

Howell, Beth (MRC)

From: Eversole, Mark (MRC)
Sent: Tuesday, December 23, 2014 9:46 AM
To: Howell, Beth (MRC)
Subject: FW: JRWA - Responses to 12/12/14 & 12/17/14 DEQ Emails & Inquiries
Attachments: 34967C-LOUISA-FLUVANNA-OVERALL 24X36.pdf; 34967C-RWPS-SITE-ENVIRONMENTAL IMPACTS.pdf; 34967C-RWPS-SITE-RAW WATER INTAKE AND SITE PLAN.pdf; DEQ Response - Sarah Marsala 20141222.pdf

.....14-0343

From: Joe Hines [<mailto:Joe.Hines@timmons.com>]
Sent: Tuesday, December 23, 2014 9:38 AM
To: Marsala, Sarah (DEQ)
Cc: bbd304@comcast.net; Steve Nichols; David Saunders; Christian Goodwin; Steven.A.Vanderploeg@usace.army.mil; Eversole, Mark (MRC)
Subject: JRWA - Responses to 12/12/14 & 12/17/14 DEQ Emails & Inquiries

Sarah,
Thank you for your time recently and we hope you have safe travels over the holidays. Please find attached our responses to your recent emails and inquiries. As noted previously, we'll be more than glad to spend a day with you and your staff working through any outstanding items.

If you have any other questions, please don't hesitate to reach out to us.

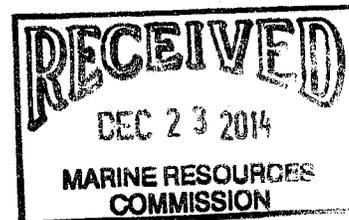
Wishing everyone's family a happy and joyous Holiday Season!

Respectfully,
Joe

Joseph C. Hines, PE, MBA
Principal

TIMMONS GROUP | www.timmons.com
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
Office: 804.200.6380 | Fax: 804.560.1438
Mobile: 804.615.2162 | joe.hines@timmons.com
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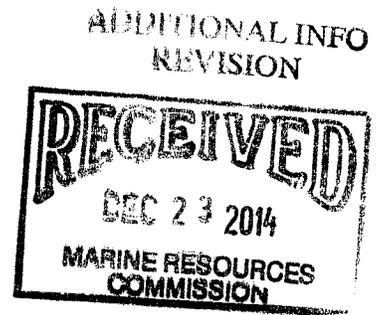
ADDITIONAL INFO
REVISION





December 22, 2014

Ms. Sarah K. Marsala
Surface Water Withdrawal Project Manager
Department of Environmental Quality
629 East Main Street
Richmond, VA 23219



**Re: Joint Permit Application Number 14-0343
Response to December 12, 2014 Email and December 17, 2014 follow-up email
James River Water Supply Project, James River Water Authority**

Dear Ms. Marsala,

Thanks for your time recently. Below are our responses to your recent emails and telephone inquiries:

1. *As discussed on Dec. 9th, the following information is still needed for the proposed surface water impacts.*

a. *The extent of the proposed impact area depicted on the plan view.*

The extent of the proposed impact area for the river has been revised on the attached Sheet No. 1 of 2 dated 12/19/2014. The limits of the **temporary impacts for the intake structure installation are 0.32 acres** (200' by 70' or 14,000 SF) and the limits of the **permanent impact for the intake structure are 0.014 acres** (30' by 20' or 600 SF).

b. *The linear feet of impact to the James River that is associated with the proposed intake.*

The linear feet of impact to the James River is **200 LF of temporary surface water impact and 30 LF of permanent surface water impact.**

c. *Consistent labeling of the surface waters and impact areas identified on the plan view.*

Labeling has been revised accordingly. Please see attached Sheet No. 1 and 2 dated 12/19/2014.

d. *A legend on the plan view that identifies what meaning of each symbol used.*

Legend has been revised accordingly. Please see attached Sheet No. 1 of 2 dated 12/19/2014.

2. *To assist in our review of the table entitled "Summary of County Approved Water Supply Plans with Project Demands," please provide the Excel version. Once we have reviewed this item, we will provide any follow-up comments.*

Excel spreadsheet has been provided in email to DEQ dated Wed, December 17, 2014 and discussed with you on Thur, December 18, 2014.

3. *The proposed peak ratios have been revised again in the recent submittal, increasing the peak day ratio from 1.87 to 2.05. Provide a discussion regarding the revision and justification for requesting a higher value, which results in the requested withdrawal volumes.*

The proposed peak ratios have been revised in accordance with previous discussions with DEQ. Per the spreadsheet forwarded to DEQ on Wed, December 17, 2014, the proposed peak ratios have been revised to the following:

Proposed Peak Month:	1.62 (this accounts for the use of the NEC WTP / Supply)
Proposed Peak Day:	1.89

Per the data reviewed for the current Zion Crossroads usage (and provided in letter to DEQ dated September 12, 2014) a 1.62 peak month factor would be consistent with the previous peak months in the system at Zion Crossroads.

Also as noted in our September 12, 2014 response, water service to the Zion Crossroads and Ferncliff Service Areas will be brought online first (by 2017), with connections to the other service areas coming at later dates. Our request for the peak month factor was initially based upon the historic water usage for the Zion Crossroads area and is consistent with the water supply plans developed for each County.

While we appreciate DEQ's desire to provide a peak month demand limit based upon mature systems in place throughout the region, we also believe the requested peak month is appropriate given that this will be a predominantly new system (and will be in it's infancy for the first several years in operation) that will operate in a manner consistent to the current system at Zion Crossroads.

Once the full system has been installed and has matured (by the end of the proposed permit period, 2030), we believe it will be appropriate for DEQ to look at the historic monthly usage specific to this system and then assign a new peak monthly factor based upon this specific system with the permit renewal in 2030.

4. *Provide the following information for the return flows to the James River watershed:*
- What is the distance, in river miles, between the following two return flows and the proposed intake point: Columbia CWS and Palmyra CWS / Fluvanna CWS / Economic Development.*

Please see attached map entitled "JRWA Overall Map Indicating Demand Centers and Return Flows to the James River" dated December 19, 2014. Per the map:

Fluvanna CWS / Economic Development Area	24.1 river miles
Palmyra CWS	15.9 river miles
Fork Union CWS	6.7 river miles
Columbia CWS	0.61 river miles (downstream)

- Return flow percentages for each of the 3 return flow points were provided for the 15 year and 30 year planning period in a table on the map entitled "JRWA Overall Map Indicating Demand Centers and Return Flows to the James River." A different percent return flow for each of the return flow points was provided on the callout label indication the location of those return flows. For example, Fork Union has return flow of 6.0% and 5.2% for the 15 year and 30 year planning period, respectively; however, the callout for Fork Union has a value of 5.41%. Discuss what this other value represents.*

ADDITIONAL INFO
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This was an inadvertent error on the map. We have corrected the map entitled "JRWA Overall Map Indicating Demand Centers and Return Flows to the James River" dated December 19, 2014. Percentage of return flows have been based upon 80% non-consumptive use (or 80% total return flow to the river basins). Please see table entitled "James River Return Flow Summary" on this map and below:

James River Return Flow Summary	15 year 2030 Average	30 year 2045 Average	Return Location
Palmyra CWS, Fluvanna CWS, Economic Development Areas	34.0%	32.8%	Via Rivanna River
Fork Union CWS	5.3%	4.7%	Via North Creek
Columbia CWS	0.1%	0.1%	Directly to James River
Total Flow Returned to the James River	39.4%	37.6%	

Consumptive Use

Based upon a conversation with you on December 16, 2014, it was noted that normal consumptive use in a mature system ranged from 20% to 30%. In your follow-up email dated December 17, 2014, you requested more information / justification regarding the 10% consumptive use proposed in the original application. As we discussed on December 16, 2014, we noted we would consider adjusting the consumptive use upward to provide a more conservative approach for DEQ's modeling. Based upon the revised spreadsheet forwarded to DEQ on December 17, 2014, **we have revised the consumptive use to 20% for the system, which results in 80% non-consumptive use (or total return flow to the river basins).** Since the system will be relatively new, we believe this consumptive use will be reasonable as we anticipate minimal losses throughout the system.

We hope this adequately addresses your concerns and questions. As discussed previously, we'll be more than glad to spend a day with you and your staff working through the various items such that we can get the draft permit issued in a timely manner.

Wishing you a happy and joyous Holiday Season!

Respectfully submitted,
Timmons Group



David J. Saunders, PE
Principal



Joseph C. Hines, PE, MBA
Principal

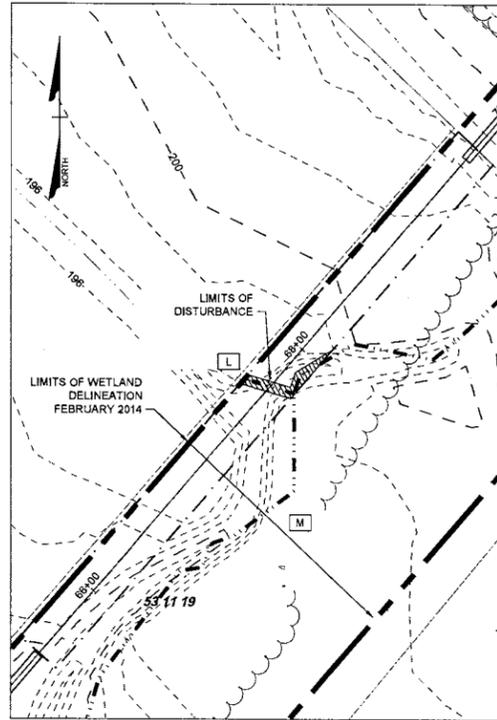
Attachments:

1. Environmental Impact Summary Sheet Nos. 1 and 2 dated 12/19/2014
2. JRWA Overall Map Indicating Demand Centers and Return Flows to the James River dated December 19, 2014

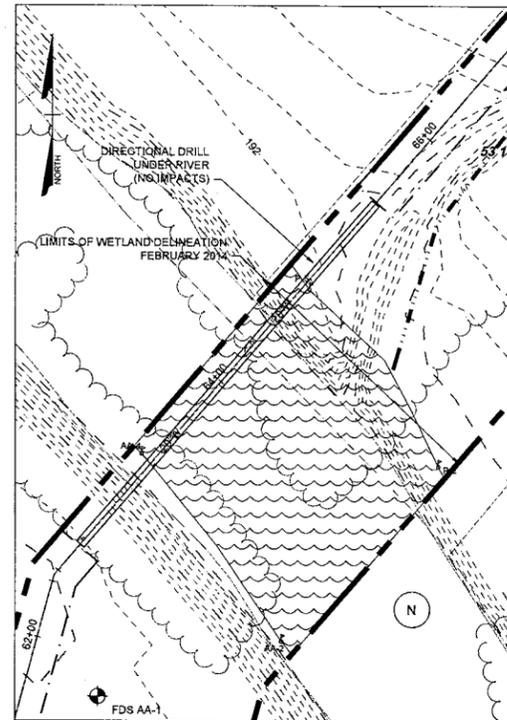
- cc: Mr. Goodman B. Duke, Chairman of James River Water Authority (Via Email)
Mr. Steven M. Nichols, Fluvanna County Administrator (Via Email)
Mr. Christian Goodwin, Louisa County Administrator (Via Email)
Mr. Mark Eversole, VMRC (Via Email)
Mr. Steven A. Vanderploeg, USACE (Via Email)

RECEIVED
 DEC 23 2014
 MARINE RESOURCES
 COMMISSION

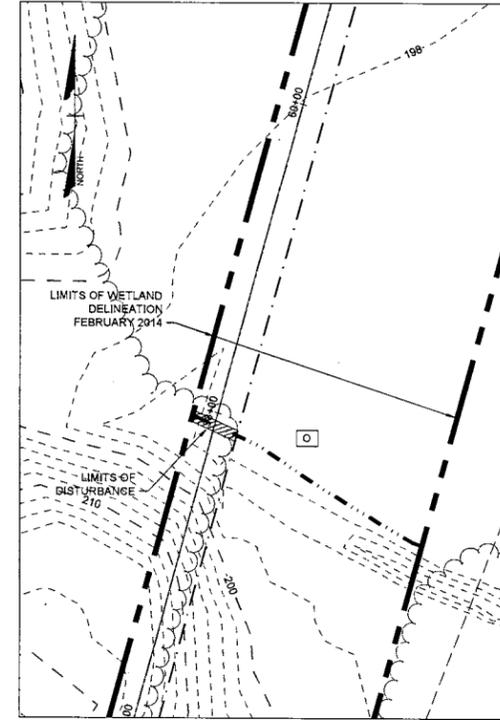
ADDITIONAL INFO
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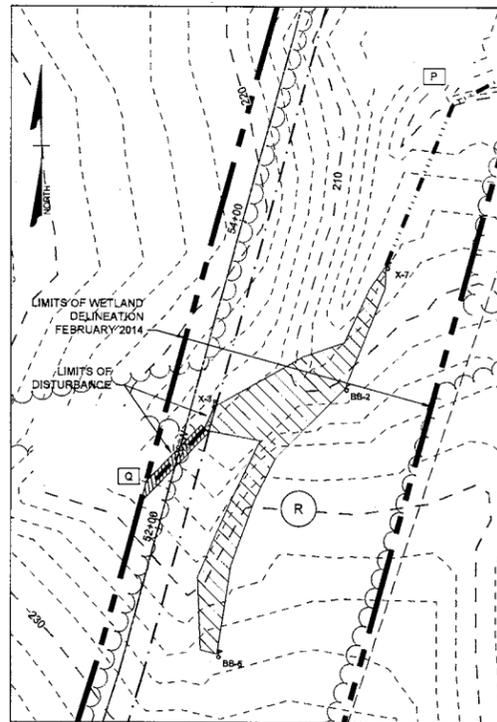
L - STREAM CROSSING IMPACT AREA DETAIL



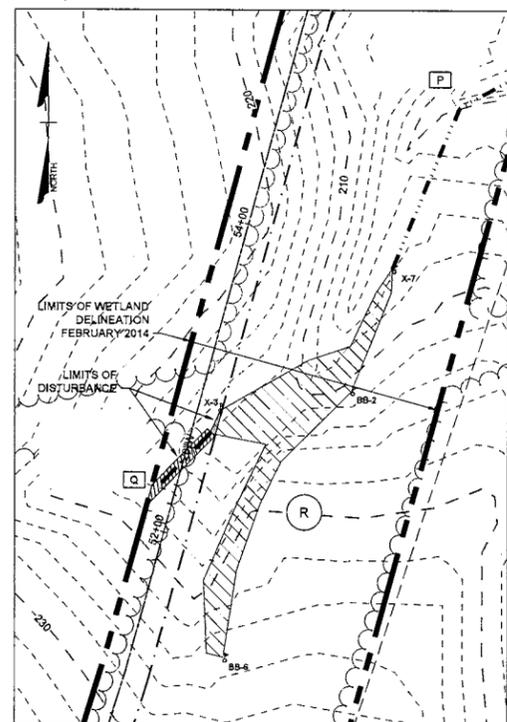
N - RIVANNA RIVER CROSSING IMPACT AREA DETAIL



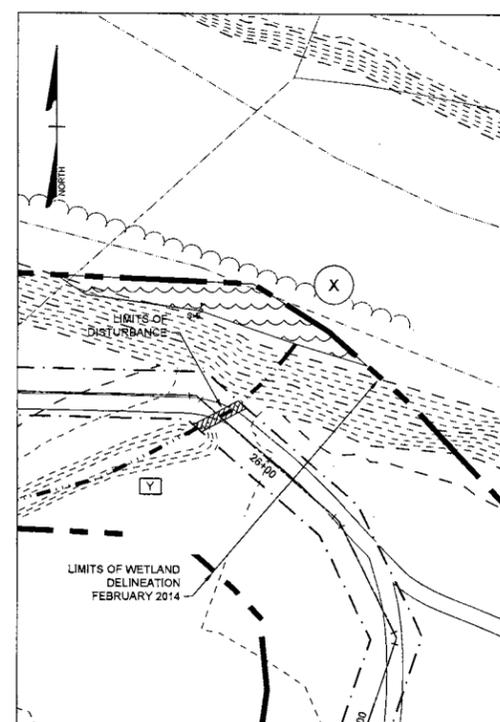
O - STREAM CROSSING IMPACT AREA DETAIL



Q - STREAM CROSSING IMPACT AREA DETAIL



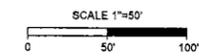
R - WETLAND IMPACT AREA DETAIL



Y - STREAM CROSSING IMPACT AREA DETAIL

- WETLAND LEGEND**
- ⊗xx WETLAND FLAG
 - ⊕xx FIELD DATA STATION
 - ⊗xx STREAM SYSTEM IDENTIFICATION
 - ⊗xx WETLAND SYSTEM IDENTIFICATION

- NOTES:**
- SEE "DRAWING 4: PRELIMINARY WETLAND DELINEATION MAP", PREPARED BY TIMMONS GROUP AND DATED FEBRUARY 6, 2014 AND CONFIRMED BY THE US ARMY CORPS OF ENGINEERS JUNE 11, 2014.



THIS DRAWING PREPARED AT THE CORPORATE OFFICE 1001 BOULDER PARKWAY, SUITE 300, RICHMOND, VA 23225 TEL: 804-260-6500 FAX: 804-350-1016 www.timmons.com	
YOUR VISION ACHIEVED THROUGH OURS.	REVISION DESCRIPTION
DATE	
12/19/2014	
DRAWN BY	J. CARTER
DESIGNED BY	D. SAUNDERS
CHECKED BY	D. SAUNDERS
SCALE	AS SHOWN

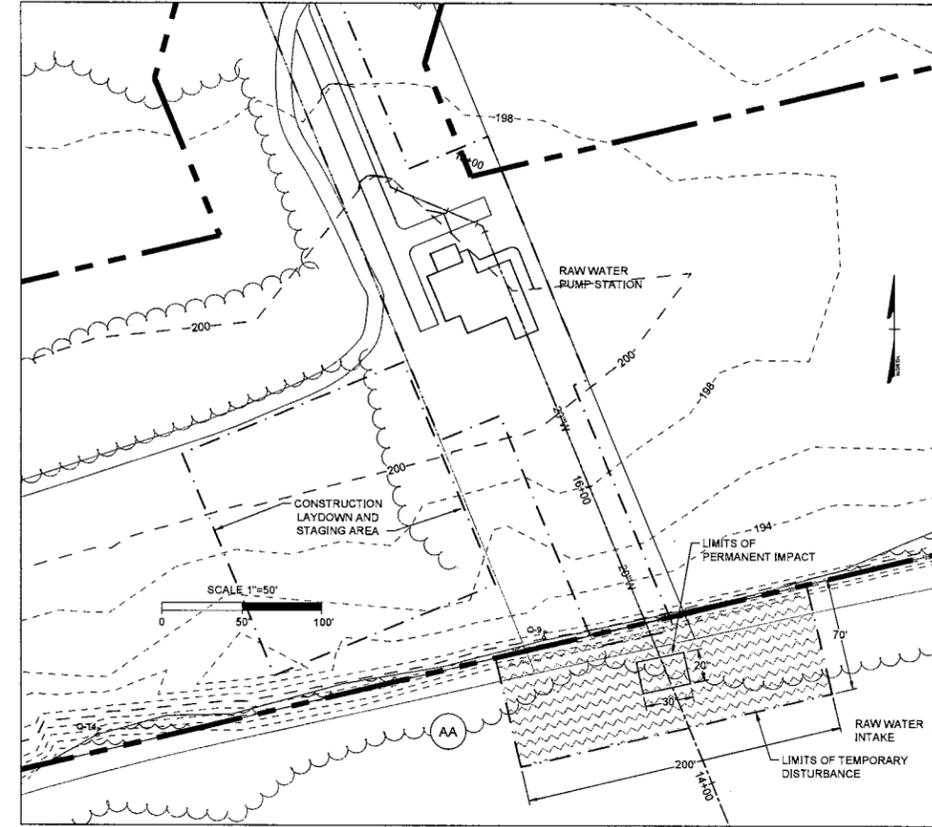
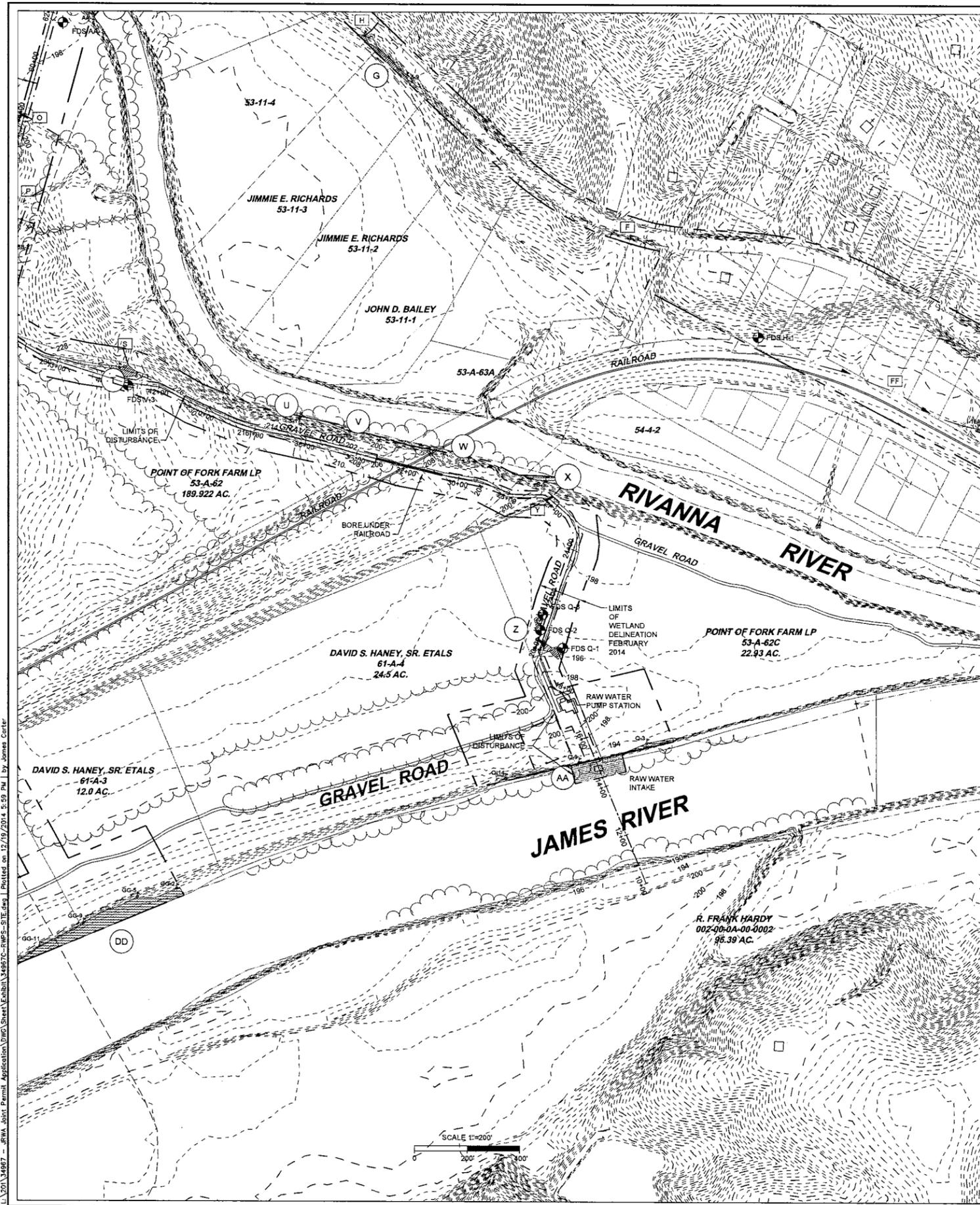
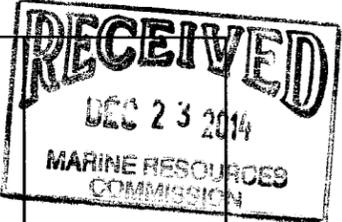
TIMMONS GROUP

JRWA RAW WATER INTAKE, PUMP STATION AND FORCE MAIN
 FLUVAINA COUNTY, VIRGINIA
 ENVIRONMENTAL IMPACT SUMMARY

JOB NO.
34967
 SHEET NO.
2 OF 2

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AA - JAMES RIVER RAW WATER INTAKE IMPACT AREA DETAIL

WETLAND LEGEND

5xx	WETLAND FLAG	ROW	RIVERINE OPEN WATER WETLAND
⊕ XX	FIELD DATA STATION	R3	PERENNIAL STREAM
XX	STREAM SYSTEM IDENTIFICATION	R4	INTERMITTENT STREAM
⊙ XX	WETLAND SYSTEM IDENTIFICATION	s.f.	SQUARE FEET
PFO	PALUSTRINE FORESTED WETLAND	l.f.	LINEAR FEET
PEM	PALUSTRINE EMERGENT WETLAND	Ac.	ACRES

ENVIRONMENTAL IMPACTS*

IMPACT LOCATION*	IMPACT CLASSIFICATION	TEMPORARY IMPACTS			PERMANENT IMPACTS	
		PFO (s.f.)	PEM (s.f.)	STREAM (l.f.)	SURFACE WATER (s.f.)	SURFACE WATER (s.f.)
Z	WETLAND	410				
Y	R3			32		
Q	R3			55		
R	WETLAND		35			
O	R3			31		
L	R3			60		
AA	ROW				14,000	600
TOTAL IMPACTS (l.f. or s.f.)		410 s.f.	35 s.f.	178 l.f.	14,000 s.f.	600 s.f.
TOTAL IMPACTS (Ac.)		0.0094 Ac.	0.0008 Ac.		0.32 Ac.	0.014 Ac.

*LETTERING AND SEQUENCING FROM WETLAND DELINEATION BY TIMMONS GROUP DATED FEBRUARY, 2014
*SEE SHEET 2 OF 2 FOR ADDITIONAL IMPACT LOCATIONS AND DETAILS

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JRWA RAW WATER INTAKE, PUMP STATION AND FORCE MAIN
FLUVANNA COUNTY, VIRGINIA
ENVIRONMENTAL IMPACT SUMMARY

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 BOULDER PARKWAY, SUITE 300, RICHMOND, VA 23225
TEL: 804.200.0500 FAX: 804.260.1515 WWW.TIMMONS.COM

YOUR VISION ACHIEVED THROUGH OURS.	REVISION DESCRIPTION
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1 OF 2

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