Compound Risk" column in the table and shaded in orange in "Number of Individual Compounds with Risk > 1E-6" column of the table).

5. CUL and risk-based screening summary. The column "Only 1 individual compound > 1E-6 and results are ≤ 2E-6" summarizes the outcome of the CUL and risk-based screening.
   - Cells shaded orange and denoted "No" in the "Only 1 individual compound > 1E-6 and results are ≤ 2E-6" column of the table indicate that a sample screens in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS.
   - Unshaded cells and denoted "Yes" of "N/A" in the "Only 1 individual compound > 1E-6 and results are ≤ 2E-6" column of the table indicate that a sample screens out based on the CUL and target risk comparisons. Note: portions of a polygon that screens out based on the CUL and target risk comparisons may still screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS if visual impacts were observed (the sample is shaded orange in the "Portion of Polygon with Visual Impacts?" column of the table; refer to Step 1 above.

- Discussion
  - John S**.** - What is the basis for the brown shading at 4x CUL? Dave B. and Paul A. - matches closely to site-specific risk criteria provided previously.
  - Dani P. - BaP exceedances show 10^{-6} risk.
  - Dave B. walked through the risk-based screening process of all 0-0.5' samples in Focus Area 1. Of the 11 0-0.5' samples in Focus Area 1, the following samples remain "in" for FFS consideration, based on the risk screening: SO-C04, SO-C12, T-1
  - John S. - what is the basis for use of 2 x 10^{-6} screening criteria? Paul A. – A general level for comparison that is slightly above the individual compounds target risk.
  - Judy F. – Table is a bit confusing as to what is considered "in/out". Stu M. – We can make it easier to follow; focus on colors for now.

- Screening process steps for depth intervals between 0.5 and 4 ft.
  1. Visual impacts.
     - Same as Step 1 for 0 to 0.5 ft depth interval.
  2. Compare BaP and TCDD-TEQ concentration to DNR recreator CULs.
     - Same as Step 2 for 0 to 0.5 ft depth interval.
  3. Compare cumulative and individual compound risks to NR 720.12 targets (cumulative risk ≤ $1x10^{-5}$, individual compound risk ≤ $1x10^{-6}$).
     - Same as Step 3 for 0 to 0.5 ft depth interval.
  4. Determine number of compounds exceeding individual compound risk target and magnitude of exceedance of individual risk target.
     - Same as Steps 4 and 5 for 0 to 0.5 ft depth interval.

5. Compare cumulative and individual compound risks estimated using site-specific CUL assumptions (same as DNR assumptions except FI = 0.25 instead of 1.0) to NR 720.12 target risks (cumulative risk ≤ $1x10^{-5}$, individual compound risk ≤ $1x10^{-6}$).
    - Samples with cumulative risk > $1x10^{-5}$ screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (shaded in brown in the "Cumulative Risk" column of the table).
    - Samples with cumulative risk ≤ $1x10^{-5}$ and all individual compounds with risk of ≤ $1x10^{-6}$ screen out (cells with no shading in either of the "Cumulative Risk" and "Max Individual Compound Risk" columns of the table).
    - Samples with cumulative risk ≤ $1x10^{-5}$ and at least one individual compound with risk > $1x10^{-6}$ continue to the next step of the screening process (cells not shaded in the "Cumulative Risk" column but shaded in orange or brown in the "Max Individual Compound Risk" column in the table.
6. Estimate individual compound risk using site-specific recreator CUL assumptions and determine number of compounds exceeding individual compound risk target and magnitude of exceedance.
    - Samples with more than two (2) individual compounds with risk > $1x10^{-6}$ screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (shaded in orange in the "Number of Individual Compounds with Risk > 1E-6" column of the table).
    - Samples with only one (1) individual compound with risk > $1x10^{-6}$ but ≤ $2x10^{-6}$ screen out (cells shaded in orange in the "Number of Individual Compounds with Risk > 1E-6" column of the table but not shaded in the "Number of Individual Compounds with Risk > 1E-6" column in the table).
    - Samples with one (1) or more individual compounds with risk > $2x10^{-6}$ screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS (cells shaded in orange or brown in the "Max Individual Compound Risk" column in the table and shaded in orange in "Number of Individual Compounds with Risk > 1E-6" column of the table).
7. CUL and risk-based screening summary. The column "Only 1 individual compound > 1E-6 and results are ≤ 2E-6" summarizes the outcome of the CUL and risk-based screening.
    - Cells shaded orange and denoted "No" in the "Only 1 individual compound > 1E-6 and results are ≤ 2E-6" column of the table indicate that a sample screens in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS.
    - Unshaded cells and denoted "Yes" of "N/A" in the "Only 1 individual compound > 1E-6 and results are ≤ 2E-6" column of the table indicate that a sample screens out based on the CUL and target risk comparisons. Note: portions of a polygon that screens out based on the CUL and target risk comparisons may still screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS if visual impacts were observed (the sample is shaded orange in the "Portion of Polygon with Visual Impacts?" column of the table; refer to Step 1 above.

- 0.5-4' Screening Results:
    - SO-C04: All of the intervals below 6 inches are "out" for FFS consideration.
    - SO-C12: All depths carry through as "in" for FFS consideration.
    - T-1 is captured within SO-C01 polygon for depth intervals below 0.5 feet.

- Joe G**.** – Asked why polygons were used and how they were generated. Dave B. - Polygons are different for each interval based on available samples in depth intervals.
- SO-C01: 0 to 0.5 ft exceeds WDNR recreator CUL for TCDD,-TEQ, but is screened out because it meets target risk levels. Samples below 0.5 ft are screened out because they do not exceed WDNR recreator CULs.
- SO-C02 (0.5 to 1 ft) – Exceeds WDNR recreator CULs and does not meet risk-based criteria determined based on WDNR recreator CUL exposure assumptions, but screened "out" from consideration because it meets risk-based criteria determined based on site-specific CUL exposure assumptions (FI=0.25) that are applied below 6 inches.
- SO-C02 (1 to 2 ft and 2 to 4 ft): Levels do not exceed risk-based screening levels, but some portions of polygons have visual impacts that screen in for inclusion in the footprint of the portions of the floodplain to be considered in the FFS.
- SO-C03: 0 to 0.5 ft screened out because it meets risk-based criteria (only 1 compound exceeds 1E-6 target risk and actual risk is ≤ 2E-6). Samples below 0.5 ft meet risk-based criteria, so initially screened "out"; however, 2-4 ft depth interval has visual impacts, so a portion of the polygon would be retained as "in" for consideration.
- TMW-C01: 1.2-2.5 ft carried through to FFS. Exceeds risk levels, including site-specific.

o Discussion:
- Erin E. – Described process makes sense. Group has not decided that polygons are the best decision unit approach. Polygon shapes may not correlate well with the conceptual site model or remedial approach.
- Dave B. – Once we agree on what points are "in" for consideration, we will apply polygons and other factors to come up with footprint for evaluation. Stu M. – Used polygons approach but can refine areas using iso-concentration maps. It is easiest to use the polygons for the FFS.
- John S. - Applying one point over entire polygon leads to an outcome that areas may be artificially large. Could lead to ruling out remedial options when the true impacted area might not include entire polygon. Stu M. indicated that we don't want to underestimate the volumes, so we still need to discuss this point.

- Focus Area 2
  - o Depth Interval 0 to 0.5 ft
    - All samples meet cumulative and individual risk criteria, so all screened out.
  - o Depth Intervals greater than 0.5 ft.
    - SO-C09 and SO-C11 had some visual impacts that are "in".
    - Discussed location FP23-30L with elevated benzo(a)pyrene as "in".
    - Also looked at figure with the "cookies" showing other data points. See below for additional ending discussion of overall approach.

Ending Discussion of Overall Approach:

- Erin E. - Approach make sense. Reiterated concerns of applying point-by-point across polygons and creating large areas, that are a function of the sampling density. Need to consider limitations of using polygon approach. Consider the CSM and items such as the former tributary in making maps of the footprint areas. Suggest ways to modify the polygon boundaries. Erin acknowledges there are limitations to both methods (polygons and iso-concentrations). Paul A. asks how to better refine area.
- John S. - Understands the approach and it makes sense, as long as WDNR CULs are presented along with the site-specific CULs (pending further discussion). Concerned that location FP23-30L with

elevated benzo(a)pyrene is estimated to cover a very large polygon, when in reality it may be a small area. Use of visual impacts may help. Any pre-design investigation (PDI) would be "after the fact", i.e., after remedy is selected in FFS. Concern is that inflated volumes would lead to decision that remedial action is not feasible or too costly. Agreed that this approach is a starting point. There are similar issues with using iso-concentration maps because of how they are developed by models. John wants to see the approach applied across the entire Site to see how it shakes out.

- Scott S. – We are never working with perfect data set. Need to layer some logic over the top. But we do have enough data and information for the FFS. During FS, we will identify areas with higher uncertainties that could have impact on the cost of remedy – possibly target for PDI. EPA does not have the desire or schedule to consider another round of sampling prior to completing FFS.
- Erin E. – Requested the table presenting the point-by-point comparison. Dave B agrees to share this.
- Dave B. – re-summarizes screening approach per Joe G. request.
- Erin E. – WDNR will need to have further discussion on site-specific exposure assumptions at greater than 0.5 ft. WDNR will want to discuss with DHS before agreeing to it.
- Joe G./John S. – Consider depth/elevations and scour potential as well. Dave B - Other factors come into play once footprint has been established. John thinks these other considerations can help define footprint. Show creek bed in relation to culvert. How deep can creek be scoured? Combine this information into what alternatives can be implemented. Look at other lines of evidence to shrink the footprint for consideration in the FFS.
- Judy F. - Look at the CSM and consider hydraulic control, grain size analysis, and how we think that the contamination got to where it did.
- Dave B. - Acknowledged the comments from John, Joe, and Judy, and said we would consider them as we prepare footprint figures. We will apply the general approach to the rest of the area and consider other lines of evidence.
- Chris S. - Asked for timeframe of when we will reconvene. Jane P. indicates that we will get back to them on timetable. Scott C. says it will be “soon”.

Jacobs Challenging today. Reinventing tomorrow.

Crawford Creek and Tributary, Great Lakes Legacy Act (GLLA) Focused Feasibility Study (FFS) Project
November 10, 2021
Working Session with WDNR

Opening Remarks

Agenda

1. **Safety Moment**
2. **Meeting Objectives**
3. **Area B/C Floodplain Data Evaluation – Working Session**
   A. Focus Area Map and Locations
   B. Available Information Sources
   C. Summary of Potential Additional Point-by-Point Data Screening Approach and Lines of Evidence
   D. Review Specific Data Points Using Summary Table and Supporting Figures
4. **Next Steps**

Safety Moment

- A few things to remember about the **switch back to standard time**:
- **Accidents**. Evidence suggests that time changes increase safety problems at work and at home. For example, studies have documented a 3.5% to 10% increase in traffic crashes during the week that follows the time change. "Just being aware of the increased risk of accidents in the period immediately following the time change may help you stay alert,"
- **Fatigue**. Studies suggest that it takes people who work traditional hours several days to fully readjust their sleep schedule after the time change. There is a physiological consequence to changing our clocks. So don't be surprised if you feel a bit sluggish for the first week or so of November. It is normal.
- **Home safety**. This is a good time to check batteries in smoke and carbon monoxide detectors. Changing batteries twice each year, at the time change, ensures that the detectors will work properly in case of an emergency.

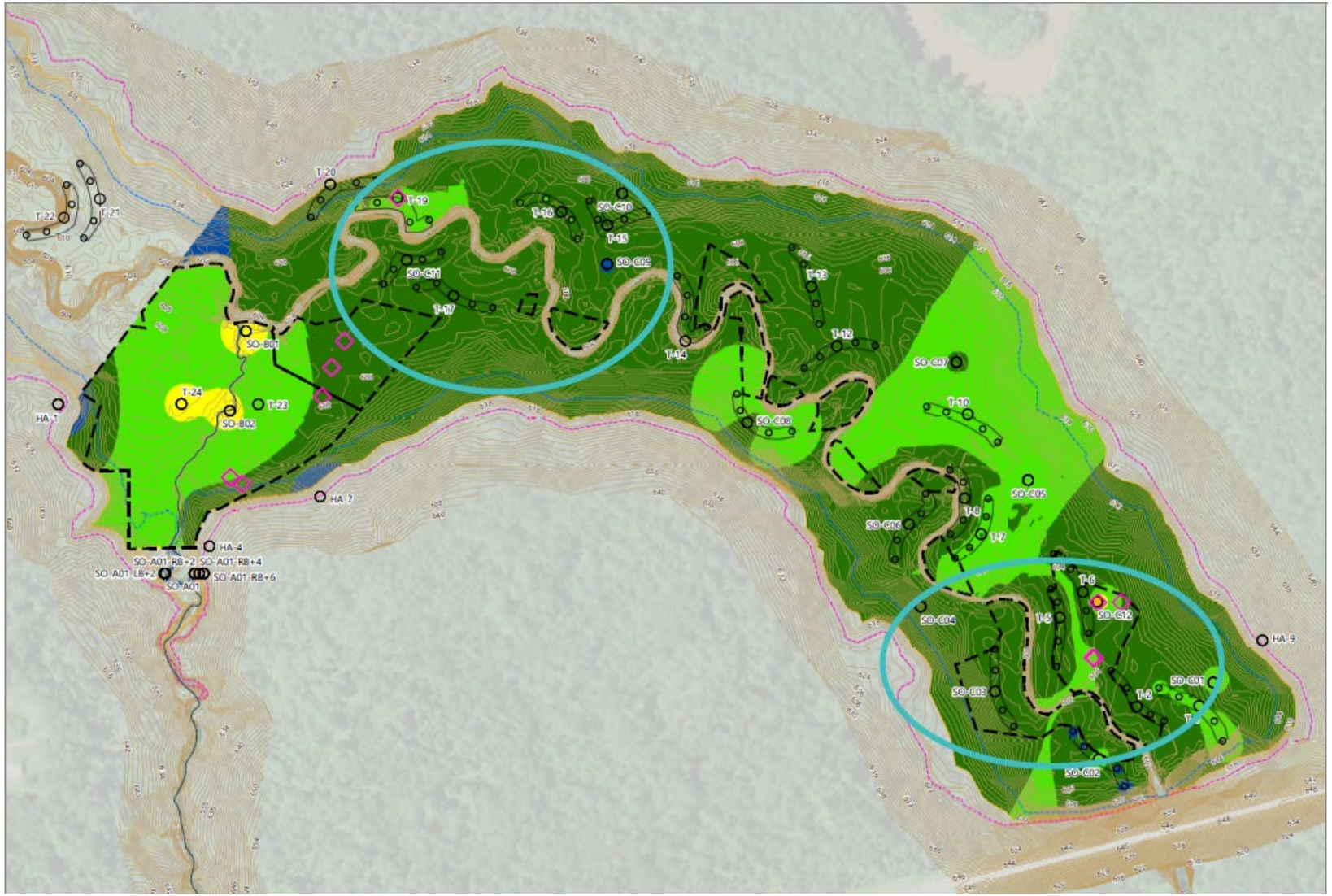
Meeting Objectives

- Describe and evaluate elements of a potential additional point-by-point data screening approach and lines of evidence to identify floodplain materials to be evaluated in the FFS
- Determine WDNR flexibility in applying point-by-point comparison to WDNR CULs
- Intent of this call is not to discuss details of remedial technologies or alternatives

Area B/C Data Evaluation - Working Session

A. Focus Area Map and Example Locations
B. Available Information Sources
C. Elements of Potential Additional Point-by-Point Data Screening Approach and Lines of Evidence
D. Review Specific Data Points Using Summary Table and Supporting Figures

Suggested Working Session Focus Areas



Available Information Sources

- Multiple Investigations dating back to 1990s;
- Historical data evaluated by the collective team and summarized in the Data Gap Evaluation Technical Memorandum (June 2019)
- Led to Supplemental Data Gap Investigation (DGI) Work Plan (Sept. 2019), Fieldwork (2020) and Summary Report (April 2021)
- April 2021 DGI Report includes comprehensive data summary
- We can access older information sources and Web-based GIS, as necessary

Potential Additional Point-by-Point Data Evaluation Approach

1. Initial identification of areas represented by samples/locations exceeding WDNR Recreator CULs for benzo(a)pyrene and TCDD-TEQ, plus locations with visual impacts
2. Refinement of CUL exceedance areas based on estimated potential risks:
   - Estimate potential risks for 7 potentially carcinogenic PAHs and 17 dioxin/furan congeners
   - Cumulative and individual compound risks expressed to one significant figure, consistent with target risks specified in NR 720.12
   - Proposed decision criteria:
     - Cumulative risk > $1x10^{-5}$ (consistent with NR 720.12)
     - Individual compounds with risk > $1x10^{-6}$ (consistent with NR 720.12)
   - Potential risk target flexibility
     - Individual cPAHs > $1x10^{-5}$
     - Cumulative risk ≤ $1x10^{-5}$ but two or more individual compounds with risk > $1x10^{-6}$ or a single compound with risk > $2x10^{-6}$
     - Consideration of site-specific CUL assumptions for deeper floodplain materials (> 0.5')

Additional Lines of Evidence To Be Considered For Alternative Development in the FFS

- The location and quality of wetland habitat as well as the desire to preserve habitat that will be difficult to replace
- Topographic contours
- Stream and floodplain hydrology/stability
- The potential for threatened or endangered species/habitat
- Iso-contour maps

Review Specific Data Points Using Summary Table and Supporting Figures

Next Steps

Any WDNR questions or information requests for Beazer/EPA at this time?

Table. Potential Point by Point Data Screening Approach

DRAFT WORKING VERSION

Sample ID	Sample Depth (ft)	Depth Interval Category	Site Area	Focus Areas	Portion of Polygon with Visual Impacts? (Yes:No:Blank) (Orange = Yes)	BaP (Orange > 0.509 mg/kg) (Brown>2.04 mg/kg)
CF-01-A	0 - 0.5	0 - 0.5	D			0.0236
CF-01-A	0.5 - 1	0.5 - 1	D			0.278
CF-01-B	0 - 0.5	0 - 0.5	D			0.142
CF-01-B	0.5 - 0.9	0.5 - 1	D			62.9
CF-01-C	0 - 0.7	0 - 0.5	D			4.81
CF-01-D	0 - 0.5	0 - 0.5	D			0.00730
CF-01-D	0.5 - 1.1	0.5 - 1	D			0.901
CF-02-B	0 - 0.5	0 - 0.5	D			0.00590
CF-02-B	0.5 - 1.6	0.5 - 1	D			0.0654
CF-02-C	0 - 0.8	0 - 0.5	D			0.0478
CF-03-A	0 - 0.5	0 - 0.5	D			0.00510
CF-03-A	0.5 - 1.3	0.5 - 1	D			0.00540
CF-03-C	0 - 0.5	0 - 0.5	D			0.172
CF-03-C	0.5 - 1.3	0.5 - 1	D			4.05
CF-03-E	0 - 0.5	0 - 0.5	D			0.00105
CF-03-E	0.5 - 1.2	0.5 - 1	D			0.00810
CF-04-B	0 - 0.5	0 - 0.5	D			0.0610
CF-04-B	0.5 - 1.3	0.5 - 1	D			0.0983
CF-05-B	0 - 0.5	0 - 0.5	D			0.00700
CF-05-B	0.5 - 0.9	0.5 - 1	D			8.24
CF-05-C	0 - 0.6	0 - 0.5	D			0.893
CF-05-D	0 - 0.5	0 - 0.5	D			0.00740
CF-05-D	0.5 - 0.9	0.5 - 1	D			0.00750
CF-06-A	0 - 0.5	0 - 0.5	D			0.00115
CF-06-A	0.5 - 1.8	0.5 - 1	D			0.00600
CF-06-B	0 - 0.6	0 - 0.5	D			0.00290
CF-06-D	0 - 0.8	0 - 0.5	D			0.00520
CF-07-A	0 - 0.8	0 - 0.5	D			0.00350
CF-07-B	0 - 0.7	0 - 0.5	D			0.00230
CF-08-D	0 - 0.7	0 - 0.5	D			0.00410
CF-09-A	0 - 0.8	0 - 0.5	D			0.000900
CF-10-B	0 - 0.5	0 - 0.5	D			0.000950
CF-10-B	0.5 - 1.3	0.5 - 1	D			0.00460
FP-01	0 - 0.5	0 - 0.5	D			0.00510
FP-01	0.5 - 1.2	0.5 - 1	D			1.04
FP11-5'L	0.5 - 1	0.5 - 1	A			0.250
FP11-5'L	1 - 1.5	1 - 2	A			0.165

FP11-5'R	0.5 - 1	0.5 - 1	A			0.0300
FP11-5'R	1 - 1.5	1 - 2	A			0.165
FP14-25'R	0.5 - 1	0.5 - 1	B			0.670
FP14-25'R	1 - 1.5	1 - 2	B			65.0
FP14-5'L	0.5 - 1	0.5 - 1	B			3.60
FP14-5'L	1 - 1.5	1 - 2	B			3.00
FP14-5'R	0.5 - 1	0.5 - 1	B			230
FP14-5'R	1 - 1.5	1 - 2	B			22.0
FP14-75'R	0.5 - 1	0.5 - 1	B			0.0750
FP14-75'R	1 - 1.5	1 - 2	B			0.0640
FP15-125'L	0.5 - 1	0.5 - 1	B			43.0
FP15-125'L	1 - 1.5	1 - 2	B			0.480
FP15-125'R	0.5 - 1	0.5 - 1	B			0.160
FP15-125'R	1 - 1.5	1 - 2	B			0.165
FP15-175'R	0.5 - 1	0.5 - 1	B			120
FP15-175'R	1 - 1.5	1 - 2	B			29.5
FP15-50'R	1.2 - 2.2	1 - 2	B			1100
FP15-75'L	0.5 - 1	0.5 - 1	B			0.740
FP15-75'L	1 - 1.5	1 - 2	B			240
FP18-15'L	0.5 - 1	0.5 - 1	B			0.165
FP18-15'L	1 - 1.5	1 - 2	B			0.165
FP18-15'R	0.5 - 1	0.5 - 1	B			0.165
FP18-15'R	1 - 1.5	1 - 2	B			0.0280
FP18-30'L	0.5 - 1	0.5 - 1	B			0.810
FP18-30'L	1 - 1.5	1 - 2	B			0.260
FP18-30'R	0.5 - 1	0.5 - 1	B			0.670
FP18-30'R	1 - 1.5	1 - 2	B			0.165
FP23-15'L	0.5 - 1	0.5 - 1	C	FA-2	No	5.70
FP23-15'L	1 - 1.5	1 - 2	C	FA-2	No	110
FP23-15'R	0.5 - 1	0.5 - 1	C	FA-2	No	0.0270
FP23-15'R	1 - 1.5	1 - 2	C	FA-2	No	0.165
FP23-30'L	0.5 - 1	0.5 - 1	C	FA-2	No	1.50
FP23-30'L	1 - 1.5	1 - 2	C	FA-2	Yes	850
FP23-30'R	0.5 - 1	0.5 - 1	C	FA-2	No	0.165
FP23-30'R	1 - 1.5	1 - 2	C	FA-2	No	0.165
FP29-15'L	0.5 - 1	0.5 - 1	C			0.165
FP29-15'L	1 - 1.5	1 - 2	C			4.60
FP29-15'R	0.5 - 1	0.5 - 1	C			0.0420
FP29-15'R	1 - 1.5	1 - 2	C			0.165
FP29-30'L	0.5 - 1	0.5 - 1	C			0.0850
FP29-30'L	1 - 1.5	1 - 2	C			6.70
FP29-30'R	0.5 - 1	0.5 - 1	C			0.0320
FP29-30'R	1 - 1.5	1 - 2	C			0.165
FP33-15'L	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP33-15'L	1 - 1.5	1 - 2	C	FA-1	No	2.60
FP33-15'R	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP33-15'R	1 - 1.5	1 - 2	C	FA-1	No	0.330

FP33-30'L	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP33-30'L	1 - 1.5	1 - 2	C	FA-1	No	0.830
FP33-30'R	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP33-30'R	1 - 1.5	1 - 2	C	FA-1	Yes	0.170
FP34-15'L	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP34-15'L	1 - 1.5	1 - 2	C	FA-1	Yes	0.440
FP34-15'R	0.5 - 1	0.5 - 1	C	FA-1	No	0.850
FP34-15'R	1 - 1.5	1 - 2	C	FA-1	No	3.20
FP34-30'L	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP34-30'L	1 - 1.5	1 - 2	C	FA-1	Yes	7.60
FP34-30'R	0.5 - 1	0.5 - 1	C	FA-1	No	0.165
FP34-30'R	1 - 1.5	1 - 2	C	FA-1	No	0.260
FP34-5'L	1.5 - 2.5	1 - 2	C	FA-1	Yes	80.0
HA-1	0 - 0.5	0 - 0.5	B			0.0120
HA-1	0.5 - 1	0.5 - 1	B			0.0420
HA-4	0 - 0.5	0 - 0.5	B			0.0425
HA-4	0.5 - 1	0.5 - 1	B			0.0410
HA-7	0 - 0.5	0 - 0.5	C			0.0110
HA-7	0.5 - 1	0.5 - 1	C			0.0415
HA-9	0 - 0.5	0 - 0.5	C			0.0980
HA-9	0.5 - 1	0.5 - 1	C			0.0415
SO-A01	0 - 0.5	0 - 0.5	A			34.0
SO-A01-LB+2	0 - 0.5	0 - 0.5	A			3.10
SO-A01-RB+2	0 - 0.5	0 - 0.5	A			8.10
SO-A01-RB+2	0.5 - 1	0.5 - 1	A			0.620
SO-A01-RB+2	1 - 2	1 - 2	A			0.100
SO-A01-RB+2	2 - 4	2 - 4	A			0.0330
SO-A01-RB+4	0 - 0.5	0 - 0.5	A			0.0760
SO-A01-RB+6	0 - 0.5	0 - 0.5	A			0.0290
SO-A02	0 - 0.5	0 - 0.5	A			14.0
SO-A02-LB+2	0 - 0.5	0 - 0.5	A			530
SO-A02-LB+2	0.5 - 1	0.5 - 1	A			12.0
SO-A02-LB+2	1 - 2	1 - 2	A			0.410
SO-A02-LB+2	2 - 4	2 - 4	A			1.50
SO-A02-LB+4	0 - 0.5	0 - 0.5	A			0.660
SO-A02-LB+6	0 - 0.5	0 - 0.5	A			0.0650
SO-A02-RB+2	0 - 0.5	0 - 0.5	A			0.0380
SO-A03	0 - 0.5	0 - 0.5	A			0.580
SO-A03-LB+2	0 - 0.5	0 - 0.5	A			0.0370
SO-A03-RB+2	0 - 0.5	0 - 0.5	A			93.0
SO-A03-RB+2	0.5 - 1	0.5 - 1	A			94.0
SO-A03-RB+2	1 - 2	1 - 2	A			110
SO-A03-RB+2	2 - 4	2 - 4	A			2.00
SO-A03-RB+4	0 - 0.5	0 - 0.5	A			15.0
SO-A03-RB+6	0 - 0.5	0 - 0.5	A			0.0550
SO-A04	0 - 0.5	0 - 0.5	A			19.0
SO-A04-LB+2	0 - 0.5	0 - 0.5	A			3.10

SO-A04-LB+2	0.5 - 1	0.5 - 1	A			0.100
SO-A04-LB+2	1 - 2	1 - 2	A			0.0215
SO-A04-LB+2	2 - 4	2 - 4	A			0.0150
SO-A04-LB+4	0 - 0.5	0 - 0.5	A			0.0790
SO-A04-LB+6	0 - 0.5	0 - 0.5	A			0.0370
SO-A04-RB+2	0 - 0.5	0 - 0.5	A			0.0480
SO-A05	0 - 0.5	0 - 0.5	A			16.0
SO-A05-LB+2	0 - 0.5	0 - 0.5	A			0.150
SO-A05-RB+2	0 - 0.5	0 - 0.5	A			0.320
SO-A05-RB+2	0.5 - 1	0.5 - 1	A			0.0450
SO-A05-RB+2	1 - 2	1 - 2	A			0.0150
SO-A05-RB+2	2 - 3	2 - 4	A			3.10
SO-A05-RB+4	0 - 0.5	0 - 0.5	A			0.160
SO-A05-RB+6	0 - 0.5	0 - 0.5	A			0.0470
SO-A06	0 - 0.5	0 - 0.5	A			0.0800
SO-A06-LB+2	0 - 0.5	0 - 0.5	A			0.180
SO-A06-LB+2	0.5 - 1	0.5 - 1	A			0.0170
SO-A06-LB+2	1 - 2	1 - 2	A			0.0215
SO-A06-LB+2	2 - 4	2 - 4	A			0.0225
SO-A06-RB+2	0 - 0.5	0 - 0.5	A			0.290
SO-B01	0 - 0.5	0 - 0.5	B			3.30
SO-B01	0.5 - 1	0.5 - 1	B			1.20
SO-B01	1 - 2	1 - 2	B			0.110
SO-B01	2 - 3.7	2 - 4	B			0.180
SO-B02	0 - 0.5	0 - 0.5	B			3.20
SO-B02	0.5 - 1	0.5 - 1	B			9.10
SO-B02	1 - 2	1 - 2	B			26.0
SO-B02	2 - 3	2 - 4	B			40.0
SO-C01	0 - 0.5	0 - 0.5	C	FA-1	No	0.0450
SO-C01	0.5 - 1	0.5 - 1	C	FA-1	No	0.0235
SO-C01	1 - 2	1 - 2	C	FA-1	No	0.0215
SO-C01	2 - 4	2 - 4	C	FA-1	No	0.0220
SO-C02	0 - 0.5	0 - 0.5	C	FA-1	No	0.0230
SO-C02	0.5 - 1	0.5 - 1	C	FA-1	No	0.840
SO-C02	1 - 2	1 - 2	C	FA-1	Yes	0.290
SO-C02	2 - 4	2 - 4	C	FA-1	Yes	0.0610
SO-C02-COMP	0 - 0.5	0 - 0.5	C	FA-1	No	0.0520
SO-C03	0 - 0.5	0 - 0.5	C	FA-1	No	0.270
SO-C03	0.5 - 1	0.5 - 1	C	FA-1	No	0.680
SO-C03	1 - 2	1 - 2	C	FA-1	No	0.310
SO-C03	2 - 4	2 - 4	C	FA-1	Yes	0.0250
SO-C03-COMP	0 - 0.5	0 - 0.5	C	FA-1	No	0.360
SO-C04	0 - 0.5	0 - 0.5	C	FA-1	No	0.130
SO-C04	0.5 - 1	0.5 - 1	C	FA-1	No	0.0170
SO-C04	1 - 2	1 - 2	C	FA-1	No	0.0225
SO-C04	2 - 4	2 - 4	C	FA-1	No	0.0220
SO-C05	0 - 0.5	0 - 0.5	C			0.100

SO-C05	0.5 - 1	0.5 - 1	C			0.290
SO-C05	1 - 2	1 - 2	C			0.120
SO-C05	2 - 4	2 - 4	C			0.0150
SO-C06	0 - 0.5	0 - 0.5	C			0.0280
SO-C06	0.5 - 1	0.5 - 1	C			0.850
SO-C06	1 - 2	1 - 2	C			1.60
SO-C06	2 - 4	2 - 4	C			0.0230
SO-C06-COMP	0 - 0.5	0 - 0.5	C			0.120
SO-C07	0 - 0.5	0 - 0.5	C			0.130
SO-C07	0.5 - 1	0.5 - 1	C			0.760
SO-C07	1 - 2	1 - 2	C			0.0390
SO-C07	2 - 4	2 - 4	C			0.130
SO-C08	0 - 0.5	0 - 0.5	C			0.310
SO-C08	0.5 - 1	0.5 - 1	C			0.0400
SO-C08	1 - 2	1 - 2	C			0.0225
SO-C08	2 - 4	2 - 4	C			0.0215
SO-C08-COMP	0 - 0.5	0 - 0.5	C			0.720
SO-C09	0 - 0.5	0 - 0.5	C	FA-2	No	0.0770
SO-C09	0.5 - 1	0.5 - 1	C	FA-2	No	0.0340
SO-C09	1 - 2	1 - 2	C	FA-2	No	0.270
SO-C09	2 - 4	2 - 4	C	FA-2	Yes	0.0235
SO-C10	0 - 0.5	0 - 0.5	C	FA-2	No	0.160
SO-C10	0.5 - 1	0.5 - 1	C	FA-2	No	0.0150
SO-C10	1 - 2	1 - 2	C	FA-2	No	0.0230
SO-C10	2 - 4	2 - 4	C	FA-2	No	0.0220
SO-C11	0 - 0.5	0 - 0.5	C	FA-2	Yes	0.150
SO-C11	0.5 - 1	0.5 - 1	C	FA-2	No	0.150
SO-C11	1 - 2	1 - 2	C	FA-2	Yes	0.300
SO-C11	2 - 4	2 - 4	C	FA-2	Yes	1.10
SO-C11-COMP	0 - 0.5	0 - 0.5	C	FA-2	Yes	0.150
SO-C12	0 - 0.5	0 - 0.5	C	FA-1	Yes	18.0
SO-C12	0.5 - 1	0.5 - 1	C	FA-1	Yes	160
SO-C12	1 - 1.75	1 - 2	C	FA-1	Yes	17.0
SO-C12	2.5 - 4	2 - 4	C	FA-1	Yes	43.0
SO-D01	0 - 0.5	0 - 0.5	D			0.0200
SO-D01	0.5 - 1	0.5 - 1	D			0.0100
SO-D01	1 - 2	1 - 2	D			0.0190
SO-D02	0 - 0.5	0 - 0.5	D			0.0195
SO-D02	0.5 - 1	0.5 - 1	D			0.0200
SO-D02	1 - 2	1 - 2	D			0.0200
SO-D03	0 - 0.5	0 - 0.5	D			0.0220
SO-D03	0.5 - 1	0.5 - 1	D			0.0400
SO-D03	1 - 2	1 - 2	D			0.0260
SO-D04	0 - 0.5	0 - 0.5	D			0.450
SO-D04	0.5 - 1	0.5 - 1	D			1.60
SO-D04	1 - 2	1 - 2	D			9.00
SO-D05	0 - 0.5	0 - 0.5	D			0.370

SO-D05	0.5 - 1	0.5 - 1	D			0.150
SO-D05	1 - 2	1 - 2	D			3.50
SO-D06	0 - 0.5	0 - 0.5	D			0.0470
SO-D06	0.5 - 1.3	0.5 - 1	D			2.10
SO-D06	1.3 - 2.1	1 - 2	D			180
SO-D06	2.5 - 3.5	2 - 4	D			12.0
T-1	0 - 0.5	0 - 0.5	C	FA-1	No	0.720
T-10	0 - 0.5	0 - 0.5	C			0.0740
T-12	0 - 0.5	0 - 0.5	C			0.0230
T-13	0 - 0.5	0 - 0.5	C			0.0530
T-14	0 - 0.5	0 - 0.5	C			0.160
T-15	0 - 0.5	0 - 0.5	C	FA-2	No	0.300
T-16	0 - 0.5	0 - 0.5	C	FA-2	No	0.310
T-17	0 - 0.5	0 - 0.5	C	FA-2	No	0.0450
T-19	0 - 0.5	0 - 0.5	C	FA-2	No (odor?)	0.600
T-2	0 - 0.5	0 - 0.5	C	FA-1	Yes	0.140
T-20	0 - 0.5	0 - 0.5	C			0.230
T-23	0 - 0.5	0 - 0.5	B			1.20
T-24	0 - 0.5	0 - 0.5	B			2.50
T-5	0 - 0.5	0 - 0.5	C	FA-1	No	0.0130
T-6	0 - 0.5	0 - 0.5	C	FA-1	No	0.180
T-7	0 - 0.5	0 - 0.5	C			0.0930
T-8	0 - 0.5	0 - 0.5	C			0.210
TMW-C01	1.2 - 2.5	1 - 2	C	FA-1	Yes	380
TMW-C02	2.2 - 2.6	2 - 4	C			61.0

	WDNR Recreator CUL Exposure Assun			
TCDD-TEQ (Orange > 13 ng/kg) (Brown> 52.4 ng/kg)	**Cumulative Risk** (Brown >1E-5)	**Max Individual Compound Risk** (Orange > 1E-6) (Brown > 1E-5)	**Max Individual cPAH Risk** (Orange > 1E-6) (Brown > 1E-5)	**Max Individual D/F Risk** (Orange > 1E-6) (Brown > 1E-5)
9.35	8E-07	2E-07	5E-08	2E-07
2.41	1E-06	5E-07	5E-07	7E-08
19.2	2E-06	5E-07	3E-07	5E-07
167	2E-04	1E-04	1E-04	5E-06
326	4E-05	9E-06	9E-06	7E-06
2.25	2E-07	5E-08	1E-08	5E-08
158	2E-05	4E-06	2E-06	4E-06
7.51	6E-07	2E-07	1E-08	2E-07
29.2	2E-06	7E-07	1E-07	7E-07
6.41	7E-07	2E-07	9E-08	2E-07
2.28	2E-07	6E-08	1E-08	6E-08
22.6	2E-06	7E-07	1E-08	7E-07
14.4	2E-06	4E-07	3E-07	4E-07
10.5	1E-05	8E-06	8E-06	3E-07
0.909	7E-08	2E-08	2E-09	2E-08
4.90	4E-07	1E-07	2E-08	1E-07
2.57	4E-07	1E-07	1E-07	7E-08
9.71	1E-06	2E-07	2E-07	2E-07
4.01	3E-07	1E-07	1E-08	1E-07
41.2	3E-05	2E-05	2E-05	1E-06
31.3	5E-06	2E-06	2E-06	9E-07
23.2	2E-06	6E-07	1E-08	6E-07
3.27	3E-07	7E-08	1E-08	7E-08
7.82	6E-07	2E-07	2E-09	2E-07
7.39	6E-07	2E-07	1E-08	2E-07
19.3	1E-06	5E-07	6E-09	5E-07
8.50	7E-07	2E-07	1E-08	2E-07
19.0	1E-06	5E-07	7E-09	5E-07
16.7	1E-06	4E-07	5E-09	4E-07
5.41	4E-07	1E-07	8E-09	1E-07
1.28	1E-07	3E-08	2E-09	3E-08
3.97	3E-07	1E-07	2E-09	1E-07
1.70	1E-07	4E-08	9E-09	4E-08
12.7	1E-06	3E-07	1E-08	3E-07
60.1	8E-06	2E-06	2E-06	2E-06
No Data	9E-07	5E-07	5E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data

No Data	5E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	4E-06	2E-06	2E-06	No Data
No Data	4E-04	2E-04	2E-04	No Data
No Data	1E-05	7E-06	7E-06	No Data
No Data	2E-05	1E-05	1E-05	No Data
No Data	7E-04	5E-04	5E-04	No Data
No Data	7E-05	4E-05	4E-05	No Data
No Data	2E-06	1E-06	1E-06	No Data
No Data	5E-07	3E-07	3E-07	No Data
No Data	2E-04	8E-05	8E-05	No Data
No Data	2E-06	9E-07	9E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	4E-04	2E-04	2E-04	No Data
No Data	2E-04	1E-04	1E-04	No Data
68.1	4E-03	2E-03	2E-03	1E-06
No Data	5E-06	3E-06	3E-06	No Data
No Data	1E-03	5E-04	5E-04	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	5E-07	3E-07	3E-07	No Data
No Data	2E-06	2E-06	2E-06	No Data
No Data	1E-06	5E-07	5E-07	No Data
No Data	4E-06	2E-06	2E-06	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	2E-05	1E-05	1E-05	No Data
No Data	3E-04	2E-04	2E-04	No Data
No Data	4E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-06	3E-06	3E-06	No Data
No Data	6E-03	3E-03	3E-03	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	2E-05	1E-05	1E-05	No Data
No Data	5E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	5E-07	2E-07	2E-07	No Data
No Data	2E-05	1E-05	1E-05	No Data
No Data	5E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	6E-06	5E-06	5E-06	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	4E-06	3E-06	3E-06	No Data

No Data	7E-07	3E-07	3E-07	No Data
No Data	4E-06	2E-06	2E-06	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	2E-06	1E-06	1E-06	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	1E-06	9E-07	9E-07	No Data
No Data	4E-06	2E-06	2E-06	No Data
No Data	9E-06	6E-06	6E-06	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	2E-05	1E-05	1E-05	No Data
No Data	7E-07	3E-07	3E-07	No Data
No Data	1E-06	5E-07	5E-07	No Data
39.8	4E-04	2E-04	2E-04	5E-07
0.711	1E-07	8E-08	8E-08	1E-08
0.150	2E-07	8E-08	8E-08	3E-09
2.04	2E-07	8E-08	8E-08	5E-08
0.175	2E-07	8E-08	8E-08	3E-09
1.17	1E-07	8E-08	8E-08	2E-08
0.285	2E-07	8E-08	8E-08	8E-09
0.453	3E-07	2E-07	2E-07	1E-08
0.169	3E-08	8E-08	8E-08	4E-09
397	1E-04	7E-05	7E-05	1E-05
297	3E-05	7E-06	6E-06	7E-06
91.3	3E-05	2E-05	2E-05	2E-06
2.60	3E-06	1E-06	1E-06	5E-08
1.05	4E-07	2E-07	2E-07	3E-08
0.938	2E-07	6E-08	6E-08	3E-08
7.63	8E-07	2E-07	1E-07	2E-07
4.35	4E-07	1E-07	6E-08	1E-07
395	7E-05	3E-05	3E-05	1E-05
43.9	1E-03	1E-03	1E-03	1E-06
4.46	3E-05	2E-05	2E-05	9E-08
1.29	1E-06	8E-07	8E-07	3E-08
1.52	4E-06	3E-06	3E-06	4E-08
42.4	6E-06	1E-06	1E-06	1E-06
3.09	5E-07	1E-07	1E-07	6E-08
2.03	3E-07	7E-08	7E-08	4E-08
80.3	8E-06	2E-06	1E-06	2E-06
17.6	1E-06	4E-07	7E-08	4E-07
810	3E-04	2E-04	2E-04	3E-05
30.2	3E-04	2E-04	2E-04	7E-07
5.65	3E-04	2E-04	2E-04	1E-07
12.3	7E-06	4E-06	4E-06	4E-07
2820	3E-04	7E-05	3E-05	7E-05
61.3	5E-06	1E-06	1E-07	1E-06
358	8E-05	4E-05	4E-05	1E-05
59.3	1E-05	6E-06	6E-06	1E-06

1.65	4E-07	2E-07	2E-07	3E-08
1.12	1E-07	4E-08	4E-08	3E-08
1.12	1E-07	4E-08	4E-08	3E-08
3.93	5E-07	2E-07	2E-07	7E-08
3.31	4E-07	7E-08	7E-08	6E-08
54.5	4E-06	1E-06	9E-08	1E-06
415	7E-05	3E-05	3E-05	1E-05
9.39	1E-06	3E-07	3E-07	2E-07
83.0	7E-06	2E-06	6E-07	2E-06
5.10	5E-07	1E-07	9E-08	1E-07
18.1	1E-06	5E-07	4E-08	5E-07
13.4	9E-06	6E-06	6E-06	4E-07
4.11	8E-07	3E-07	3E-07	9E-08
3.92	5E-07	9E-08	9E-08	9E-08
52.7	4E-06	1E-06	2E-07	1E-06
417	3E-05	1E-05	4E-07	1E-05
1.66	2E-07	4E-08	4E-08	3E-08
1.17	2E-07	4E-08	4E-08	4E-08
1.18	2E-07	4E-08	4E-08	4E-08
550	4E-05	1E-05	6E-07	1E-05
75.2	1E-05	6E-06	6E-06	2E-06
92.1	1E-05	3E-06	2E-06	3E-06
42.1	4E-06	1E-06	2E-07	1E-06
6.50	1E-06	4E-07	4E-07	2E-07
231	3E-05	6E-06	6E-06	6E-06
1070	1E-04	3E-05	2E-05	3E-05
2230	2E-04	6E-05	5E-05	6E-05
3170	4E-04	8E-05	8E-05	8E-05
13.8	1E-06	4E-07	9E-08	4E-07
0.777	8E-08	5E-08	5E-08	2E-08
0.565	1E-07	4E-08	4E-08	1E-08
0.552	6E-08	4E-08	4E-08	1E-08
27.9	2E-06	8E-07	5E-08	8E-07
139	1E-05	4E-06	2E-06	4E-06
0.621	1E-06	6E-07	6E-07	1E-08
0.444	2E-07	1E-07	1E-07	1E-08
4.53	5E-07	1E-07	1E-07	1E-07
96.5	8E-06	2E-06	5E-07	2E-06
62.4	7E-06	1E-06	1E-06	1E-06
25.2	3E-06	8E-07	6E-07	8E-07
0.471	1E-07	5E-08	5E-08	1E-08
78.0	7E-06	2E-06	7E-07	2E-06
153	1E-05	5E-06	3E-07	5E-06
6.27	6E-07	2E-07	3E-08	2E-07
0.577	1E-07	4E-08	4E-08	1E-08
0.755	2E-07	4E-08	4E-08	2E-08
34.3	3E-06	1E-06	2E-07	1E-06

69.8	6E-06	2E-06	6E-07	2E-06
0.723	5E-07	2E-07	2E-07	1E-08
2.21	2E-07	5E-08	5E-08	3E-08
10.1	9E-07	2E-07	6E-08	2E-07
245	2E-05	7E-06	2E-06	7E-06
1.82	5E-06	3E-06	3E-06	4E-08
0.888	1E-07	5E-08	5E-08	1E-08
6.46	9E-07	2E-07	2E-07	2E-07
13.4	1E-06	4E-07	3E-07	4E-07
12.9	3E-06	1E-06	1E-06	3E-07
2.40	3E-07	8E-08	8E-08	6E-08
2.26	5E-07	3E-07	3E-07	8E-08
241	2E-05	7E-06	6E-07	7E-06
8.98	8E-07	2E-07	8E-08	2E-07
0.806	8E-08	4E-08	4E-08	2E-08
0.804	2E-07	4E-08	4E-08	2E-08
81.9	8E-06	2E-06	1E-06	2E-06
4.37	6E-07	2E-07	2E-07	1E-07
6.91	6E-07	2E-07	1E-07	2E-07
41.7	4E-06	1E-06	5E-07	1E-06
0.511	1E-07	5E-08	5E-08	1E-08
19.4	2E-06	7E-07	3E-07	7E-07
1.04	1E-07	4E-08	4E-08	2E-08
0.377	1E-07	5E-08	5E-08	1E-08
0.382	1E-07	4E-08	4E-08	1E-08
1.97	6E-07	3E-07	3E-07	4E-08
10.5	1E-06	3E-07	3E-07	3E-07
96.4	8E-06	3E-06	6E-07	3E-06
1.85	3E-06	2E-06	2E-06	5E-08
6.64	9E-07	3E-07	3E-07	2E-07
169	6E-05	4E-05	4E-05	5E-06
357	5E-04	3E-04	3E-04	1E-05
14.0	5E-05	3E-05	3E-05	4E-07
132	1E-04	8E-05	8E-05	4E-06
3.55	3E-07	8E-08	4E-08	8E-08
3.64	3E-07	7E-08	4E-08	7E-08
2.06	2E-07	6E-08	4E-08	6E-08
2.07	2E-07	6E-08	4E-08	6E-08
3.88	3E-07	8E-08	4E-08	8E-08
2.47	2E-07	8E-08	4E-08	8E-08
6.83	5E-07	1E-07	4E-08	1E-07
22.2	2E-06	6E-07	8E-08	6E-07
2.96	3E-07	7E-08	5E-08	7E-08
12.4	2E-06	9E-07	9E-07	4E-07
104	1E-05	3E-06	3E-06	3E-06
83.2	3E-05	2E-05	2E-05	3E-06
6.35	2E-06	7E-07	7E-07	2E-07

22.7	2E-06	5E-07	3E-07	5E-07
282	3E-05	7E-06	7E-06	6E-06
4.47	5E-07	1E-07	9E-08	1E-07
107	1E-05	4E-06	4E-06	3E-06
7.94	5E-04	4E-04	4E-04	2E-07
0.994	3E-05	2E-05	2E-05	2E-08
154	1E-05	5E-06	1E-06	5E-06
32.2	3E-06	1E-06	6E-07	1E-06
9.43	1E-06	5E-07	5E-07	2E-07
7.13	7E-07	2E-07	1E-07	2E-07
11.1	1E-06	3E-07	3E-07	2E-07
15.3	2E-06	6E-07	6E-07	4E-07
4.93	2E-06	6E-07	6E-07	1E-07
5.68	6E-07	1E-07	9E-08	1E-07
30.6	4E-06	1E-06	1E-06	8E-07
70.5	6E-06	2E-06	3E-07	2E-06
3.45	1E-06	5E-07	5E-07	7E-08
158	2E-05	4E-06	2E-06	4E-06
244	3E-05	6E-06	5E-06	6E-06
5.14	1E-06	5E-07	5E-07	1E-07
38.0	3E-06	1E-06	4E-07	1E-06
12.7	2E-06	5E-07	5E-07	3E-07
34.9	3E-06	8E-07	4E-07	8E-07
602	1E-03	7E-04	7E-04	2E-05
29.5	2E-04	1E-04	1E-04	5E-07

nptions			
Number of Individual Compounds with Risk > 1E-6 (#)	More than 1 individual compound with risk > 1E-6, or 1 individual compound with risk > 2E-6? (Yes:No:N/A) (Orange = Yes)	Cumulative Risk (Brown >1E-5)	Max Individual Compound Risk (orange > 1E-6)
0	N/A	2E-07	6E-08
0	N/A	3E-07	1E-07
0	N/A	5E-07	1E-07
6	Yes	4E-05	3E-05
7	Yes	1E-05	2E-06
0	N/A	5E-08	1E-08
4	Yes	4E-06	9E-07
0	N/A	1E-07	5E-08
0	N/A	6E-07	2E-07
0	N/A	2E-07	4E-08
0	N/A	5E-08	1E-08
0	N/A	4E-07	2E-07
0	N/A	4E-07	1E-07
2	Yes	3E-06	2E-06
0	N/A	2E-08	4E-09
0	N/A	1E-07	3E-08
0	N/A	1E-07	3E-08
0	N/A	3E-07	6E-08
0	N/A	8E-08	2E-08
2	Yes	7E-06	4E-06
1	No	1E-06	4E-07
0	N/A	5E-07	2E-07
0	N/A	7E-08	2E-08
0	N/A	2E-07	4E-08
0	N/A	1E-07	5E-08
0	N/A	4E-07	1E-07
0	N/A	2E-07	5E-08
0	N/A	4E-07	1E-07
0	N/A	3E-07	1E-07
0	N/A	1E-07	3E-08
0	N/A	3E-08	7E-09
0	N/A	8E-08	2E-08
0	N/A	4E-08	1E-08
0	N/A	2E-07	8E-08
2	Yes	2E-06	5E-07
0	N/A	2E-07	1E-07
0	N/A	2E-07	8E-08

0	N/A	1E-07	8E-08
0	N/A	2E-07	8E-08
1	No	1E-06	6E-07
5	Yes	1E-04	6E-05
2	Yes	3E-06	2E-06
2	Yes	5E-06	3E-06
6	Yes	2E-04	1E-04
5	Yes	2E-05	1E-05
0	N/A	5E-07	3E-07
0	N/A	1E-07	8E-08
5	Yes	4E-05	2E-05
0	N/A	4E-07	2E-07
0	N/A	2E-07	8E-08
0	N/A	2E-07	8E-08
5	Yes	1E-04	6E-05
5	Yes	5E-05	3E-05
7	Yes	1E-03	5E-04
1	Yes	1E-06	6E-07
6	Yes	3E-04	1E-04
0	N/A	2E-07	8E-08
0	N/A	2E-07	8E-08
0	N/A	2E-07	8E-08
0	N/A	1E-07	8E-08
1	No	5E-07	4E-07
0	N/A	2E-07	1E-07
1	No	1E-06	6E-07
0	N/A	2E-07	8E-08
2	Yes	5E-06	3E-06
5	Yes	9E-05	5E-05
0	N/A	1E-07	8E-08
0	N/A	2E-07	8E-08
2	Yes	2E-06	8E-07
7	Yes	2E-03	9E-04
0	N/A	2E-07	8E-08
0	N/A	2E-07	8E-08
0	N/A	2E-07	8E-08
2	Yes	6E-06	4E-06
0	N/A	1E-07	8E-08
0	N/A	2E-07	8E-08
0	N/A	1E-07	6E-08
2	Yes	4E-06	3E-06
0	N/A	1E-07	8E-08
0	N/A	2E-07	8E-08
0	N/A	2E-07	8E-08
1	Yes	2E-06	1E-06
0	N/A	2E-07	8E-08
1	Yes	1E-06	7E-07

0	N/A	2E-07	8E-08
2	Yes	1E-06	5E-07
0	N/A	2E-07	8E-08
0	N/A	4E-07	3E-07
0	N/A	2E-07	8E-08
0	N/A	3E-07	2E-07
2	Yes	9E-07	4E-07
1	Yes	2E-06	2E-06
0	N/A	2E-07	8E-08
1	Yes	4E-06	4E-06
0	N/A	2E-07	8E-08
0	N/A	3E-07	1E-07
5	Yes	9E-05	4E-05
0	N/A	2E-08	2E-08
0	N/A	5E-08	2E-08
0	N/A	5E-08	2E-08
0	N/A	5E-08	2E-08
0	N/A	3E-08	2E-08
0	N/A	5E-08	2E-08
0	N/A	8E-08	5E-08
0	N/A	9E-09	2E-08
10	Yes	3E-05	2E-05
6	Yes	8E-06	2E-06
3	Yes	7E-06	4E-06
0	N/A	6E-07	3E-07
0	N/A	1E-07	5E-08
0	N/A	4E-08	2E-08
0	N/A	2E-07	4E-08
0	N/A	1E-07	2E-08
8	Yes	2E-05	7E-06
6	Yes	3E-04	3E-04
4	Yes	9E-06	6E-06
0	N/A	3E-07	2E-07
1	Yes	1E-06	7E-07
0	N/A	1E-06	3E-07
0	N/A	1E-07	3E-08
0	N/A	7E-08	2E-08
1	No	2E-06	5E-07
0	N/A	4E-07	9E-08
12	Yes	8E-05	5E-05
5	Yes	7E-05	5E-05
5	Yes	8E-05	5E-05
1	Yes	2E-06	1E-06
18	Yes	7E-05	2E-05
0	N/A	1E-06	3E-07
10	Yes	2E-05	9E-06
1	Yes	3E-06	2E-06

0	N/A	1E-07	5E-08
0	N/A	3E-08	1E-08
0	N/A	3E-08	1E-08
0	N/A	1E-07	4E-08
0	N/A	9E-08	2E-08
0	N/A	1E-06	3E-07
8	Yes	2E-05	8E-06
0	N/A	3E-07	7E-08
1	No	2E-06	5E-07
0	N/A	1E-07	3E-08
0	N/A	4E-07	1E-07
1	Yes	2E-06	2E-06
0	N/A	2E-07	8E-08
0	N/A	1E-07	2E-08
0	N/A	1E-06	4E-07
6	Yes	8E-06	3E-06
0	N/A	5E-08	1E-08
0	N/A	5E-08	1E-08
0	N/A	5E-08	1E-08
7	Yes	1E-05	4E-06
2	Yes	4E-06	2E-06
2	Yes	3E-06	6E-07
0	N/A	9E-07	3E-07
0	N/A	3E-07	9E-08
6	Yes	7E-06	2E-06
13	Yes	3E-05	9E-06
19	Yes	6E-05	1E-05
19	Yes	9E-05	2E-05
0	N/A	3E-07	9E-08
0	N/A	2E-08	1E-08
0	N/A	4E-08	1E-08
0	N/A	2E-08	1E-08
0	N/A	6E-07	2E-07
3	Yes	3E-06	1E-06
0	N/A	2E-07	1E-07
0	N/A	5E-08	3E-08
0	N/A	1E-07	3E-08
1	No	2E-06	6E-07
0	N/A	2E-06	4E-07
0	N/A	7E-07	2E-07
0	N/A	3E-08	1E-08
1	No	2E-06	6E-07
2	Yes	3E-06	1E-06
0	N/A	1E-07	4E-08
0	N/A	4E-08	1E-08
0	N/A	4E-08	1E-08
0	N/A	7E-07	3E-07

1	No	2E-06	5E-07
0	N/A	1E-07	6E-08
0	N/A	5E-08	1E-08
0	N/A	2E-07	6E-08
6	Yes	5E-06	2E-06
1	Yes	1E-06	8E-07
0	N/A	4E-08	1E-08
0	N/A	2E-07	6E-08
0	N/A	3E-07	9E-08
0	N/A	8E-07	4E-07
0	N/A	7E-08	2E-08
0	N/A	1E-07	6E-08
5	Yes	5E-06	2E-06
0	N/A	2E-07	6E-08
0	N/A	2E-08	1E-08
0	N/A	4E-08	1E-08
1	No	2E-06	6E-07
0	N/A	1E-07	4E-08
0	N/A	2E-07	5E-08
0	N/A	1E-06	3E-07
0	N/A	4E-08	1E-08
0	N/A	5E-07	2E-07
0	N/A	3E-08	1E-08
0	N/A	3E-08	1E-08
0	N/A	3E-08	1E-08
0	N/A	1E-07	7E-08
0	N/A	3E-07	7E-08
1	Yes	2E-06	7E-07
1	No	8E-07	5E-07
0	N/A	2E-07	7E-08
7	Yes	1E-05	9E-06
11	Yes	1E-04	8E-05
4	Yes	1E-05	8E-06
6	Yes	3E-05	2E-05
0	N/A	7E-08	2E-08
0	N/A	8E-08	2E-08
0	N/A	4E-08	1E-08
0	N/A	4E-08	1E-08
0	N/A	8E-08	2E-08
0	N/A	5E-08	2E-08
0	N/A	1E-07	3E-08
0	N/A	5E-07	2E-07
0	N/A	8E-08	2E-08
0	N/A	6E-07	2E-07
2	Yes	3E-06	8E-07
4	Yes	8E-06	4E-06
0	N/A	4E-07	2E-07

0	N/A	5E-07	1E-07
6	Yes	8E-06	2E-06
0	N/A	1E-07	2E-08
2	Yes	3E-06	1E-06
6	Yes	1E-04	9E-05
4	Yes	8E-06	6E-06
3	Yes	4E-06	1E-06
0	N/A	8E-07	3E-07
0	N/A	3E-07	1E-07
0	N/A	2E-07	4E-08
0	N/A	4E-07	8E-08
0	N/A	6E-07	1E-07
0	N/A	4E-07	2E-07
0	N/A	1E-07	3E-08
0	N/A	1E-06	3E-07
1	No	1E-06	5E-07
0	N/A	3E-07	1E-07
3	Yes	4E-06	1E-06
6	Yes	6E-06	2E-06
0	N/A	2E-07	1E-07
0	N/A	9E-07	3E-07
0	N/A	4E-07	1E-07
0	N/A	8E-07	2E-07
11	Yes	3E-04	2E-04
5	Yes	4E-05	3E-05

Site-Specific Recreator CUL Exposure Assumptions (FI=0.25)			
Max Individual cPAH Risk (Orange > 1E-6) (Brown > 1E-5)	**Max Individual D/F Risk** (Orange > 1E-6) (Brown > 1E-5)	**Number of Individual Compounds with Risks > 1E-6** (#)	**More than 1 individual compound with risk > 1E-6, or 1 individual compound with risk > 2E-6?** (Yes:No:N/A) (Orange = Yes)
1E-08	6E-08	0	N/A
1E-07	2E-08	0	N/A
7E-08	1E-07	0	N/A
3E-05	1E-06	4	Yes
2E-06	2E-06	3	Yes
4E-09	1E-08	0	N/A
4E-07	9E-07	0	N/A
3E-09	5E-08	0	N/A
3E-08	2E-07	0	N/A
2E-08	4E-08	0	N/A
3E-09	1E-08	0	N/A
3E-09	2E-07	0	N/A
8E-08	1E-07	0	N/A
2E-06	7E-08	1	No
5E-10	4E-09	0	N/A
4E-09	3E-08	0	N/A
3E-08	2E-08	0	N/A
5E-08	6E-08	0	N/A
3E-09	2E-08	0	N/A
4E-06	3E-07	1	Yes
4E-07	2E-07	0	N/A
4E-09	2E-07	0	N/A
4E-09	2E-08	0	N/A
6E-10	4E-08	0	N/A
3E-09	5E-08	0	N/A
1E-09	1E-07	0	N/A
3E-09	5E-08	0	N/A
2E-09	1E-07	0	N/A
1E-09	1E-07	0	N/A
2E-09	3E-08	0	N/A
4E-10	7E-09	0	N/A
5E-10	2E-08	0	N/A
2E-09	1E-08	0	N/A
3E-09	8E-08	0	N/A
5E-07	4E-07	0	N/A
1E-07	No Data	0	N/A
8E-08	No Data	0	N/A

8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
6E-07	No Data	0	N/A
6E-05	No Data	5	Yes
2E-06	No Data	1	No
3E-06	No Data	1	Yes
1E-04	No Data	5	Yes
1E-05	No Data	2	Yes
3E-07	No Data	0	N/A
8E-08	No Data	0	N/A
2E-05	No Data	5	Yes
2E-07	No Data	0	N/A
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
6E-05	No Data	5	Yes
3E-05	No Data	4	Yes
5E-04	3E-07	6	Yes
6E-07	No Data	0	N/A
1E-04	No Data	5	Yes
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
4E-07	No Data	0	N/A
1E-07	No Data	0	N/A
6E-07	No Data	0	N/A
8E-08	No Data	0	N/A
3E-06	No Data	1	Yes
5E-05	No Data	5	Yes
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
8E-07	No Data	0	N/A
9E-04	No Data	6	Yes
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
4E-06	No Data	2	Yes
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
6E-08	No Data	0	N/A
3E-06	No Data	1	Yes
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
8E-08	No Data	0	N/A
1E-06	No Data	0	N/A
8E-08	No Data	0	N/A
7E-07	No Data	0	N/A

8E-08	No Data	0	N/A
5E-07	No Data	0	N/A
8E-08	No Data	0	N/A
3E-07	No Data	0	N/A
8E-08	No Data	0	N/A
2E-07	No Data	0	N/A
4E-07	No Data	0	N/A
2E-06	No Data	1	No
8E-08	No Data	0	N/A
4E-06	No Data	1	Yes
8E-08	No Data	0	N/A
1E-07	No Data	0	N/A
4E-05	1E-07	4	Yes
2E-08	3E-09	0	N/A
2E-08	8E-10	0	N/A
2E-08	1E-08	0	N/A
2E-08	9E-10	0	N/A
2E-08	5E-09	0	N/A
2E-08	2E-09	0	N/A
5E-08	3E-09	0	N/A
2E-08	9E-10	0	N/A
2E-05	3E-06	4	Yes
2E-06	2E-06	2	Yes
4E-06	5E-07	1	Yes
3E-07	1E-08	0	N/A
5E-08	7E-09	0	N/A
2E-08	7E-09	0	N/A
4E-08	4E-08	0	N/A
1E-08	2E-08	0	N/A
7E-06	3E-06	2	Yes
3E-04	2E-07	6	Yes
6E-06	2E-08	1	Yes
2E-07	9E-09	0	N/A
7E-07	9E-09	0	N/A
3E-07	2E-07	0	N/A
3E-08	2E-08	0	N/A
2E-08	9E-09	0	N/A
3E-07	5E-07	0	N/A
2E-08	9E-08	0	N/A
5E-05	7E-06	8	Yes
5E-05	2E-07	5	Yes
5E-05	3E-08	5	Yes
1E-06	1E-07	0	N/A
7E-06	2E-05	11	Yes
3E-08	3E-07	0	N/A
9E-06	2E-06	3	Yes
2E-06	4E-07	1	No

5E-08	7E-09	0	N/A
1E-08	7E-09	0	N/A
1E-08	8E-09	0	N/A
4E-08	2E-08	0	N/A
2E-08	1E-08	0	N/A
2E-08	3E-07	0	N/A
8E-06	3E-06	2	Yes
7E-08	5E-08	0	N/A
2E-07	5E-07	0	N/A
2E-08	3E-08	0	N/A
1E-08	1E-07	0	N/A
2E-06	9E-08	1	No
8E-08	2E-08	0	N/A
2E-08	2E-08	0	N/A
4E-08	4E-07	0	N/A
9E-08	3E-06	1	Yes
1E-08	8E-09	0	N/A
1E-08	9E-09	0	N/A
1E-08	1E-08	0	N/A
1E-07	4E-06	1	Yes
2E-06	6E-07	1	No
6E-07	6E-07	0	N/A
5E-08	3E-07	0	N/A
9E-08	4E-08	0	N/A
2E-06	1E-06	1	No
4E-06	9E-06	5	Yes
1E-05	1E-05	9	Yes
2E-05	2E-05	12	Yes
2E-08	9E-08	0	N/A
1E-08	4E-09	0	N/A
1E-08	4E-09	0	N/A
1E-08	4E-09	0	N/A
1E-08	2E-07	0	N/A
4E-07	1E-06	0	N/A
1E-07	3E-09	0	N/A
3E-08	3E-09	0	N/A
3E-08	3E-08	0	N/A
1E-07	6E-07	0	N/A
3E-07	4E-07	0	N/A
2E-07	2E-07	0	N/A
1E-08	2E-09	0	N/A
2E-07	6E-07	0	N/A
6E-08	1E-06	0	N/A
8E-09	4E-08	0	N/A
1E-08	3E-09	0	N/A
1E-08	4E-09	0	N/A
5E-08	3E-07	0	N/A

1E-07	5E-07	0	N/A
6E-08	3E-09	0	N/A
1E-08	7E-09	0	N/A
1E-08	6E-08	0	N/A
4E-07	2E-06	1	No
8E-07	1E-08	0	N/A
1E-08	3E-09	0	N/A
6E-08	5E-08	0	N/A
6E-08	9E-08	0	N/A
4E-07	8E-08	0	N/A
2E-08	1E-08	0	N/A
6E-08	2E-08	0	N/A
2E-07	2E-06	1	No
2E-08	6E-08	0	N/A
1E-08	4E-09	0	N/A
1E-08	5E-09	0	N/A
4E-07	6E-07	0	N/A
4E-08	3E-08	0	N/A
3E-08	5E-08	0	N/A
1E-07	3E-07	0	N/A
1E-08	3E-09	0	N/A
8E-08	2E-07	0	N/A
1E-08	6E-09	0	N/A
1E-08	3E-09	0	N/A
1E-08	3E-09	0	N/A
7E-08	9E-09	0	N/A
7E-08	7E-08	0	N/A
1E-07	7E-07	0	N/A
5E-07	1E-08	0	N/A
7E-08	4E-08	0	N/A
9E-06	1E-06	1	Yes
8E-05	3E-06	5	Yes
8E-06	1E-07	2	Yes
2E-05	1E-06	3	Yes
1E-08	2E-08	0	N/A
9E-09	2E-08	0	N/A
9E-09	1E-08	0	N/A
1E-08	1E-08	0	N/A
1E-08	2E-08	0	N/A
1E-08	2E-08	0	N/A
1E-08	3E-08	0	N/A
2E-08	2E-07	0	N/A
1E-08	2E-08	0	N/A
2E-07	9E-08	0	N/A
8E-07	8E-07	0	N/A
4E-06	7E-07	1	Yes
2E-07	4E-08	0	N/A

7E-08	1E-07	0	N/A
2E-06	2E-06	2	Yes
2E-08	2E-08	0	N/A
1E-06	6E-07	0	N/A
9E-05	4E-08	4	Yes
6E-06	4E-09	1	Yes
4E-07	1E-06	0	N/A
1E-07	3E-07	0	N/A
1E-07	5E-08	0	N/A
3E-08	4E-08	0	N/A
8E-08	6E-08	0	N/A
1E-07	1E-07	0	N/A
2E-07	3E-08	0	N/A
2E-08	3E-08	0	N/A
3E-07	2E-07	0	N/A
7E-08	5E-07	0	N/A
1E-07	2E-08	0	N/A
6E-07	1E-06	0	N/A
1E-06	2E-06	1	No
1E-07	3E-08	0	N/A
9E-08	3E-07	0	N/A
1E-07	8E-08	0	N/A
1E-07	2E-07	0	N/A
2E-04	6E-06	8	Yes
3E-05	1E-07	4	Yes