

**IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ALABAMA
SOUTHERN DIVISION**

COOSA RIVERKEEPER, INC.,)	
)	
PLAINTIFF,)	
)	CASE NO. 2:22-CV-00158-NAD
V.)	
)	
)	
NEWCASTLE HOMES, INC.)	
)	
DEFENDANT.)	
)	

PROPOSED CONSENT DECREE

I. RECITALS

WHEREAS, Newcastle Homes, Inc. (“Newcastle”) is a homebuilding company that is constructing the Dunnivant Valley Subdivision, a 52.7 acre property at 33.3738, -86.6565, in Shelby County, Alabama (hereinafter “Site”); and

WHEREAS, Newcastle has obtained a stormwater construction general permit issued by the Alabama Department of Environmental Management (“ADEM”), more specifically General Permit Number ALR100000 under the National Pollutant Discharge Elimination System (“NPDES”), for discharges associated with the construction of said Subdivision at the Site; and

WHEREAS, Coosa Riverkeeper, Inc. (“CRK”) filed suit against Newcastle in the United States District Court for the Northern District of Alabama, Southern Division, on February 7, 2022, for alleged violations of the Clean Water Act (“CWA”); and

WHEREAS, Newcastle and CRK (collectively, the “Parties”) recognize, and the Court by entering this Consent Decree finds, that the Consent Decree has been negotiated by the Parties in

good faith and will avoid further litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest; and

WHEREAS, pursuant to 33 U.S.C. § 1365(c)(3),¹ this Consent Decree is being forwarded to the United States Department of Justice (“DOJ”) and the U.S. Environmental Protection Agency (“EPA”) for the statutorily-mandated forty-five-day review period; and

WHEREAS, the Parties consent to the entry of this Consent Decree without trial of any issues;

NOW THEREFORE, without this Consent Decree constituting any evidence or admission by the Parties (or by any party) with respect to any issue of fact or law herein, and upon consent of the Parties hereto, it is hereby ORDERED, ADJUDGED, and DECREED as follows:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter herein and the Parties to this action pursuant to 33 U.S.C. §1365(a) and under 28 U.S.C. §1331.

III. VENUE

2. Venue is proper in the Northern District of Alabama pursuant to 33 U.S.C. §1365(c)(1) and 28 U.S.C. §1391 (b) and (c).

3. For purposes of this Consent Decree, or any action to enforce this Decree, the Parties consent to the Court’s continuing jurisdiction.

IV. PARTIES

4. Plaintiff CRK is a non-profit corporation incorporated in Alabama.

¹ 33 U.S.C. § 1365(c)(3) provides, in relevant part, “No consent judgment shall be entered in an action in which the United States is not a party prior to 45 days following the receipt of a copy of the proposed consent judgment by the Attorney General and the Administrator.”

5. Defendant Newcastle is a “person” within the meaning of that term as defined 33 U.S.C. §1362(5).

V. APPLICABILITY

6. The provisions of this Consent Decree apply to and are binding upon the Parties, as well as each individual party’s successors and assigns.

VI. EFFECTIVE DATE

7. This Consent Decree shall become effective on the date of its entry by the Court following any required time period for notification and consideration by the United States.

VII. FUTURE VIOLATIONS AND ASSOCIATED SUPPLEMENTAL ENVIRONMENTAL PROJECTS

8. Subject to the exceptions, additional stipulations, and/or provisions set out in this Section VII and/or Section XV, upon being presented with sampling results by CRK demonstrating any violation of Part I.D.11. of ADEM NPDES Permit No. ALR10BHC4 (or any equivalent permit issued by ADEM that regulates construction stormwater discharges from the Site) (“Permit”),² Newcastle shall pay to Big Canoe Creek Preserve Partners (“Partners”), a 501(c)(3) nonprofit organization that supports the management of the Big Canoe Creek Nature Preserve, the following, so Partners may carry out supplemental environmental projects in the Coosa River watershed in accordance with its bylaws and mission:

² Part I.D. of the Permit is entitled “Prohibited Discharges” and states, in relevant part: “The following discharges associated with construction are not authorized by this permit: . . . 11. Discharges where the turbidity of such discharge will cause or contribute to an increase in the turbidity of the receiving water by more than 50 NTUs above background. For the purposes of determining compliance with this limitation, background will be interpreted as the natural condition of the receiving water without the influence of man-made or man-induced causes. Turbidity levels caused by natural runoff will be included in establishing background levels[.]” Background sampling shall be conducted at 33.383119, -86.644893 and shall not change unless significant man-made or man-induced modifications cause it to change, in which case the Parties shall agree in writing to a new background sampling location.

- a. Five Hundred Dollars (\$500.00) per violation for Nephelometric Turbidity Unit (NTU) measurements 51-150 NTUs above background NTU sampling measurements collected within a reasonable time before or after the claimed violation.
- b. One Thousand Dollars (\$1,000.00) per violation for NTU measurements greater than 150 NTUs above background NTU sampling measurements collected within a reasonable time before or after the claimed violation.

Newcastle shall pay monies owed pursuant to this Paragraph to Partners no later than fourteen (14) days after receiving documentation from CRK of the corresponding violation(s) by check. The check shall be made out to “Big Canoe Creek Preserve Partners” and sent to: 370 Oak Grove Road, Springville, AL 36146.

In the event of a dispute between the Parties (as described in, and pursuant to, Paragraphs 12 and/or 31), Newcastle shall pay monies allegedly owed and the Parties shall instruct Partners to not utilize the monies until directed to do so in writing by the Parties.

9. The maximum number of violations shall not exceed one violation, per day, per permitted outfall.

10. Newcastle shall have five (5) days to remedy a violation for which Newcastle owes monies to Partners, as outlined in Paragraph 8 of this Consent Decree. For all such violations, CRK shall not assert/allege another violation for at least five (5) days. Accordingly, if Newcastle can cure a given violation within the five (5) day period, it will only be counted as a single violation.

11. Newcastle may claim an exemption from a violation, and if it does so, it must produce to CRK proof:

- a. That the violation was caused by an “upset,” as that term is defined in the Permit; provided that, for purposes of this Consent Decree, the Parties acknowledge and agree that: (i) Part I.D.11. of the Permit constitutes a technology-based permit effluent limitation; and (ii) CRK cannot utilize any failure to notify ADEM of the upset as a basis to dispute a Newcastle claimed exemption; or
- b. Of rainfall data from up to and including 24 hours preceding the violation (or longer, if the rainfall is continuous for more than 24 hours preceding the violation), proving that rainfall during that period exceeded the National Oceanic and Atmospheric Administration’s (“NOAA”) National Weather Service ATLAS 14 Point Precipitation Frequency Estimates (“ATLAS Estimates”) applicable to a 2-year average recurrence interval for the following Global Positioning System (GPS) coordinates: 33.3738, -86.6565. A copy of the ATLAS Estimates applicable to the Site as of the date of this filing are attached hereto as Exhibit A. The Parties acknowledge that said 2-year average recurrence interval rainfall estimates are subject to change and agree the applicable rainfall estimates shall be those listed on NOAA’s website³ at the time of any alleged violation.

In response to receipt of proof of any violation documented by CRK for which Newcastle elects to claim an exemption, Newcastle shall send written notification to CRK no later than three (3) business days after receipt of CRK’s notice of the alleged violation (which, for any claimed Paragraph 11.b. exemption, shall consist of the electronic rainfall data), stating that it contests the violation. Newcastle’s notice must state the basis upon which it disputes the violation and include

³ Currently, the relevant information is accessible via https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=al.

all documentation, or citation to electronic records or information, upon which it bases its claim of exemption. In instances where Newcastle claims and proves an exemption, as specified in Paragraph 11, no violation exists/occurred and no monies are owed, pursuant to Paragraph 8.

12. If the Parties disagree about and/or contest a violation or violations claimed by CRK and/or an exemption or exemptions claimed by Newcastle, the Parties shall work in good faith to resolve their disagreement before seeking relief from this Court. At a minimum, the Parties shall confer, preferably in person, to attempt to resolve any such disagreement before seeking relief from this Court. However, after reasonable attempt to meet has been made, the Parties can seek relief from this Court.

VIII. SAMPLING AND ACCESS

13. CRK shall conduct water quality sampling at the Site and the background location for purposes of determining violations pursuant to this Consent Decree in accordance with its sampling and calibration protocols, which are attached hereto as Exhibit B. The only addition to these protocols is that CRK will collect such samples at the following locations: (a) for the permitted outfalls discharging to Yellowleaf Creek, at the point just prior to the discharge entering the Creek; and (b) for the permitted outfall discharging to Ivy Branch, at the point just prior to the discharge entering the waterbody. The Parties may alter these sampling protocols, if needed, only by and through a written agreement executed by both Parties.

14. Newcastle shall grant CRK access to portions of the Site for the limited purpose of collecting water samples at Newcastle's permitted outfalls and measuring the NTUs of said samples. The Parties have executed a separate agreement delineating each party's rights and obligations when CRK accesses the Site, which is attached hereto as Exhibit C.

IX. PENALTIES

15. Newcastle shall pay the United States Treasury Five-Hundred Dollars (\$500) for past violations of the Permit.

X. COSTS AND FEES

16. Newcastle shall pay to CRK \$39,750.00, which represents CRK's costs (including attorney's fees, sampling costs and expert expenses) in pursuing this legal action, within 15 days of the entry of this Consent Decree by the Court. Newcastle shall send the payment to CRK by certified check to:

Coosa Riverkeeper
102 Croft St Suite B
Birmingham, AL 35242

XI. EFFECT OF SETTLEMENT AND RESERVATION OF RIGHTS

17. This Consent Decree in no way affects or relieves Newcastle of its responsibility to comply with applicable federal, state, and local laws, regulations, and permits.

18. This Consent Decree represents full and final settlement among the Parties as to the alleged Clean Water Act violations at the Site, including but not limited to all such violations alleged in CRK's Complaint (Doc. 1).

19. This Consent Decree sets out in Section VII the only violations and/or claims stemming from construction stormwater regulation and/or discharges (including any solids/sediments that may exist in said stormwater discharges) from the Site that CRK may assert as to the Site for as long as this Consent Decree remains in place.

20. In exchange for Newcastle's agreement to the terms of this Consent Decree for a contested matter, to which Newcastle agrees without admission of any fact or any wrongdoing or liability, CRK hereby:

- a. Waives, releases, and/or forever discharges Newcastle and its shareholders; any divisions, subsidiaries, affiliates, or related entities and persons, including officers, directors, and shareholders of Newcastle; any partners, predecessors, successors, representatives, insurers, assignees, agents, employees, attorneys, executors, administrators, and heirs of Newcastle; and any and all persons acting by, through, or in any way on behalf of Newcastle (hereinafter, collectively “Newcastle Parties”), of and from any and all violations alleged by CRK in its Complaint, as well as from any violations and/or claims stemming from construction stormwater regulation and/or construction stormwater discharges (including any solids/sediments that may exist in said stormwater discharges) relating to and/or from the Site (regardless of whether said violations and/or claims were based on federal, state, local, and/or common law) that may have occurred/accrued prior to and including the date on which this Consent Decree is entered by the Court, following the required time period for notification and consideration by DOJ and EPA.
- b. Except as specified in Section VII, waives its right to allege/assert/claim against the Newcastle Parties, any violations and/or claims stemming from construction stormwater regulation and/or construction stormwater discharges (including any solids/sediments that may exist in said stormwater discharges) relating to and/or from the Site (regardless of whether said violations and/or claims are based on federal, state, local, and/or common law) that occur or accrue after the date on which this Consent Decree is entered by the Court.

Nothing in this Section shall prohibit CRK from bringing a suit to enforce the terms and/or conditions of this Consent Decree.

XII. NOTICES

21. Unless otherwise specified herein, whenever notifications or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

a. To CRK:

Justinn Overton, Executive Director, Coosa Riverkeeper
102 Croft St Suite B
Birmingham, AL 35242
justinn@coosariver.org

and

Sarah Stokes, Senior Attorney, SELC
2829 2nd Ave. S., Suite 282
Birmingham, AL 35233
sstokes@selcal.org

b. To Newcastle:

Glenn Siddle
Newcastle Homes, Inc.
121 Bishop Circle #1397
Pelham, AL 35124
gsiddle@gmail.com

and

Tom DeLawrence
Balch & Bingham LLP
1901 Sixth Ave North, Suite 1500
Birmingham, AL 35203
tdelawrence@balch.com

22. Any party may, by written notice to the other party, change its designated recipient or notice address provided above.

23. Notices submitted pursuant to this Section shall be deemed submitted upon mailing or emailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XIII. MODIFICATION

24. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by the Parties and shall be effective only upon entry of a modified Consent Decree by the Court.

XIV. TERMINATION

25. Provided that all environmental fees and costs described in Sections VII, IX and X have been paid, this Consent Decree shall terminate at the earliest occurrence of any of the following: (a) the passage of 365 days or more without the occurrence of a violation for which Newcastle pays monies in accordance with Paragraph 8; (b) termination of the Permit by ADEM, in response to a Notice of Termination (or any equivalent notification) submitted by Newcastle; or (c) the execution of a written agreement by the Parties specifically referencing and agreeing to terminate this Consent Decree.

26. Upon the occurrence of a terminating event, as described in Paragraph 25, either party may timely file a motion with the Court requesting termination of this Consent Decree.

XV. FORCE MAJEURE

27. "Force Majeure," for purposes of this Consent Decree, is defined as any event arising from a cause or causes beyond the control of Newcastle or of Newcastle's consultants and/or contractors that delays or prevents the performance of any obligation under this Consent Decree and/or the Permit despite Newcastle's best, good faith efforts to fulfill the obligation.

28. When circumstances are occurring or have occurred due to a Force Majeure event which may have caused a Section VII violation and/or delay the completion of any requirement of this Consent Decree and/or the Permit (including but not limited to the completion of corrective action(s) following a Section VII violation), Newcastle shall so notify CRK in writing within fifteen (15) days after Newcastle knew, or should have known, of the Force Majeure event.⁴ The notice shall describe in detail the basis for the contention that Newcastle experienced or anticipates that it will experience a Force Majeure delay, the anticipated length of the delay, the precise cause or causes of the delay, the measures taken or to be taken to prevent or minimize the delay, and the timetable by which those measures will be implemented. Failure to so notify CRK shall constitute a waiver of any claim of Force Majeure as to the event in question.

29. If CRK finds, and states in writing, that such a delay in the completion of any requirement is, or was, caused by a Force Majeure event, it shall extend the time for completion for a period to compensate for the delay resulting from such event and monies that may otherwise have been owed to Partners, pursuant to Section VII, shall not be due for such period.

30. Newcastle shall make an individual showing of proof regarding the cause of a Section VII violation and/or delay in the completion of any requirement of this Consent Decree and/or the Permit (including but not limited to the completion of corrective action(s) following a Section VII violation) due to a Force Majeure event. Nevertheless, Newcastle may make such a showing of proof as to multiple violations and/or delays in a single written notification.

⁴ When circumstances are expected to occur, are occurring, or have occurred that are not due to a Force Majeure event but nevertheless will delay or have delayed the completion of any requirement of this Consent Decree and/or the Permit (including but not limited to the completion of corrective action(s) following a Section VII violation) by more than 14 days, Newcastle shall so notify CRK in writing within seven (7) days after Newcastle knew, or should have known, of the delay or anticipated delay.

31. If the Parties disagree about any Force Majeure event claim, the Parties shall work in good faith to resolve their disagreement before seeking relief from this Court. At a minimum, the Parties shall meet and confer, preferably in person, to attempt to resolve any such disagreement before seeking relief from this Court. However, after reasonable attempt to meet has been made, then Parties can seek relief from this Court.

XVI. INTEGRATION AND SEVERABILITY

32. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the resolution embodied in the Consent Decree and supersedes all prior agreements and understandings, whether oral or written, concerning this agreement. No other document nor any representation, inducement, agreement, understanding, or promise constitutes any part of this Consent Decree or the resolution it represents, nor shall it be used in construing the terms of this Consent Decree. The provisions of this Consent Decree shall be severable. If any provisions are declared by a court of competent jurisdiction to be unenforceable, the remaining provisions shall nevertheless remain in full force and effect.

XVII. EXECUTION IN COUNTERPARTS

33. This Consent Decree may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

XVIII. SIGNATORIES

34. The Parties certify that they are fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.


XIX. FINAL JUDGMENT

35. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to CRK and Newcastle. The Court finds that there is no

just reason for delay and therefore enters this judgment as a final judgment under Rules 54 and 58 of the Federal Rules of Civil Procedure.

FOR COOSA RIVERKEEPER, INC.:

Date: June 15, 2023




Justinn Overton
Executive Director and Riverkeeper
Coosa Riverkeeper, Inc.

ADDRESS OF COUNSEL:
Sarah Stokes, Senior Attorney
Southern Environmental Law Center
2829 2nd Ave South, Suite 282
Birmingham, AL 35233

FOR NEWCASTLE HOMES, INC.:

06/16/2023
Date



Glenn Siddle
Chief Executive Officer
Newcastle Homes, Inc.

ADDRESS OF COUNSEL:
Chuck Burkhart
Tom DeLawrence
Balch & Bingham LLP
1901 Sixth Ave North, Suite 1500
Birmingham, AL 35203

APPROVED, this day of _____, 2023.

Nicholas A. Danella
Magistrate Judge

Exhibit A



NOAA Atlas 14, Volume 9, Version 2
Location name: Birmingham, Alabama, USA*
Latitude: 33.3738°, Longitude: -86.6565°
Elevation: m/ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffrey Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.430 (0.344-0.538)	0.493 (0.394-0.616)	0.597 (0.475-0.748)	0.685 (0.541-0.861)	0.808 (0.617-1.04)	0.905 (0.673-1.18)	1.00 (0.720-1.33)	1.10 (0.758-1.50)	1.24 (0.817-1.72)	1.34 (0.861-1.88)
10-min	0.630 (0.504-0.787)	0.722 (0.576-0.902)	0.875 (0.695-1.10)	1.00 (0.793-1.26)	1.18 (0.903-1.52)	1.33 (0.986-1.72)	1.47 (1.05-1.95)	1.62 (1.11-2.19)	1.82 (1.20-2.51)	1.97 (1.26-2.76)
15-min	0.769 (0.614-0.960)	0.881 (0.703-1.10)	1.07 (0.848-1.34)	1.22 (0.967-1.54)	1.44 (1.10-1.86)	1.62 (1.20-2.10)	1.79 (1.29-2.38)	1.97 (1.35-2.67)	2.21 (1.46-3.06)	2.40 (1.54-3.36)
30-min	1.13 (0.903-1.41)	1.30 (1.03-1.62)	1.58 (1.25-1.97)	1.81 (1.43-2.27)	2.14 (1.63-2.76)	2.40 (1.79-3.12)	2.66 (1.91-3.54)	2.94 (2.02-3.98)	3.31 (2.18-4.58)	3.59 (2.30-5.03)
60-min	1.49 (1.19-1.86)	1.70 (1.36-2.13)	2.07 (1.64-2.59)	2.38 (1.88-2.99)	2.83 (2.17-3.66)	3.19 (2.38-4.16)	3.56 (2.56-4.74)	3.95 (2.72-5.36)	4.49 (2.96-6.22)	4.90 (3.14-6.87)
2-hr	1.85 (1.49-2.28)	2.11 (1.70-2.61)	2.56 (2.06-3.18)	2.95 (2.36-3.67)	3.52 (2.73-4.52)	3.98 (3.00-5.16)	4.46 (3.24-5.89)	4.97 (3.45-6.70)	5.67 (3.78-7.80)	6.22 (4.02-8.64)
3-hr	2.08 (1.69-2.55)	2.36 (1.92-2.91)	2.87 (2.32-3.53)	3.31 (2.66-4.09)	3.96 (3.09-5.07)	4.50 (3.42-5.81)	5.07 (3.71-6.67)	5.68 (3.97-7.63)	6.52 (4.38-8.96)	7.20 (4.69-9.96)
6-hr	2.52 (2.07-3.07)	2.86 (2.34-3.48)	3.46 (2.83-4.22)	4.01 (3.26-4.91)	4.84 (3.83-6.16)	5.54 (4.26-7.11)	6.29 (4.66-8.23)	7.11 (5.04-9.50)	8.26 (5.61-11.3)	9.20 (6.05-12.6)
12-hr	3.06 (2.54-3.68)	3.46 (2.87-4.17)	4.20 (3.46-5.06)	4.88 (4.01-5.91)	5.93 (4.75-7.50)	6.83 (5.32-8.70)	7.81 (5.85-10.1)	8.87 (6.36-11.8)	10.4 (7.15-14.1)	11.7 (7.74-15.9)
24-hr	3.62 (3.04-4.31)	4.13 (3.46-4.93)	5.06 (4.22-6.05)	5.93 (4.92-7.10)	7.25 (5.87-9.08)	8.38 (6.59-10.6)	9.59 (7.27-12.4)	10.9 (7.91-14.4)	12.8 (8.91-17.3)	14.4 (9.66-19.5)
2-day	4.19 (3.55-4.94)	4.84 (4.10-5.71)	6.01 (5.07-7.10)	7.07 (5.93-8.38)	8.68 (7.08-10.7)	10.0 (7.96-12.5)	11.5 (8.77-14.6)	13.0 (9.54-17.0)	15.3 (10.7-20.4)	17.1 (11.6-22.9)
3-day	4.60 (3.93-5.39)	5.30 (4.51-6.21)	6.54 (5.55-7.68)	7.67 (6.48-9.04)	9.39 (7.71-11.5)	10.8 (8.65-13.4)	12.4 (9.52-15.7)	14.0 (10.3-18.2)	16.4 (11.6-21.8)	18.3 (12.5-24.5)
4-day	4.98 (4.27-5.80)	5.69 (4.87-6.63)	6.96 (5.94-8.13)	8.12 (6.88-9.52)	9.87 (8.14-12.1)	11.3 (9.10-14.0)	12.9 (9.98-16.3)	14.6 (10.8-18.9)	17.1 (12.1-22.6)	19.0 (13.0-25.3)
7-day	6.00 (5.19-6.93)	6.74 (5.82-7.79)	8.05 (6.92-9.32)	9.22 (7.89-10.7)	11.0 (9.13-13.3)	12.4 (10.1-15.2)	14.0 (10.9-17.5)	15.7 (11.7-20.1)	18.1 (12.9-23.7)	20.0 (13.8-26.4)
10-day	6.87 (5.97-7.88)	7.65 (6.65-8.80)	9.02 (7.81-10.4)	10.2 (8.81-11.8)	12.0 (10.0-14.4)	13.5 (11.0-16.4)	15.0 (11.8-18.7)	16.7 (12.5-21.2)	19.0 (13.6-24.8)	20.8 (14.5-27.5)
20-day	9.18 (8.07-10.4)	10.2 (8.96-11.6)	11.9 (10.4-13.5)	13.3 (11.6-15.2)	15.3 (12.9-18.0)	16.9 (13.8-20.2)	18.5 (14.6-22.6)	20.2 (15.2-25.3)	22.4 (16.2-28.8)	24.1 (17.0-31.5)
30-day	11.2 (9.89-12.6)	12.4 (11.0-14.0)	14.4 (12.7-16.2)	16.0 (14.0-18.2)	18.2 (15.3-21.2)	19.9 (16.4-23.5)	21.5 (17.1-26.1)	23.2 (17.6-28.9)	25.4 (18.5-32.5)	27.0 (19.1-35.2)
45-day	13.8 (12.3-15.5)	15.3 (13.6-17.1)	17.6 (15.6-19.8)	19.4 (17.1-21.9)	21.9 (18.5-25.2)	23.6 (19.6-27.7)	25.4 (20.2-30.5)	27.0 (20.6-33.3)	29.1 (21.3-36.9)	30.6 (21.8-39.6)
60-day	16.2 (14.5-18.1)	17.9 (16.0-19.9)	20.4 (18.2-22.9)	22.4 (19.9-25.2)	25.0 (21.3-28.7)	26.9 (22.3-31.3)	28.6 (22.9-34.1)	30.2 (23.1-37.0)	32.1 (23.6-40.6)	33.4 (23.9-43.2)

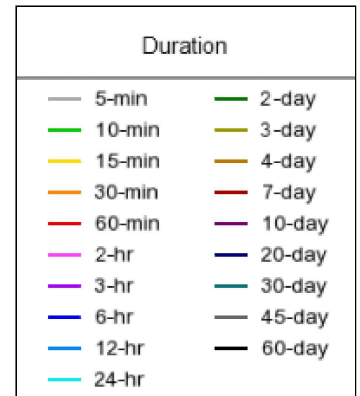
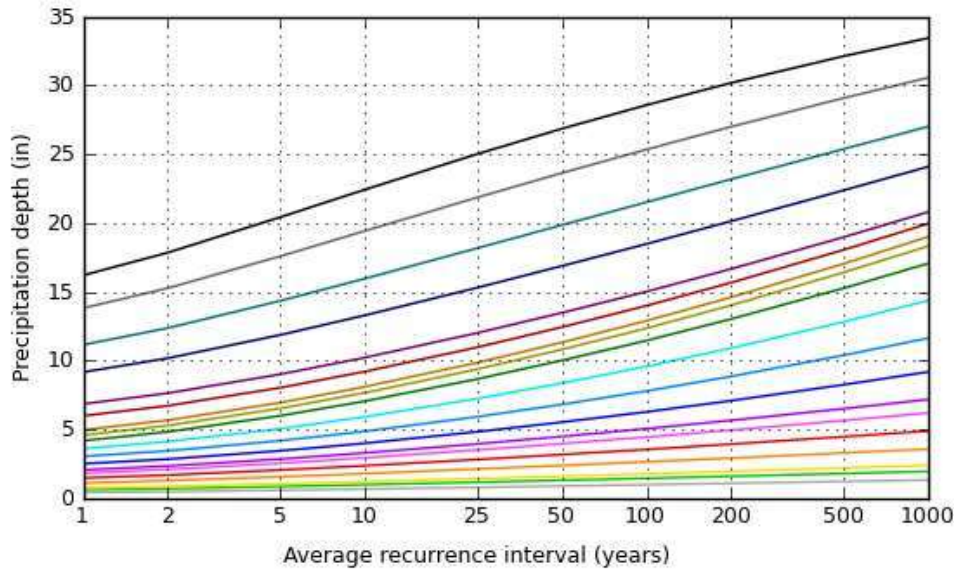
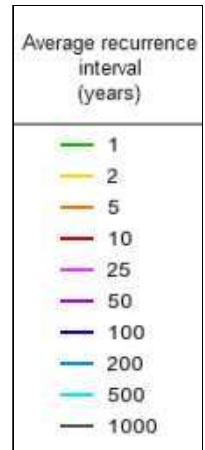
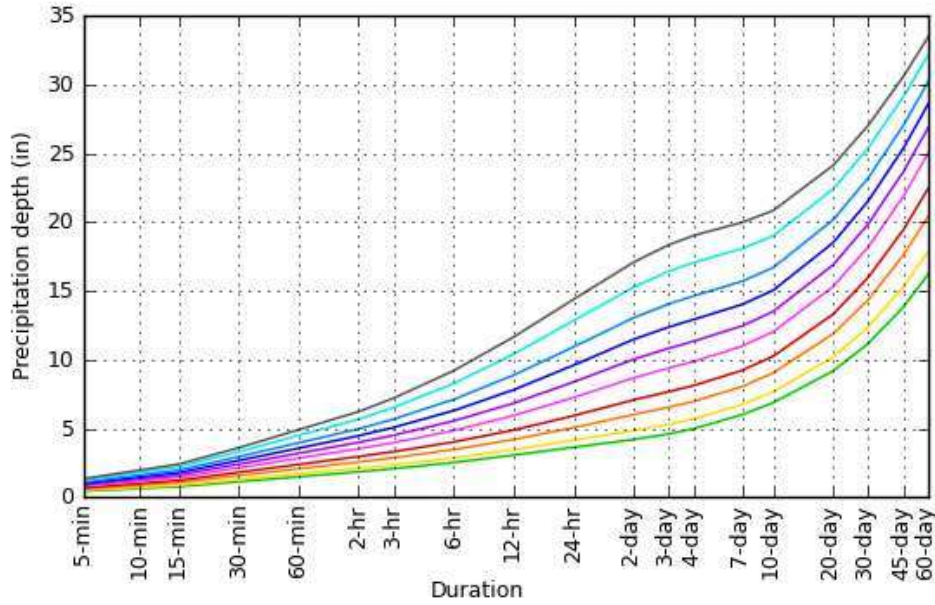
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based depth-duration-frequency (DDF) curves

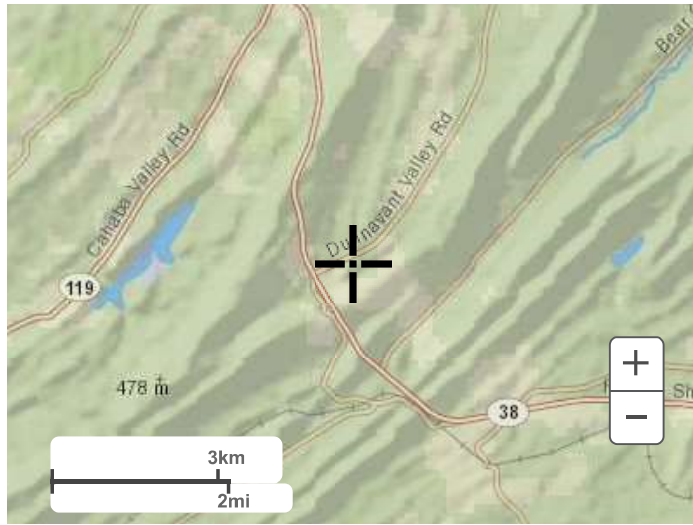
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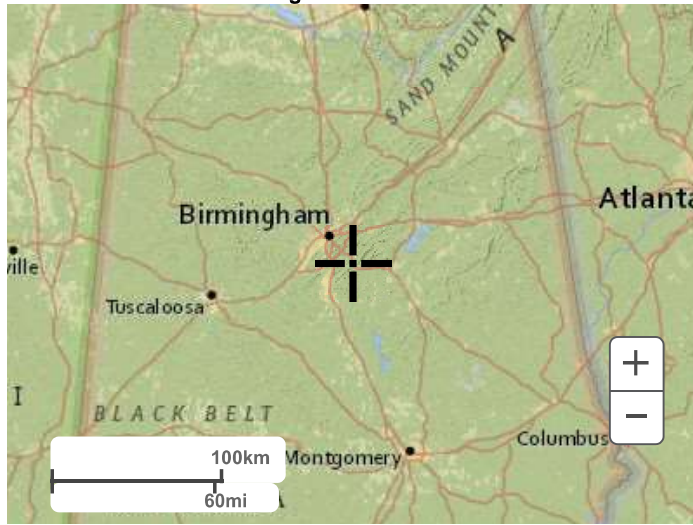
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Maps & aerials

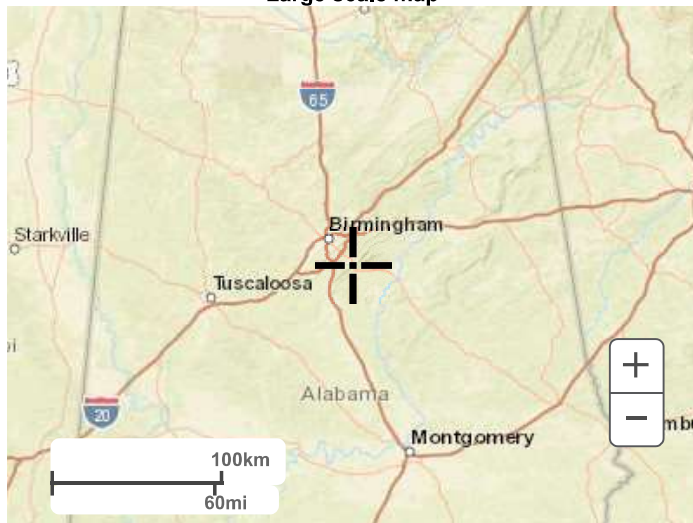
Small scale terrain



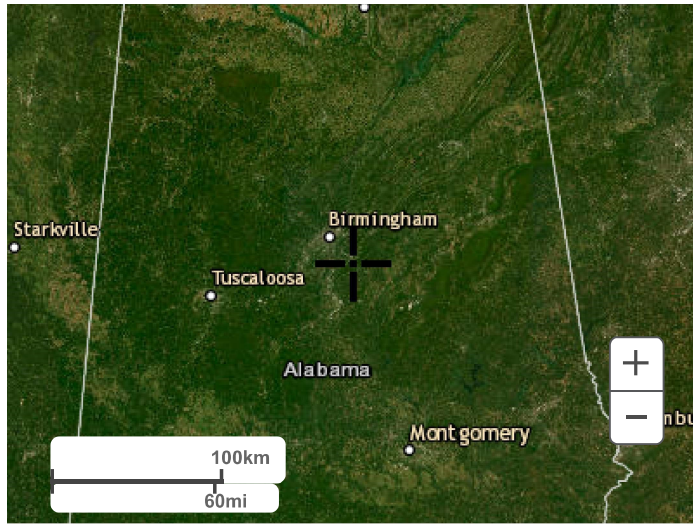
Large scale terrain



Large scale map



Large scale aerial



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Exhibit B

SAMPLE COLLECTION

Standard Operating Procedures



COOSA
RIVERKEEPER®
KEEPING WATCH OVER
OUR WATERS SINCE 2010

Version 1.6 | Date: 1/13/22

Approved by:

_____ Date: _____
Justinn Overton, *Executive Director/Staff Riverkeeper (Project Leader)*

_____ Date: _____
Chad Hoffman, *Program Director (Project Manager)*

_____ Date: _____
Jake Lasseter, *Swim Guide Coordinator (Project Coordinator)*

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SAMPLE COLLECTION

STANDARD OPERATING PROCEDURES

1. SCOPE

This document describes the standard procedures for sample collection, analysis, quality control and other aspects of measuring surface water quality in the field and delivering samples to a laboratory for projects and programs of Coosa Riverkeeper, Inc.

2. SUMMARY OF METHOD

- 2.1. Samples are collected according to the Sample Collection Procedures explained in Section 4.
- 2.2. Samples are identified and Chain of Custody and Field Results forms are maintained according to the procedures explained in Section 5.
- 2.3. Data is managed and maintained following the procedures explained in Section 6.

3. DEFINITIONS

- 3.1. Duplicate samples: are two or more samples representing the same water quality characteristic, time, place, sample collector, and analyst which are independently carried through all steps of the sampling and measurement process in an identical manner. They are used to evaluate the quality of collection technique and how well the sample produced by the technique represents the medium collected.
- 3.2. Field blanks: are sampling vessels filled with distilled water and stored with samples in a cooler of ice and are used by laboratory technicians to verify quality and sterility of field equipment and technique.
- 3.3. Temperature blanks: are sampling vessels filled with water and stored with samples in a cooler of ice and are used by laboratory technicians to verify the holding temperature of samples delivered to the laboratory.

4. SAMPLE COLLECTION PROCEDURES

4.1. Personnel Qualifications

- 4.1.1. No individual shall conduct sampling until they have successfully demonstrated their ability to conduct this technique under the supervision of the Project Leader.
- 4.1.2. Each individual that will conduct sampling must successfully complete a training course with the Project Leader or their designee which includes a field test.
- 4.1.3. Certified sample collectors must be re-certified annually by the Project Leader by demonstrating good technique in a field setting.

4.2. Equipment

4.2.1. Equipment List for Sample Collection

Large Cooler:

- Field Blank
- Temperature Blank
- Ice

Small Cooler:

- Powder-free Disposable Gloves
- Collection vessel(s), typically including sterile 300 mL NASCO Thio-Bags and IDEXX 120 mL sterile preservative-free vessel(s)
- Extra Meter Batteries
- Permanent Marker
- Waterproof Pen
- First Aid Kit
- Trash bag
- Pepper Spray
- Antibacterial Gel
- Ice

Clipboard

- Chain of Custody Form
- Site List w/ Directions
- Brochures, Coosa Riverkeeper Stickers, Swim Guide Business Cards
- Waterproof Pen
- Permanent Marker

Cleaned and calibrated meter(s) and probe(s)

- Screw Driver

Algae Sample Bottle

Water Scoop and/or Pole Sampler as necessary

4.2.2. All disposable equipment are stored in their original packing containers in a clean, dust free environment and not opened until they are used.

4.2.3. Disposable equipment must be disposed of safely and in such a way as not to contaminate samples or unused, sterile equipment.

4.2.4. Take a cooler with ice on sample collection efforts. Ensure a vessel labeled "Field Blank" and a vessel labeled "Temperature Blank" are present in the cooler. If not, contact the Project Leader or supervisor. Retain receipts for ice purchased from stores for reimbursement.

4.2.5. For larger sampling efforts, two coolers may be provided. A large cooler containing the blanks is intended to remain in the vehicle. A small cooler is provided to reduce the weight of equipment being carried to sample sites from the vehicle. Carry the small cooler to the sampling site and place samples in it after collection. Upon returning to the vehicle, transfer samples into the larger cooler. Both coolers should be filled with an appropriate amount of ice to retain a sample holding temperature of less

than 10° C. Be sure that the tops of the Whirl-Pak bags do not get submerged as this could contaminate samples.

4.2.6. Never place food or drinks in sample coolers, which are labeled “NO FOOD OR DRINKS.” A separate cooler may be necessary to transport food and drinks.

4.3. Sample Collection Technique

4.3.1. General

4.3.1.1. Samples for some analyses are collected in vessels to be transported to a laboratory. For these samples, follow “4.3.2 General Technique for Filling Sample Vessels.”

4.3.1.2. Some parameters are measured in the field using meters (such as the YSI Professional Plus or ProQuatro). The collection and analysis of these samples follows “4.3.3 General Technique for Use of Meters.”

4.3.1.3. A wide variety of conditions may exist at a sampling location and requires that best professional judgment be used regarding methodology for collection of representative samples.

4.3.1.4. Sample information should be recorded on the Chain of Custody or Field Results form or in a field notebook with Station ID, Station Name, collection date and time, sampler ID, and any comments. Comments should include a brief description of local weather conditions at time of sampling, if significant (e.g. “light rain” or “very windy”) or if there is anything that may skew the results such as a boat launching.

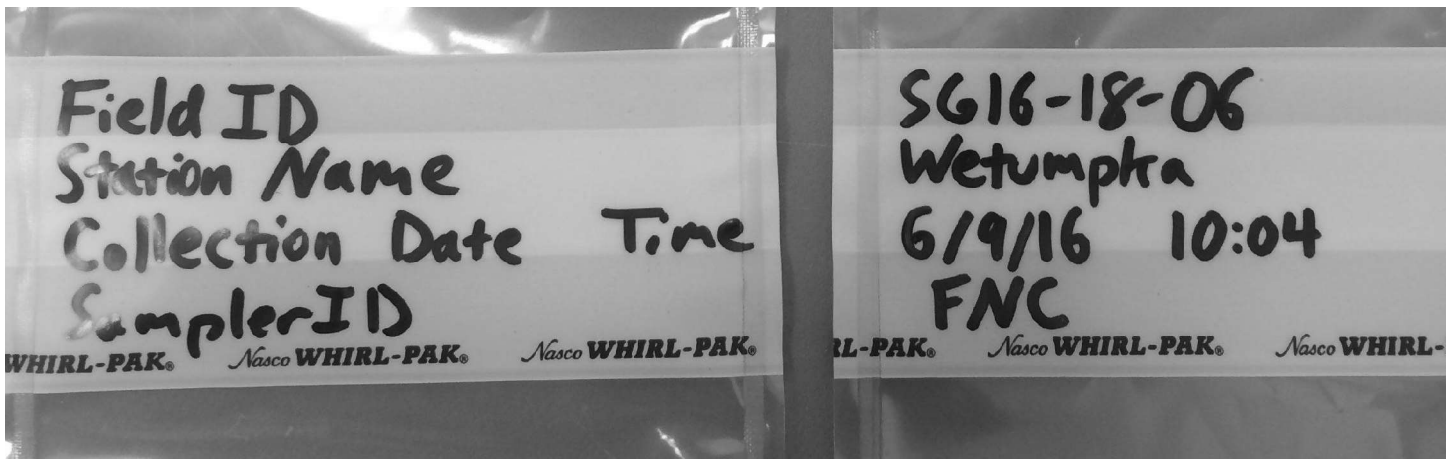
4.3.1.5. Take photographs or video of any unusual water quality characteristics.

4.3.1.6. Add notes if you see anyone recreating in the sampling location

4.3.2. General Technique for Filling Sample Vessels

4.3.2.1. Put on a pair of clean, powder-free disposable gloves before collecting ANY water samples. Check for holes or tears and replace them as necessary.

4.3.2.2. Water samples for bacteria analysis are collected in a clean, sterile NASCO Whirl-Pak (specifically, the 300 mL stand-up Thio-Bag) or other appropriately sized, sterile bottle treated with sodium thiosulfate. Water samples for laboratory turbidity analysis are collected in clean, sterile IDEXX preservative-free 120 mL bottles. Other types of analyses may require different types of bottles; check with Project Leader. Prior to collecting bacteria samples, the vessel should be labeled with the Field ID, Station name, Sampler ID and collection date and time, as seen below.



- 4.3.2.3. Whirl-Pak bags should not be pre-rinsed or opened as they are sterile before collection. IDEXX 120 mL bottles will be sterilized each week before turbidity samples are collected unless the bottles are sealed.
- 4.3.2.4. Remove the top from the Whirl-Pak or bottle and, using the sampling pole, place the bag or bottle (vessel) into the water with the opening faced down and scoop against the current. To avoid contamination, position the mouth of the vessel away from the collector's hand and body while handling the sample. To avoid contamination, place bottle caps with the top facing up on a surface where they are unlikely to become contaminated (typically, the top of the cooler).
- 4.3.2.5. The sampling depth should be six to twelve inches below the water surface to avoid surface scum, unless specified otherwise.
- 4.3.2.6. If using a Whirl-Pak, open by pulling apart the tabs, making certain to keep gloved hands away from the opening of the bag to avoid contamination. Allow air to enter the Whirl-Pak to create an opening, but make sure that the Sodium-Thiosulfate tablet does not fall out. If it does, replace it with a new, sterile Whirl-Pak bag. Some air space should remain at the top of the vessel after collection to allow for adequate sample mixing. Gently support the bottom of the vessel, and tilt it so that water may pour out leaving a little over $\frac{2}{3}$ of the Whirl-Pak full.
- 4.3.2.7. Tightly close bottles with their original cap or whirl shut Whirl-Paks with a minimum of three revolutions then twist metal ties together a minimum of three

twists to seal. Invert Whirl-Pak bags to ensure they do not leak.

4.3.2.8. Immediately place the labeled vessel into a dark cooler with ice.

4.3.2.9. Collect duplicate samples if requested by Project Leader or as necessary.

4.3.2.10. Dispose of gloves and sanitize hands after the sample is collected and stored in the large cooler.

4.3.3. General Technique for Use of Meters

4.3.3.1. Meters have probes which are inserted directly into the water to measure water quality in-situ, but be sure that the black perforated cap is screwed on until snug.

4.3.3.2. The depth of the probe's sensors should be six to twelve inches below the water surface, unless specified otherwise. In some cases, the probe may touch the bottom of the waterway, but be mindful that it doesn't get caught by debris.

4.3.3.3. See Section 4.4 for detailed instructions on use of YSI Professional Plus meters.

4.3.3.4. Results provided by meter should be recorded on the Field Results Form on the opposite side of the Chain of Custody form.

4.3.3.5. Each meter has an identification number written on its face in permanent marker. Always record this identifying number on the Chain of Custody Form so the results can be compared with calibration records.

4.3.4. At a Swimming Beach

4.3.4.1. A swimming beach is a site where a shallow "beach" area extends into a deep body of water, such as a lake.

4.3.4.2. Position the mouth of the sampling vessel away from the collector's hand and body. Move the vessel horizontally in the direction it is pointed to aid in filling the vessel. Collect the sample at a depth between six and twelve inches.

4.3.5. In a Wadeable Stream

4.3.5.1. A wadeable stream is a site where the sampler can wade some distance into the creek with either wading boots, hip waders or chest waders. The deepest part of the stream may not be wadeable, but the sampler can reach mid-stream with the aid of a Sampling Pole.

4.3.5.2. Collect samples using a sample pole from the bank of the stream while ensuring that the samples are collected/scooped going against the current. In some cases, samples may need to be taken from in the stream and not from the bank.

4.3.5.3. Position the mouth of the sampling container/vessel facing upstream and in front of the sampler's position.

4.3.6. From a Boat

- 4.3.6.1. On the upstream side of the boat, position the mouth of the sampling vessel into any current away from the collector's hand. A Sampling Pole or Water Scoop can be used as necessary.
- 4.3.6.2. If there is no current, such as in a reservoir, create a current artificially by pushing the sampling vessel forward horizontally in a direction away from the hand. It may be necessary to kill the boat's engine or idle forward to avoid contaminating the sample with engine exhaust.

4.3.7. From a Bridge

- 4.3.7.1. In some instances, the sampler may not be able to get down into a stream because of access rights or overgrowth on the public right of way. In this instance, sampling from a bridge may be the safest method to sample the stream.
- 4.3.7.2. Sampling from a bridge can be dangerous! Additional safety precautions apply. For example, park on the shoulder near the bridge and turn on vehicle hazard lights so that approaching motorists will see the vehicle and any personnel outside of the vehicle. Be sure that you are visible to any oncoming traffic.
- 4.3.7.3. When sampling from a bridge, place the vessel in the bridge sampler and lower the device with a rope.
- 4.3.7.4. Face the vessel mouth upstream by swinging the sampling device first downstream, and then allowing it to drop into the water, without slack in the rope.
- 4.3.7.5. Pull the sampling device rapidly upstream and out of the water. Take care not to dislodge dirt or other material from the bridge or sampling platform that might fall into the open bottle.
- 4.3.7.6. It is not acceptable to collect any bacteria samples using a bucket sampler.

4.3.8. From a Dock or Pier

- 4.3.8.1. Walk out to the end of the pier, or another location on the pier if specified. Position body so that any current is moving towards the sampler. Care should be exercised to collect the sample in a direction away from the pier.
- 4.3.8.2. Position the mouth of the sampling vessel away from the collector's hand and body. Move the vessel horizontally in the direction it is pointed to aid in filling the vessel. Collect the sample at a depth between six and twelve inches. A Water Scoop or Sampling Pole may be used if necessary.

4.3.9. From a Pipe

- 4.3.9.1. When sampling from a discharge pipe or storm drain, it is important to collect a sample before mixing with ambient water

to get a sample that is representative of the water being discharged from the pipe.

4.3.9.2. Use of a Sampling Pole is typically the best method for collecting a sample from a pipe.

4.3.9.3. Follow “4.3.11 Using the Sampling Pole” and position the sampling vessel so that it fills only with water exiting the pipe and not ambient water. The exact horizontal and vertical positioning of the vessel may vary based on flow. Avoid allowing the vessel to touch the pipe.

4.3.9.4. For pipes discharging a high volume of flow, use only bottles and not Whirl-Paks, as Whirl-Paks are not as rigid and thus difficult to use in extremely high flow situations.

4.3.9.5. In most cases, it is beneficial to collect an additional sample upstream of the pipe to show ambient water conditions.

4.3.10. Using the Sampling Pole

4.3.10.1. The Sampling Pole can be used to aid in collection of a sample that is difficult to reach. For example, the Sampling Pole can be used to collect a sample from mid-channel of a deep, but narrow stream or from an elevated pier. The Sampling Pole generally allows the sampler to collect a sample from a point that is up to around 8 feet away.

4.3.10.2. To use the Sampling Pole, open the clamp to secure a Whirl-Pak bag or another vessel, and expand the length of the pole as necessary to reach the desired sample location.

4.3.10.3. Dip the pole into the water to the desired depth and allow the vessel to fill. If there is no current, the pole will need to be moved swiftly by the sampler in order to generate an artificial current that will aid in filling the vessel. Bobbing the pole slightly up and down while moving the pole may help.

4.3.10.4. Once the vessel is filled to the appropriate level, remove the pole from the water and gently bring the vessel within reach. Generally this is best done by walking hands up the pole. Close the mouth of the bag immediately.

4.3.10.5. Remove Whirl-Paks from the water scoop jaws and seal the Whirl-Pak as usual.

4.3.11. Sampler Safety & Inclement Weather

4.3.11.1. Generally, sampling can be conducted in strong winds and heavy rains, as long as those conditions do not pose a threat of physical harm to the sampler. It is at the discretion of the sampler whether or not they can safely collect a sample in the given weather conditions. It is preferable to avoid collecting a sample than to put a sampler at any risk of danger.

4.3.11.2. Sampling is not recommended during thunderstorms or other major storm events such as tornadoes. In the event that there is a possibility of tornadoes, the Project Leader will cancel that day of

sampling. A sampler who sees lightning nearby should immediately abandon the effort and return to their vehicle for shelter. At this point, the sampler should seek a weather forecast to determine if the storm will pass soon. If the storm passes soon, the sampler may wait in order to finish sampling. If the storm will not pass soon, the sampler may go ahead and move on to the next station or, depending on the forecast, abandon the rest of the day's effort and return collected samples to the laboratory. The waiting time recommended by the National Weather Service is 30 minutes after the last clap of thunder, but it is important to remember that the sampler must meet the EPA holding time of 6 hours in order for those samples to be processed in the lab.

- 4.3.11.3. All Chain of Custody forms are to be printed on waterproof paper and written on using waterproof pens. Note that this ink appears to run somewhat when writing in the rain but will produce legible recording of sampling information. Permanent markers do not perform in the rain; use permanent markers to record information on vessels while in a sheltered area.
- 4.3.11.4. If shelter (e.g. pavilion, bridge overpass, or vehicle back hatch) is available very close to the sampling location, the sampler may collect the sample and bring it to the sheltered area to be fully documented in the Chain of Custody form. In this situation, it is as important as ever that the sampler seals the sampling vessel immediately after sample collection to prevent it from being contaminated by rain water or debris.
- 4.3.11.5. Follow all traffic regulations and any other applicable laws, regulations and rules.
- 4.3.11.6. Be aware of surrounding conditions (weather, animals, plants, people). If a sampler feels unsafe or uncomfortable under any circumstance, immediately abandon the effort and seek safety. Call law enforcement if necessary.
- 4.3.11.7. Immediately notify the Project Leader of any adverse or dangerous conditions that hamper sample safety or ability to complete the effort in a timely or usual manner.

4.4. Analyzing Water Chemistry with the YSI Professional Plus

- 4.4.1. Gloves should always be worn when using meters.
- 4.4.2. Manuals for all meters are stored in the laboratory (in a binder labeled "Meter User Manuals") and can be referenced for additional operation and maintenance information that is not found herein. These Standard Operating Procedures cover the basic information related to using each meter; other information contained in the user manuals are incorporated herein as Standard Operating Procedures by reference.

4.4.3. YSI Professional Plus

- 4.4.3.1. The YSI Professional Plus meter can be used to measure water temperature, pH, conductivity/Specific Conductance, dissolved

oxygen, oxygen saturation, and more (with additional probes installed).

4.4.3.2. The instrument should be calibrated for pH and oxygen before every sampling effort. The instrument should be calibrated for conductivity once per week, or before every sampling effort if results appear “jumpy” or inaccurate. This activity is performed in the laboratory and covered under the Laboratory Standard Operating Procedures.

4.4.3.3. Analyzing samples

4.4.3.3.1. Remove the plastic storage cup from the probe head and install the black metal probe guard before taking the first sample of the effort. This step only needs to be completed once per effort (the black probe guard can be left on the rest of the day). Exercise extreme caution during this step to not let either the cup or guard touch the individual sensors.

4.4.3.3.2. Power the meter on.

4.4.3.3.3. Lower the probe into the water to the appropriate depth, and wait until the values on the screen stabilize before logging a sample.

4.4.3.3.4. Press “Enter” as “Log One Sample” is highlighted on the main screen.

4.4.3.3.5. Scroll down to “Site” and change site name to current location.

4.4.3.3.6. Scroll down again if necessary to change the folder to the appropriate project.

4.4.3.3.7. Gently bob the probe cable up and down (over approximately two inches of vertical travel) if there is no current. This keeps “clean” water moving over the sensor head which is important as the dissolved oxygen probe consumes oxygen from the water to take a reading. Holding the probe still in calm water could lead to artificially low dissolved oxygen readings.

4.4.3.3.8. Scroll to “Log Now!” and press “Enter.”

4.4.3.3.9. The sample results are now stored in the meter’s memory and can be retrieved under the “File” menu for recording in the Field Results Form.

4.4.3.3.10. Power the meter off.

4.4.3.3.11. After the last sample of the effort, the black probe guard should be removed and the clear plastic storage cup reinstalled. The sensor head should be gently rinsed with distilled or tap water before reinstalling the storage cup. Leave a small amount of water in the storage cup as the sensor head must be kept moist and not allowed to dry out.

4.5. Sample Handling & Preservation

- 4.5.1. Samples must be transported on ice and held below 10° C, but not frozen, during transport. Samples must not be allowed to submerge in water. Bagging ice in zip-lock style bags helps prevent ice melt from filling the cooler up with cold water. Gel-type reusable ice packs do not perform as well as traditional ice and thus ice is preferred.
- 4.5.2. Hold time: Bacteria Samples must be delivered to the laboratory within six hours after collection time. Other sample hold times are more generous. Note that if delivering samples to a commercial laboratory the samples may need to arrive sooner and should typically only be delivered before 1pm and only on Monday through Thursday. As a courtesy, always inform a commercial laboratory in advance of delivery.
- 4.5.3. All samples shall be fully identified and Chain of Custody forms must be maintained at all times.
 - 4.5.3.1. In the event the sample collector hands samples off to another individual to bring to the laboratory, Chain of Custody forms must be filled out to reflect this exchange.
 - 4.5.3.2. Chain of Custody forms will be reviewed and signed by a certified laboratory technician upon receipt at the laboratory.
 - 4.5.3.3. All sample collection activities shall be traceable, through field records or notes, to the person collecting the sample. All maintenance and calibration records for sampling equipment shall be kept so that they are similarly traceable.

4.6. Field Quality Control & Quality Assurance

- 4.6.1. Duplicate samples for field quality control should be collected and analyzed for a minimum of 10% of samples or at the frequency specified by the Project Leader. This means if samples are being collected from ten stations, duplicates should be collected for at least one station. If samples are being collected from between eleven and twenty stations, duplicates should be collected for at least two stations, ideally spaced apart throughout the effort.
- 4.6.2. Field blanks should accompany every sampling cooler unless otherwise directed by the Project Leader. The field blank should be filled with distilled water from an unopened container from the laboratory before leaving to collect samples. Distilled water is used for all dilutions and is purchased in 1 gallon containers. Distilled water is stored in the laboratory at all times. When distilled water is used, sanitize the release valve with a Clorox wipe and wait for the cleaning solution to dry (~5 min.). Lab technicians must wear proper PPE when the distilled water is transferred to labeled polypropylene bottles for dispensing to sample bottles. Please ensure that the date a new distilled water container gets opened is written on the container.
- 4.6.3 The results of the field blank should indicate no bacteria is present and verify that cross-contamination in the cooler does not exist. It is not appropriate to use the temperature blank as a field blank because the

temperature blank will have a non-sterile thermometer inserted into the vessel at least once during the day. If a field blank comes back with an E. coli count greater than “<1,” all samples that were in the same cooler as the field blank must be qualified and should be excluded from reporting to the public for awareness campaigns like Swim Guide.

5. SAMPLE IDENTIFICATION

5.1. Station Location Identification

- 5.1.1. The Station ID shall be assigned by the Project Leader. This ID may be an alpha-numeric code that indicates both the particular study as well as the station and other information.
- 5.1.2. The Project Leader shall exercise due caution to ensure that duplicate Station IDs or sample station numbers are not used.
- 5.1.3. The exact description of all sampling stations associated with Station IDs or sample station numbers shall be documented in the field data sheet, in the project study plan, and/or in the Quality Assurance Project Plan.
- 5.1.4. For Swim Guide monitoring, the Station ID should follow this format: SG(2-digit Year)-(2 digit designation for station). For example, the most North station in the 2021 Swim Guide program with 44 stations is SG21-01.
- 5.1.5. A single physical station may have multiple Station IDs associated with it for sampling purposes. However, in the Water Reporter database, each physical station has a single unique ID and all samples associated with that station, regardless of Station ID, are filed under that unique ID.
- 5.1.6. It is imperative that all IDs stay consistent throughout the future of Swim Guide, so that Water Reporter data does not become disorganized.

5.2. Field ID

- 5.2.1. If sampling is conducted as part of a specific project, the project’s QAPP or study plan will dictate the format of Field IDs for that project. If sampling is being conducted that is not part of a specific project, the sampler may use their best judgment to create a Field ID that will be easily interpreted and noted in the Field Results form or a field notebook where those samples were collected.
- 5.2.2. For project-based sampling, the Project Leader should attempt to assign Station Numbers and a Project Code so that Field IDs and Lab IDs can be used that include the Station ID. Generally, this should be as follows: a 4-character Project Code (e.g. “CHOC” for Choccolocco Creek Monitoring Project or “SG16” for Swim Guide 2016), then a two-digit Station Number (assigned north to south or in the order of the sampling route), then a two digit number which indicates, sequentially, the sampling effort. A three-character modifier can be used after this string to modify the sample to indicate if it is a duplicate sample or a follow-up sample. On the next page is an example of a sample ID.
- 5.2.3. All duplicate samples should be identified as “(FieldID)-DUP”

5.2.4. In instances where a follow-up sample is collected for a Swim Guide site (often on a Friday following a “bad” Thursday result), the Field ID designation should be the same Field ID as the sample that is being followed up on, but include an additional 3-digit modifier abbreviation for the day of the week the follow-up sample is collected. For example, a Friday follow-up on sample SG16-18-06 would have a Field ID of SG16-18-06-FRI and a follow-up on that same sample the next Tuesday would have a Field ID of SG16-18-06-TUE (in other words, one can think of the Swim Guide week as starting on Thursday). If a duplicate of a follow-up sample is also collected, the Field ID would be SG16-18-06-FRI-DUP, for example.

5.3. Time

5.3.1. Time should always be recorded in 24-hour time format to avoid confusion.

5.3.2. Time should be recorded as accurately as possible to the actual time of the event being noted, but in all cases, within five minutes of accuracy.

6. DATA MANAGEMENT

6.1. Sample collectors may not distribute any data unless expressly authorized by the Project Leader.

6.2. Sample collectors must adhere to the Confidentiality Policy and Spokesperson Policy of Coosa Riverkeeper, Inc. when discussing sampling activities and results.

6.3. The Project Leader is responsible for ensuring that all data is properly maintained, secured, and archived.

6.4. All laboratory analysis reports shall be reviewed by the Project Leader for accuracy before distribution. The laboratory and field analysis reports shall also be inputted into the correct Google Sheets form on a computer based on the appropriate week. Field technicians will be responsible for inputting their field analysis reports into the computer. The lab technician will review that this process is completed. Logs, records and final reports must be reviewed and verified by the Project Leader or his designee before being distributed to the public or private individuals.

6.5. Digital versions of all data should be inputted into the corresponding Google Sheets document that will later be uploaded into the Water Reporter database with a backup copy securely stored off site. The Program Coordinator is in charge of making sure all data is correctly input into the Water Reporter database.

VERSION TRACKING

Version	Date	Reviewer	Changes
1.0	3/30/17	Frank Chitwood	This version collected sections relevant to field work from Standard Operating Procedures for Surface Water Quality Field Measurements v. 3.0 and Standard Operating Procedures for Bacteriological Monitoring 2.1. This change will facilitate training and certification by separating field operations and laboratory operations into separate SOPs. Section 5.3 Time was added. Other minor edits were made to correct typographical errors or update instructions for better clarity or to reflect current equipment.
1.1	4/17/18	Karli Riley	Minor typographical changes and improved clarity. Additions to sample safety section.
1.2	4/9/19	Karli Riley	Use of gender neutral pronouns. Edited description of how to use Water Scoop and Sampling Pole due to new design. Minor typographical corrections and improved clarity. Removed "Field Materials Checklist" because of repetition. Improved "Safety Protocol" by including a new Safety Appendix.
1.3	3/3/20	Tucker Watson	Reviewed new staff changes, logo change, structural change to indentions and bullets. Added to sections 4.6.2, 6.4 and 6.5.
1.4	3/15/21	Jake Lasseter	Adjusted paragraph placement, edited staff names to reflect staff changes
1.5	4/23/21	Jake Lasseter	Fixed formatting, added Chad, and added/omitted sections that are no longer relevant
1.6	1/13/22	Jake Lasseter	Changed the formatting to be more concise and easier to follow



Turbidity Calibration & Readings

Summary: Instructions on how to calibrate and read turbidity samples using the HACH 2100Q Portable Turbidimeter.

What You'll Need:

- Water Bath
- Turbidity Bottles (120 mL bottles without sodium thiosulfate)
- Paper Towels
- Turbidity Standards (20, 100, 800 NTU)
- Rite in the Rain waterproof pen
- Current Chain of Custody Forms
- Lab Bench Sheet (via Google Sheets)

Instructions to Calibrate:

- **IF KEPT ON ICE:** Turn on the water bath and wait for it to reach 25 degrees Celsius if samples were on ice or refrigerated. Wearing nitrile gloves, remove the turbidity samples from the lab refrigerator or cooler and place them in the heated water bath. Wait for the temperature to rise back to 25 degrees Celsius. You can use a temperature blank to ensure that the samples are 25 degrees Celsius.
- **IF NOT KEPT ON ICE:** Follow below steps
- While you wait, calibrate the turbidity meter:
 - Turn on the meter by pressing the blue power button at the bottom
 - Click the line graph icon on the bottom left of the meter.
 - Remove the glass vial stored inside the meter, set aside in a safe location.
 - Begin calibrating the meter using the 20 NTU solution, then move on to the 100 NTU and 800 NTU solutions (**before inserting the**

solutions, make sure to invert at least 3 times, align the arrows on the bottle with the arrow on the meter, and make sure the vial is clean and dry)

- Click “Read” and wait on each solution to calibrate before moving to the next solution.
- After the 3 calibration standards have been read, click “Store” to record the calibration.
- Insert the 100 NTU verification standard after storing the calibration standards, follow the same procedures as the calibration standards
- Save your calibration and get ready to read your turbidity samples.
- Transfer the calibration info to the turbidimeter calibration log

Instructions to Read Samples:

- Grab the samples and place them in order
- Locate the appropriate Chain of Custody form for the route & a pen
- Pour out the water in the vile that was stored in the turbidity meter prior to calibration
- Starting with the first site, fill the vile with the sample and triple rinse with the sample (pour the sample in the vial and **dump** 3 times).
- Wipe off the exterior of the sample.
- Place the sample vial with the white arrow and align with the arrow on the turbidity meter.
- Make sure to invert the sample a minimum of 3 times before reading the sample.
- Click “Read” to run the sample
- Record the number after the beep on the Chain of Custody Form.
- Repeat the process of triple rinsing for each sample, inverting the sample 3 times, click “Read”, and record the number on the appropriate Chain of Custody Form until you have finished with all samples.
- Empty all turbidity bottles and rinse with warm tap water and disinfectant soap in the lab. Place the rinsed bottles in a plastic rack with paper towels underneath to dry, place the numbered lids in a plastic bin to dry as well.

Instructions to Record Samples on the Lab Bench Sheet

- Add the data that is recorded on the Chain of Custody Form to the Field tab on the current week's Lab Bench Sheet.
- This will auto-populate other areas of the site and will be used on the CoosaRiver.org/SwimGuide page.
- If this is for a separate sampling effort apart from Swim Guide, take pictures of the sample next to the NTU value that the meter projects for the same sample.

Exhibit C

EXHIBIT C
ACCESS AGREEMENT

This **ACCESS AGREEMENT** (“Agreement”) is entered into as of the 16th day of June, 2023, by and between Coosa Riverkeeper, Inc. and Newcastle Homes, Inc. (“Newcastle”).

WHEREAS, Coosa Riverkeeper, Inc. desires access to portions of the property known as the Dunnivant Valley Subdivision (“Property”), which is located on Dunnivant Valley Road in Shelby County, Alabama (the portions over which Coosa Riverkeeper, Inc. has the right to access are identified on Attachment 1, attached hereto, and hereinafter said portions are referred to as the “Site”), so that Coosa Riverkeeper, Inc. may conduct certain water sampling activities to evaluate compliance with the Alabama Department of Environmental Management’s (“ADEM”) Clean Water Act National Pollutant Discharge Elimination System Construction Stormwater General Permit issued to Newcastle (Permit No. ALR10BHC4) (hereinafter “Permit”); and

WHEREAS, Newcastle, the owner of the Property, has agreed to allow Coosa Riverkeeper, Inc. access to the Site pursuant to the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the foregoing mutual obligations, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Newcastle hereby grants to Coosa Riverkeeper, Inc. access to the Site under the following terms and conditions:

1. Right of Access. Coosa Riverkeeper, Inc., and its officers, employees, agents, contractors, subcontractors, and/or representatives (hereinafter collectively referred to as “CRK”), are hereby granted a temporary and non-exclusive license and right to go upon and across the Site for the sole purpose of allowing CRK, at its sole cost and expense, to collect water samples at Newcastle’s permitted outfalls and/or for purposes of establishing background (as that term is used and defined in Part I.D. of the Permit) in the receiving water(s), and measuring the NTUs of said samples to determine compliance with Part I.D. of the Permit (the “Work”). The Work shall be undertaken in a manner that minimizes the areal extent of the Site where, and the amount of time when, access is required. The access granted by this Agreement, and any written modification thereto, shall not extend to any other person or organization. The access granted herein shall not create the relationship of landlord and tenant, shall not create an easement or right-of-way in favor of CRK, and shall not create a covenant running with the land. CRK’s presence on the Site is authorized solely to the extent necessary to accomplish the Work.

2. Costs and Damage to Property. CRK agrees that: (a) the Work shall be designed, planned, and conducted on the Site in such a way as to minimize, to the maximum extent possible, any unreasonable impact to Newcastle and/or any business operations on the Property; (b) CRK shall pay all costs and expenses of the Work; (c) CRK is solely and exclusively responsible for the safety and security of all materials, equipment, tools, property, supplies and personnel it utilizes at, on or near the Site in connection with the Work; and (d) neither CRK, nor any of CRK’s vendors, consultants, contractors or subcontractors shall file or maintain any mechanic’s lien, materialman’s lien or any other type of lien or claim against the Site or any other property owned

by Newcastle and that CRK shall, at its sole cost and expense, immediately satisfy and remove any such lien or claim should any such lien or claim be filed. CRK, at its sole cost and expense, shall restore and repair any damage to the Site, if any, caused by or arising from the Work, to substantially the same condition as existed prior to CRK's access to the Property.

3. Notice of Work Activities. CRK shall provide reasonable advance notice (i.e., at least 40 minutes notice prior to accessing the Site) to Newcastle, in accordance with Paragraph 7, of the expected dates, times, duration, and location of CRK's activities and presence on any portion of the Site so that Newcastle may, if it so desires, have its own representative present at the time the Work is conducted. Newcastle, in its sole discretion and at its sole expense, reserves the right to take split samples and/or engage in any other reasonable activity on the Site at the time of any Work conducted by CRK. Newcastle agrees not to unreasonably delay CRK's Work by carrying out any of the aforementioned activities. Likewise, the cost of any of the aforementioned activities undertaken by Newcastle shall be borne by Newcastle.

4. Dissemination of Information. Unless required by law, CRK shall not reveal, or cause to be revealed, to any third party (including any government body (e.g., state, city, agency)) any and all: (a) sampling and/or testing water, (b) sampling and/or testing data, (c) sampling and/or testing results, and/or (d) photographs depicting sampling vessels, CRK collecting and/or analyzing samples, and/or testing data/results; in each case, created and/or obtained pursuant to the Work authorized by this Agreement (hereinafter, collectively "Sampling Information"). CRK may, however, reveal photographs or drone footage of the Site (subject to the aforementioned exceptions) to third parties. Nothing herein shall prohibit CRK from discussing with any third party Newcastle and/or its compliance with the Permit. This provision shall survive termination of this Agreement.

5. Limitation on Access. CRK shall not have access to any portion of the Property and/or Site for any other purpose except as provided herein, or except as may be authorized pursuant to written modification of this Agreement or any separate written agreement.

6. Documentation. CRK shall email to Newcastle, at CRK's sole expense, copies of all Sampling Information (excluding the actual water sampled), which are a result of CRK's Work. This provision shall be specifically enforceable by Newcastle.

7. Notice. Notice required under, or related to, this Agreement shall be sent by CRK to Newcastle as follows:

CRK shall contact the following Newcastle representatives via a text message or separate messages (utilizing standard messaging platforms (e.g., SMS)) at least 40 minutes prior to accessing the Site.

Brandon Todd: 205-529-2594
Kyle Ford: 256-499-1281
John Crawford: 205-261-3095

8. Release and Indemnification. CRK hereby releases and promises to protect, indemnify, and hold harmless Newcastle and its shareholders; any divisions, subsidiaries, affiliates, or related entities and persons, including officers, directors, and shareholders of Newcastle; any partners, predecessors, successors, representatives, insurers, assignees, agents, employees, attorneys, executors, administrators, and heirs of Newcastle; and any and all persons acting by, through, or in any way on behalf of Newcastle (hereinafter, collectively “Newcastle Parties”), from and against claims, suits, demands, liabilities, losses, liens, damages, penalties, judgments, costs, fines and expenses, including reasonable attorneys’ fees, which result from injury to or death of any person or any damage to real or personal property to the extent caused by or alleged to be caused by CRK’s negligent, grossly negligent, reckless, or willful and wonton: (a) completion of the Work; and/or (b) act, error, and/or omission on the Site or any other adjacent property. This release and indemnity shall survive this Agreement and shall survive the cessation of access to the Site by CRK and delivery of any documents and data in connection therewith.

9. Insurance. CRK shall, prior to entry onto the Site, purchase and maintain for the duration of this Agreement, the insurance policy(ies) described below:

- a. Commercial General Liability – One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) in the aggregate for bodily injury and property damage.
- b. Automobile Liability – One Million Dollars (\$1,000,000) combined single limit.

CRK shall provide Newcastle with a certificate of insurance for review and approval which reflects insurance coverages which meet the foregoing requirements. Such certificates shall also provide for thirty (30) days advance written notice to Newcastle in the event of cancellation or material changes in the foregoing required insurance coverages.

To the fullest extent permitted and allowed by applicable law, CRK waives its rights against the Newcastle Parties for recovery of damages to the extent those damages are covered by insurance requirements of this Paragraph, provided that nothing herein shall affect CRK’s respective insurers’ rights to pursue subrogation.

10. Compliance with Law. CRK shall comply at all times and in all respects with all federal, state, and local laws, rules, and regulations applicable to the Work and its activities under this Agreement including without limitation those pertaining to safety, environment, and health. CRK shall obtain any necessary permits or approvals prior to completing the Work, which shall be performed in accordance with customary professional standards.

11. Termination. Access granted to CRK by this Agreement shall terminate when the Consent Decree between CRK and Newcastle is terminated.

12. Miscellaneous.

- a. Newcastle reserves the right to pursue damages for any and all unreasonable property damage to Newcastle on and/or within the Property due to CRK’s Work.

- b. CRK and Newcastle acknowledge that the arrangement memorialized in this Agreement shall not establish any precedent for CRK to access and/or request access to any other property owned and/or operated by Newcastle. Further, the parties agree that they will neither use, nor attempt to use, this Agreement, any part of this Agreement, or any actions taken pursuant to this Agreement, to assert any right (explicit or implied) to access and/or request access to any other property owned and/or operated by Newcastle.
- c. This Agreement shall be interpreted under the laws of the State of Alabama. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but together shall constitute one instrument. Any executed copy of this Agreement transmitted by facsimile, telecopy, electronic mail or any other method of electronic transmission shall be treated in all manner and respects as delivery of an original. Each party warrants that it has authorized signature by the person signing on its behalf.
- d. If any provision of this Agreement is held to be invalid, void, or unenforceable, such provision shall be deemed stricken and the remaining provisions shall continue in full force and effect, and shall be read to be workable to the fullest extent possible. This Agreement cannot be amended or modified except by a writing executed by all parties.
- e. This Agreement is the entire agreement and understanding between the parties, and any and all prior or contemporaneous proposals, negotiations, agreements, commitments, or representations, oral or written, are merged herein. The rights and obligations of this Agreement shall bind and inure to the benefit of each of the parties, as well as their respective legal representatives, heirs, successors, and assigns. All obligations, covenants, and indemnities under this Agreement shall survive, and continue to be enforceable after, termination.
- f. The failure of any party to insist on strict performance of any or all of the terms, conditions, rights, or obligations herein shall not constitute a waiver or relinquishment of any right afforded said party. No waiver by a party of any breach or default hereunder shall be considered valid, unless made in writing and signed by the waiving party, and no such waiver shall be deemed a waiver of any subsequent breach or default.

IN WITNESS WHEREOF, the parties have hereunto caused this instrument to be executed effective as of the date written above.

Glenn Siddle

Newcastle Homes, Inc.

By: Glenn Siddle

Its: Chief Executive Officer

Date: 06/16/2023

Justinn Overton

Coosa Riverkeeper, Inc.

By: Justinn Overton

Its: Executive Director and Riverkeeper

Date: 5/1/23

Attachment 1



CONSTRUCTION PLANS FOR:
MELROSE LANDING
 CHELSEA, ALABAMA

ISSUED FOR APPROVAL

PROJECT INFO:
 INSITE JOB No. 2022220
 DATED: 3/4/22

THIS SHEET CONTAINS:
 EROSION CONTROL
 PLAN SHEET INDEX

SCALE: 1" = 100'
 SHEET 28 OF 49

EC-1

