

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). <p style="text-align: center;">▶ Complete all entries in accordance with the instructions to the Form 5500.</p>	OMB Nos. 1210-0110 1210-0089 <div style="text-align: center; font-size: 1.5em; font-weight: bold;">2017</div> This Form is Open to Public Inspection
---	---	--

Part I	Annual Report Identification Information
For calendar plan year 2017 or fiscal plan year beginning <u>07/01/2017</u> and ending <u>06/30/2018</u>	
A	This return/report is for: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div> ☐ a multiemployer plan </div> <div> ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) </div> </div> <div style="margin-top: 5px;"> ☒ a single-employer plan <div style="margin-left: 100px;">☐ a DFE (specify) _____</div> </div>
B	This return/report is: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div> ☐ the first return/report ☐ an amended return/report </div> <div> ☐ the final return/report ☐ a short plan year return/report (less than 12 months) </div> </div>
C	If the plan is a collectively-bargained plan, check here. ▶ ☐
D	Check box if filing under: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div> ☒ Form 5558 ☐ special extension (enter description) </div> <div> ☐ automatic extension </div> <div> ☐ the DFVC program </div> </div>

Part II	Basic Plan Information —enter all requested information		
1a	Name of plan <u>PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE</u>	1b	Three-digit plan number (PN) ▶ <u>005</u>
		1c	Effective date of plan <u>07/18/1941</u>
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>BATTELLE MEMORIAL INSTITUTE</u> <u>505 KING AVENUE</u> <u>COLUMBUS, OH 43201</u>	2b	Employer Identification Number (EIN) <u>31-4379427</u>
		2c	Plan Sponsor's telephone number <u>614-424-7104</u>
		2d	Business code (see instructions) <u>541990</u>

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	04/15/2019	VIDA BOWEN
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2017)
v. 170203

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number <div style="background-color: #cccccc; height: 40px; width: 100%;"></div>
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 7765
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d).	
a(1) Total number of active participants at the beginning of the plan year	6a(1) 3838
a(2) Total number of active participants at the end of the plan year	6a(2) 3745
b Retired or separated participants receiving benefits	6b 2490
c Other retired or separated participants entitled to future benefits	6c 1314
d Subtotal. Add lines 6a(2) , 6b , and 6c	6d 7549
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	6e 267
f Total. Add lines 6d and 6e	6f 7816
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	6g
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6h 77
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item).....	7

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

1A 3F 3H

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
---	---

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1)** ☒ **R** (Retirement Plan Information)
- (2)** ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3)** ☒ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- (1)** ☒ **H** (Financial Information)
- (2)** ☐ **I** (Financial Information – Small Plan)
- (3)** ☐ **A** (Insurance Information)
- (4)** ☒ **C** (Service Provider Information)
- (5)** ☒ **D** (DFE/Participating Plan Information)
- (6)** ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2017 Form M-1 annual report. If the plan was not required to file the 2017 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
--	--	---

For calendar plan year 2017 or fiscal plan year beginning <u>07/01/2017</u> and ending <u>06/30/2018</u>	
▶ Round off amounts to nearest dollar.	
▶ Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.	
A Name of plan <u>PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE</u>	B Three-digit plan number (PN) ▶ <u>005</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>BATTELLE MEMORIAL INSTITUTE</u>	D Employer Identification Number (EIN) <u>31-4379427</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>07</u> Day <u>01</u> Year <u>2017</u>	
2 Assets:	
a Market value	2a <u>1517903584</u>
b Actuarial value	2b <u>1465799216</u>
3 Funding target/participant count breakdown	
a For retired participants and beneficiaries receiving payment	(1) Number of participants <u>2692</u> (2) Vested Funding Target <u>662615745</u> (3) Total Funding Target <u>662615745</u>
b For terminated vested participants	<u>1288</u> <u>113311476</u> <u>113311476</u>
c For active participants	<u>3838</u> <u>500817219</u> <u>508914350</u>
d Total	<u>7818</u> <u>1276744440</u> <u>1284841571</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐	
a Funding target disregarding prescribed at-risk assumptions	4a
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b
5 Effective interest rate	5 <u>5.95 %</u>
6 Target normal cost	6 <u>38262969</u>

Statement by Enrolled Actuary
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	
Signature of actuary <u>MATTHEW LITTLE, FSA, EA</u>	Date <u>17-08076</u>
Type or print name of actuary <u>MERCER</u>	Most recent enrollment number <u>248-945-5500</u>
Firm name <u>ONE TOWNE SQUARE, SUITE 1100 SOUTHFIELD, MI 48076-1815</u>	Telephone number (including area code)
Address of the firm	

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)		178699957
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)		
9 Amount remaining (line 7 minus line 8)		178699957
10 Interest on line 9 using prior year's actual return of <u>11.79</u> %		21068725
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		4049789
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.13</u> %		248252
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		
c Total available at beginning of current plan year to add to prefunding balance		4298041
d Portion of (c) to be added to prefunding balance		4298041
12 Other reductions in balances due to elections or deemed elections		
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	204066723

Part III Funding Percentages

14 Funding target attainment percentage	14	98.20%
15 Adjusted funding target attainment percentage	15	114.08%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	101.09%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
06/22/2018	10000000				
09/26/2018	13292347				
Totals ►			18(b)	23292347	18(c)

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.	19a	
b Contributions made to avoid restrictions adjusted to valuation date	19b	
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	21826092

20 Quarterly contributions and liquidity shortfalls:

- a** Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No
- b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No
- c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.16 %	2nd segment: 5.72 %	3rd segment: 6.48 %	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 4
22 Weighted average retirement age.....				22 63
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☒ Yes ☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.....	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.....	☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	38262969	
b Excess assets, if applicable, but not greater than line 31a	31b		
32 Amortization installments:	Outstanding Balance		Installment
a Net shortfall amortization installment.....	23109078		3794781
b Waiver amortization installment			
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34	42057750	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....		20231658	20231658
36 Additional cash requirement (line 34 minus line 35)	36	21826092	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	21826092	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a		
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b		
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years.....	40		

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☒ 2011		
42 Amount of acceleration adjustment	42		
43 Excess installment acceleration amount to be carried over to future plan years	43		

SCHEDULE C (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500.	OMB No. 1210-0110
		2017
		This Form is Open to Public Inspection.

For calendar plan year 2017 or fiscal plan year beginning **07/01/2017** and ending **06/30/2018**

A Name of plan PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE	B Three-digit plan number (PN) ► 005
C Plan sponsor's name as shown on line 2a of Form 5500 BATTELLE MEMORIAL INSTITUTE	D Employer Identification Number (EIN) 31-4379427

Part I	Service Provider Information (see instructions)
---------------	--

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

- a** Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).. ☒ Yes ☐ No
- b** If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation ALTRINSIC GLOBAL ADVISORS, LLC
--

30-0016268

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation HARBOURVEST PARTNERS LP

74-3130888

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation HARBOURVEST VIII - BUYOUT ASSOC LP
--

51-0578242

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation HARBOURVEST PARTNERS VIII - MEZZ AS

34-2063496

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

HARBOURVEST PARTNERS VIII - VENTURE

34-2063513

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

HIPEP V - PARTNERSHIP ASSOCS LP

55-0897492

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

CARVAL INVESTORS, LLC

31-6023138

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

GOLDMAN SACHS ASSET MANAGEMENT LP

13-3575636

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

GOLDMAN SACHS & CO. LLC

13-3501777

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

METLIFE INVESTMENT ADVISORS, LLC

13-4075851

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

CAMBRIDGE ASSOCIATES, LLC

04-3515240

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

WESTERN ASSET MANAGEMENT COMPANY

385 EAST COLORADO BLVD.
PASADENA, CA 91101

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

BLACK CREEK INVESTMENT MANAGEMENT

1200-123 FRONT ST W.
TORONTO, ONTARIO M5J 2M2 CA

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28	NONE	919191	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

MARATHON-LONDON INTERNATIONAL FUND

22-3321401

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
52 71	NONE	602665	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

MERCER

13-2834414

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
11 17	NONE	546634	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

LINDSELL TRAIN LIMITED

98-1104976

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51 52	NONE	520959	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

BAILLIE GIFFORD OVERSEAS, LTD.

22-3438530

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51 52	NONE	494144	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

WILLIS TOWERS WATSON

53-0181291

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27	NONE	447629	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

NWQ INVESTMENT MANAGEMENT COMPANY

47-0875103

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
52 68	NONE	339675	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

NORTHERN TRUST

36-2723087

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
21	NONE	281888	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

PZENA INVESTMENT MANAGEMENT

13-3860154

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51 52	NONE	258434	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

STONE HARBOR INVESTMENT PARTNERS L

20-3888588

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51 52	NONE	250525	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

BATTELLE MEMORIAL INSTITUTE

31-4379427

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
	PLAN SPONSOR	247558	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

RIVER ROAD ASSET MGMT

43-2076925

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
51	NONE	214691	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

POLARIS CAPITAL MANAGEMENT LLC

74-3243565

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51	NONE	202647	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

RIVER AND MERCANTILE GROUP

30 COLEMAN STREET
LONDON EC2R 5AL GB

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51	NONE	188323	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

STATE STREET GLOBAL ADVISORS

81-4017137

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
51 28	NONE	133278	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☐ No ☒

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

JP MORGAN INVESTMENT MANAGEMENT

13-3200244

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
	NONE	128734	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

JP MORGAN CHASE BANK

13-4994650

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51 24 27	NONE	128734	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

HUNTINGTON NATIONAL BANK

31-0966785

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
18	NONE	74752	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

CROWE LLP

35-0921680

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
10	NONE	70500	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

PARAMETRIC PORTFOLIO ASSOCIATES

20-0292745

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 51	NONE	60692	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

GRAYDON HEAD & RITCHEY

31-0565234

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
	NONE	47718	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

TOWNSEND HOLDINGS LLC

45-3073569

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
51	NONE	36725	Yes ☒ No ☐	Yes ☐ No ☒	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

MEADEN & MOORE, LTD.

34-1818258

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
10	NONE	27164	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

PRUDENTIAL INSURANCE CO OF AMERICA

22-1211670

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
51 28	NONE	24809	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☐ No ☒

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

JOHN CHRISTIE

31-4379427

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
17	EMPLOYEE OF PLAN SPONSOR	11438	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

LEONARD ESSEX

31-4379427

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
17	EMPLOYEE OF PLAN SPONSOR	11438	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

KENT RINKER

31-4379427

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
17	EMPLOYEE OF PLAN SPONSOR	11438	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

S. YOUNG

31-4379427

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
17	EMPLOYEE OF PLAN SPONSOR	11438	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

A. CAXIDE

31-4379427

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
17	EMPLOYEE OF PLAN SPONSOR	11438	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
TOWNSEND HOLDINGS LLC	52	57250
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
TOWNSEND REAL ESTATE ALPHA I 27-3729115	FEES RECEIVED	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
TOWNSEND HOLDINGS LLC	52	97980
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
TOWNSEND REAL ESTATE ALPHAI 46-5729269	FEES RECEIVED	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)

(complete as many entries as needed)

a Name:	CHRISTOPHER KLUDY, FSA (MERCER)	b EIN:	13-2834414
c Position:	ACTUARY		
d Address:	325 JOHN H. MCCONNELL BLVD. STE 350 COLUMBUS, OH 43215-7644	e Telephone:	614-227-5500

Explanation: CHRISTOPHER KLUDY IS NO LONGER EMPLOYED AT MERCER.

a Name:		b EIN:	
c Position:			
d Address:		e Telephone:	

Explanation:

a Name:		b EIN:	
c Position:			
d Address:		e Telephone:	

Explanation:

a Name:		b EIN:	
c Position:			
d Address:		e Telephone:	

Explanation:

a Name:		b EIN:	
c Position:			
d Address:		e Telephone:	

Explanation:

SCHEDULE D (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small>	DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection.
---	--	--

For calendar plan year 2017 or fiscal plan year beginning 07/01/2017 and ending 06/30/2018

A Name of plan <u>PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE</u>	B Three-digit plan number (PN) ► <u>005</u>	
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 <u>BATTELLE MEMORIAL INSTITUTE</u>	D Employer Identification Number (EIN) <u>31-4379427</u>	

Part I	Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)
---------------	--

a Name of MTIA, CCT, PSA, or 103-12 IE: BATTELLE PENSION TRUST

b Name of sponsor of entity listed in (a): BATTELLE MEMORIAL INSTITUTE

c EIN-PN <u>31-4379427-004</u>	d Entity code <u>M</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>1609534167</u>
---------------------------------------	-------------------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
-----------------	----------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
-----------------	----------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
-----------------	----------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
-----------------	----------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
-----------------	----------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
-----------------	----------------------	---

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

a Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	<small>OMB No. 1210-0110</small> 2017 This Form is Open to Public Inspection
--	--	--

For calendar plan year 2017 or fiscal plan year beginning <u>07/01/2017</u> and ending <u>06/30/2018</u>		
A Name of plan <u>PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE</u>	B Three-digit plan number (PN) ►	<u>005</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>BATTELLE MEMORIAL INSTITUTE</u>	D Employer Identification Number (EIN) <u>31-4379427</u>	

Part I	Asset and Liability Statement
---------------	--------------------------------------

1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	15900397	13292347
(2) Participant contributions	1b(2)		
(3) Other.....	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities.....	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other.....	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)		
(9) Value of interest in common/collective trusts.....	1c(9)		
(10) Value of interest in pooled separate accounts.....	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)	1502232187	1609534167
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)		
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)		
(15) Other	1c(15)		

1d Employer-related investments:		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)		
(2) Employer real property	1d(2)		
e Buildings and other property used in plan operation	1e		
f Total assets (add all amounts in lines 1a through 1e)	1f	1518132584	1622826514

Liabilities

g Benefit claims payable	1g		
h Operating payables	1h		
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through 1j)	1k		

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	1518132584	1622826514
---	-----------	------------	------------

Part II Income and Expense Statement

- 2** Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income

		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	23292347	
(B) Participants	2a(1)(B)		
(C) Others (including rollovers)	2a(1)(C)		
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		23292347
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
(B) U.S. Government securities	2b(1)(B)		
(C) Corporate debt instruments	2b(1)(C)		
(D) Loans (other than to participants)	2b(1)(D)		
(E) Participant loans	2b(1)(E)		
(F) Other	2b(1)(F)		
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		
(2) Dividends: (A) Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)		
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		
(3) Rents	2b(3)		
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)		
(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)		
(B) Other	2b(5)(B)		
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		157831190
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds).....	2b(10)		
c Other income	2c		
d Total income. Add all income amounts in column (b) and enter total.....	2d		181123537

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers.....	2e(1)	65798098	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines 2e(1) through (3).....	2e(4)		65798098
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions).....	2g		
h Interest expense.....	2h		
i Administrative expenses: (1) Professional fees	2i(1)	5533934	
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)	4715677	
(4) Other	2i(4)	381898	
(5) Total administrative expenses. Add lines 2i(1) through (4).....	2i(5)		10631509
j Total expenses. Add all expense amounts in column (b) and enter total.....	2j		76429607

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		104693930
l Transfers of assets:			
(1) To this plan.....	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unqualified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? ☐ Yes ☒ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: CROWE LLP

(2) EIN: 35-0921680

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.).....

b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)

	Yes	No	Amount
4a		X	
4b		X	

		Yes	No	Amount
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e Was this plan covered by a fidelity bond?	4e	X		10000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l Has the plan failed to provide any benefit when due under the plan?	4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m			
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year?..... ☐ Yes ☒ No
 If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ☒ Yes ☐ No ☐ Not determined
 If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4120673. (See instructions.)

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection.
---	---	--

For calendar plan year 2017 or fiscal plan year beginning 07/01/2017 and ending 06/30/2018

A Name of plan <u>PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE</u>	B Three-digit plan number (PN) ▶ <u>005</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>BATTELLE MEMORIAL INSTITUTE</u>	D Employer Identification Number (EIN) <u>31-4379427</u>

Part I	Distributions
---------------	----------------------

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions	1	
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): <u>31-6243960</u>		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year	3	<u>42</u>

Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)
----------------	---

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)?	☐ Yes	☒ No	☐ N/A
If the plan is a defined benefit plan, go to line 8.			
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.			
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)	6a		
b Enter the amount contributed by the employer to the plan for this plan year	6b		
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)	6c		
If you completed line 6c, skip lines 8 and 9.			
7 Will the minimum funding amount reported on line 6c be met by the funding deadline?	☐ Yes	☐ No	☐ N/A
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change?	☐ Yes	☐ No	☒ N/A

Part III	Amendments
-----------------	-------------------

9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box.	☒ Increase	☐ Decrease	☐ Both	☐ No
---	--	-----------------------------------	-------------------------------	-----------------------------

Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.
----------------	---

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?	☐ Yes	☐ No
11 a Does the ESOP hold any preferred stock?	☐ Yes	☐ No
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)	☐ Yes	☐ No
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?	☐ Yes	☐ No

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Schedule R (Form 5500) 2017
v. 170203

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

- 14** Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	14a	
b The plan year immediately preceding the current plan year	14b	
c The second preceding plan year	14c	

- 15** Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	

- 16** Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	16a	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	

- 17** If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

- 18** If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

- 19** If the total number of participants is 1,000 or more, complete lines (a) through (c)

- a** Enter the percentage of plan assets held as:

Stock: 57.6% Investment-Grade Debt: 24.9% High-Yield Debt: 5.5% Real Estate: 4.9% Other: 7.1%

- b** Provide the average duration of the combined investment-grade and high-yield debt:

☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☒ 21 years or more

- c** What duration measure was used to calculate line 19(b)?

☐ Effective duration ☐ Macaulay duration ☒ Modified duration ☐ Other (specify):

Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute

Employer Identification Number: 31-4379427
Plan Number: 005

Financial Statements as of and for the
Years Ended June 30, 2018 and 2017, and
Independent Auditor's Report

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE**

TABLE OF CONTENTS

	Page
INDEPENDENT AUDITOR’S REPORT	1
FINANCIAL STATEMENTS:	
Statements of Net Assets Available for Benefits as of June 30, 2018 and 2017	3
Statements of Changes in Net Assets Available for Benefits for the Years Ended June 30, 2018 and 2017	4
Notes to Financial Statements as of and for the Years Ended June 30, 2018 and 2017	5 - 21
SUPPLEMENTAL SCHEDULE:	
Schedule of Assets (Held at End of Year)	22

INDEPENDENT AUDITOR'S REPORT

To the Plan Administrator and
Battelle Pension Management and Investment Council
Columbus, Ohio

Report on the Financial Statements

We have audited the accompanying financial statements of the Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute (the "Plan"), which comprise the statements of net assets available for benefits as of June 30, 2018 and 2017, and the related statements of changes in net assets available for benefits for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Plan's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of the Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute as of June 30, 2018 and 2017, and the changes in its financial status for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The information included in the 2018 supplemental Schedule H, Part IV, Line 4i Schedule of Assets (Held at End of Year) is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. Such information is the responsibility of the Plan's management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Crowe LLP
Crowe LLP

Oak Brook, Illinois
April 15, 2019

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute

	(In Thousands)	
	June 30	
	2018	2017
ASSETS		
Receivable - Employer contributions	\$ 13,292	\$ 15,900
Investments (at Fair Value):		
Plan Interest in Master Trust	<u>1,609,535</u>	<u>1,502,233</u>
Net Assets Available for Benefits	<u>\$ 1,622,827</u>	<u>\$ 1,518,133</u>

See accompanying notes

See accompanying notes.

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute

	(In Thousands)	
	Year Ended June 30	
	<u>2018</u>	<u>2017</u>
Additions to Net Assets Attributed to:		
Contributions:		
Employer	\$ 23,292	\$ 27,150
Investment Income:		
Plan Interest in Master Trust Income	<u>157,831</u>	<u>161,361</u>
Total Additions	181,123	188,511
Deductions from Net Assets Attributed to:		
Benefits paid to participants or beneficiaries	65,798	61,258
Administrative expenses	<u>10,631</u>	<u>10,150</u>
Total Deductions	<u>76,429</u>	<u>71,408</u>
Net Increase	104,694	117,103
Net Assets Available for Benefits:		
Beginning of Year	<u>1,518,133</u>	<u>1,401,030</u>
End of Year	<u>\$ 1,622,827</u>	<u>\$ 1,518,133</u>

See accompanying notes

See accompanying notes.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

1. ORGANIZATION

The accompanying financial statements present the net assets of the Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute (“Plan”) and changes therein. The net assets of the Plan are commingled with the assets of the Employees Pension Plan of Battelle Memorial Institute and the assets of The 2017 Employees’ Pension Plan of Battelle Memorial Institute within the Battelle Pension Trust (“Master Trust”).

The following brief description of the Plan is provided for general information purposes only. Participants should refer to the Plan document for more complete information.

General. The Plan is a defined benefit pension plan covering all U.S.-based salaried employees and eligible hourly employees of the Pacific Northwest Laboratories, Battelle Memorial Institute (“Battelle” or “Plan Sponsor”) and those group members, as defined by the Plan, who have adopted the Plan, except employees who are covered by collective bargaining agreements or by another pension plan funded by the employer. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”).

Plan Amendments. Effective July 1, 2016, an amendment was adopted which provided that a vested retiree’s surviving spouse is eligible for a 100% survivor annuity regardless of whether the retiree was eligible to receive an early retirement benefit by having attained his or her early retirement date at the time of death.

Effective July 1, 2016, an amendment was adopted, which provides for the participation of employees represented by the Hanford Atomic Metal Trades Council (“HAMTC”) in the Plan as provided under the collective bargaining agreement between Battelle and HAMTC.

Pension Benefits. Participants with five or more years of vested service, as defined by the Plan, are entitled to annual pension benefits beginning at the normal retirement age of 65 based upon certain formulas using years of credited service up to a maximum of 40 years and the highest 60 months of compensation. The Plan permits early retirement at ages 55 to 64. Participants may elect to receive their vested benefit as a joint and survivor annuity payable monthly from the date of retirement. Participants may also elect to receive their vested benefit as a lump sum under certain conditions. The normal form of benefit is a single-life annuity payable monthly. If participants terminate before rendering five years of vesting service, they forfeit the right to receive their accumulated plan benefits. A participant is fully vested upon attainment of age 65 while in active service.

Death and Disability Benefits. If a vested participant dies before benefit payments begin, a death benefit equal to the participant’s accumulated benefits is paid to the participant’s spousal beneficiary based on certain payment options as defined by the Plan. Alternatively, the Plan provides spousal and nonspousal beneficiaries the option to elect a death benefit of 120 monthly payments commencing immediately, where each monthly payment is equal to the actuarial equivalent of the monthly payment the participant would have received at normal retirement age, or the lump-sum present value of such 120 monthly payments.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

Active participants who become totally disabled, as defined by the Plan, are immediately fully vested in their pension benefit under the Plan and may elect to begin receiving an annual disability retirement benefit. Alternatively, active salaried participants who become totally disabled, as defined by the Plan, may elect to continue to accrue benefits with their salary rate remaining the same as at the time they became disabled until retirement, at which time disabled participants commence receipt of their pension benefits, which cannot occur while the participant is receiving benefits from a disability program sponsored by Battelle.

2. SUMMARY OF ACCOUNTING POLICIES

Basis of Accounting. The financial statements of the Plan have been prepared under the accrual basis of accounting.

Recent Accounting Pronouncements:

In May 2015, the FASB Issued Accounting Standards Update No. 2015-07(ASU 2015-07), *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*. ASU 2015-07 removes the requirement to include investments in the fair value hierarchy for which fair value is measured using the net asset value per share as practical expedient under ASC 820. ASU 2015-07 is effective for fiscal years beginning after December 15, 2016 with early adoption permitted. The Plan has adopted ASU 2015-07 and retrospectively applied to the Plan year ended June 30, 2017. There were no changes to the Statement of Net Assets Available for Benefits or the Statement of Changes in Net Assets Available for Benefits. Certain investment disclosures have been updated to reflect the adoption of ASU 2015-07.

Use of Estimates. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities; disclosure of contingent assets, liabilities, and pension obligations at the date of the financial statements; and the reported amounts of changes in net assets and pension obligations during the reporting period. Actual results could differ from those estimates.

Risks and Uncertainties. The Master Trust invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market, liquidity, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statements of net assets available for benefits.

Plan contributions are made, and the actuarial present value of accumulated plan benefits is reported, based on certain assumptions pertaining to interest rates, salary increases, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

Investment Valuation and Income Recognition. Investments are stated at fair value. Fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for a description of valuation methods. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

The valuation of investments is prepared by the trustee. The trustee utilizes its external pricing service to estimate the fair value of certain investments held in the Plan. The trustee uses multiple pricing vendors for the assets held in the Master Trust. In some cases, such as private equity funds, the valuation is provided to the trustee by the applicable fund manager of the investment. The Plan's investment managers review and validate the prices utilized by the trustee to determine fair value. The Plan Sponsor receives audit reports of the trustee's operating controls and valuation processes. Management has established processes and procedures for establishment and valuation of alternative investments.

Payment of Benefits. Benefit payments to participants or beneficiaries are recorded upon distribution.

Administrative Expenses. Investment management and custodial fees; accounting fees; audit fees; and certain administrative, consulting, and legal fees are paid by the Plan and are expensed as incurred. Certain other administrative expenses not paid by the Plan are paid by the employer.

Subsequent Events. Plan management has performed an evaluation of subsequent events through April 15, 2019, which is the date the financial statements were available for issuance.

3. THE MASTER TRUST

At June 30, 2018 and 2017, the Plan had an approximate 63.5% and 62.6% interest, respectively, in the net assets available for benefits of the Master Trust. Net assets, interest, dividends, realized gains (losses), unrealized gains (losses), and certain administrative expenses relating to the Master Trust are allocated to the individual plans via unitized accounting with the trustee. This unitization is based on the weighted market value of the Plan's ownership in the Master Trust assets at the close of the previous month.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

The net assets of the Master Trust as of June 30, 2018 and 2017, are as follows (in thousands):

	<u>2018</u>	<u>2017</u>
Investments:		
U.S. Government and U.S. Government Agency Bonds	\$ 627,557	\$ 508,272
Common stocks	917,347	981,555
Private equity funds	310,223	236,902
Commingled funds	494,836	459,990
Asset-backed securities	-	21
Mortgage-backed securities	-	58
Non-government-backed CMOs	-	79
Real estate	84,727	90,853
Cash and cash equivalents	97,936	120,035
Total Investments	<u>2,532,626</u>	<u>2,397,765</u>
Dividends and Interest Receivable	768	1,785
Other - Including receivables/(payables) from pending transactions	<u>(385)</u>	<u>(1,200)</u>
Net Assets	<u>\$ 2,533,009</u>	<u>\$ 2,398,350</u>

Investment income for the Master Trust for the years ended June 30, 2018 and 2017, is as follows (in thousands):

	<u>2018</u>	<u>2017</u>
Net appreciation in fair value of investments	\$ 215,746	\$ 224,249
Interest	1,167	1,158
Dividends	30,921	30,648
Total investment income	<u>\$ 247,834</u>	<u>\$ 256,055</u>

4. FAIR VALUE MEASUREMENTS

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3).

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The three levels of the fair value hierarchy under Topic 820 are described as follows:

Level 1: Inputs to the valuation methodology are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Plan can access at the measurement date.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, such as:

- * Quoted prices for similar assets or liabilities in active markets
- * Quoted prices for identical or similar assets or liabilities in inactive markets
- * Inputs other than quoted prices that are observable for the asset or liability
- * Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Inputs that are unobservable inputs for the asset or liability.

The Plan's investment in the Master Trust is presented at fair value, which has been determined based on the fair value of the underlying investments of the Master Trust. Consideration was given to how third-party pricing was performed.

The following is a description of the valuation methodologies used by the Plan to calculate the fair value of Master Trust investments. There have been no changes in the methodologies used at June 30, 2018 and 2017:

Cash includes trust deposit accounts as well as local and foreign currencies for which fair value measurements are all based on quoted prices for similar assets or liabilities. Cash equivalents includes a money market account, for which fair value is estimated to approximate the cost basis of the deposit account balance, and a short-term investment fund, which is valued at net asset value per share as determined by the issuer.

Common stocks are valued at the closing price reported in the active market in which the individual security is traded.

U.S. Government and U.S. Government Agency (Government) bonds are valued based on yields currently available on comparable securities of issuers with similar credit ratings. When quoted prices are not available, the government security is valued under a discounted cash flow approach that maximizes observable inputs, such as current yields of similar instruments.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

Asset-backed securities, mortgage-backed securities, and nongovernment-backed collateralized mortgage obligations (CMOs) are valued based on yields currently available on comparable securities of issuers with similar credit ratings. When quoted prices are not available for identical or similar bonds, the bond is valued under a discounted cash flow approach that maximizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks.

Private real estate investments are valued at estimated fair value based on net asset value as reported by the fund managers. These funds seek growth and income through investment in commercial, residential, and industrial real estate. Funds are subject to various redemption restrictions and advance notice requirements. In addition, circumstances may exist in which the otherwise redeemable investment may be subject to limitations, including availability of cash arising from net investment income and the sale of investments in the ordinary course of business. Certain private real estate investments are stated at fair value using net asset value (NAV) as a practical expedient.

Commingled funds consist of collective trust investments, a common trust, and a 103-12 investment entity which are valued at estimated fair value based on net asset value as reported by the fund manager. The collective trust investments invest primarily in readily marketable international securities with the objective of long-term growth. The common trust seeks an investment return that approximates, as closely as possible, the performance of the RAFI Global Index over the long term. The commingled funds are stated at fair value which is measured using NAV as a practical expedient.

Certain private equity funds are measured at fair value using NAV as a practical expedient, as reported by the fund manager. The NAV is based on the cumulative capital account balances reported by the general partners. In some cases, this might be based on limited partnerships' audited financial statements.

The allocation of the gains, losses, and expenses to the partners are based on the ownership percentage as described in the partnership agreements. These funds seek growth and income through investments in various private market investments including, but not limited to, buyout, mezzanine debt, and venture capital. For private equity funds in the hierarchy as of June 30, 2018 and 2017, other than those disclosed in the NAV table below, substantially all redemptions are permanently restricted until the termination of the partnership or by written consent of the general partner. The estimated time period for liquidation of these private equity funds varies from 1 to 10 years, but is subject to variability.

For private equity funds in the NAV table below which have no specific information detailed for Redemption Frequency or Redemption Notice Period, these funds generally have a stated life in the investment agreement, providing no short-term redemption liquidity. Distributions are received through the liquidation of the underlying assets of the funds. The intention is to hold these investments through liquidation. These portfolios will be fully liquidated prior to the termination of the stated life.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

The following tables set forth by level, within the fair value hierarchy, the Master Trust's assets at fair value as of June 30, 2018 and 2017 (in thousands). Classification within the fair value hierarchy table is based on the lowest level of any input that is significant to the fair value measurement:

	Assets at Fair Value as of June 30, 2018			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 59,762	\$ 38,174	\$ -	\$ 97,936
Government bonds	-	627,557	-	627,557
Common stocks	917,347	-	-	917,347
Private equity funds	-	-	5,167	5,167
Real estate	-	-	1,316	1,316
Total assets in the fair value hierarchy	<u>\$ 977,109</u>	<u>\$ 665,731</u>	<u>\$ 6,483</u>	<u>\$ 1,649,323</u>
Investments measured at net asset value*				<u>\$ 883,303</u>
Investments at fair value	<u>\$ 977,109</u>	<u>\$ 665,731</u>	<u>\$ 6,483</u>	<u>\$ 2,532,626</u>

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)				
	Assets at Fair Value as of June 30, 2017			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 13,363	\$ 106,672	\$ -	\$ 120,035
Government bonds	-	508,272	-	508,272
Mortgage-backed securities	-	58	-	58
Common stock	981,555	-	-	981,555
Private equity funds	-	-	5,994	5,994
Asset-backed securities	-	21	-	21
Non-government-backed CMOs	-	79	-	79
Real estate	-	-	1,927	1,927
Total assets in the fair value hierarchy	<u>\$ 994,918</u>	<u>\$ 615,102</u>	<u>\$ 7,921</u>	<u>\$ 1,617,941</u>
Investments measured at net asset value*				<u>779,824</u>
Investments at fair value	<u>\$ 994,918</u>	<u>\$ 615,102</u>	<u>\$ 7,921</u>	<u>\$ 2,397,765</u>

**Investments measured at fair value using net asset value per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The value amounts presented in this table for such investments are intended to permit reconciliation of the fair value hierarchy to the total investments of the Master Trust line item presented in Note 3.*

The Plan's policy is to recognize significant transfers between levels at the actual date of the event or change in circumstances that caused the transfer. For the years ended June 30, 2018 and 2017, there were no significant transfers in between Levels 1 and 2 and no transfers in or out of Level 3.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

The following table sets forth a summary of changes in the fair value of the Master Trust's Level 3 assets for the years ended June 30, 2018 and 2017 (in thousands):

	<u>2018</u>		<u>2017</u>	
	<u>Private Equity</u>	<u>Real Estate</u>	<u>Private Equity</u>	<u>Real Estate</u>
Balance - Beginning of Year	\$ 5,994	\$ 1,927	\$ 11,854	\$ 9,723
Realized gains/(losses)	(970)	1,124	1,739	(6,841)
Unrealized gains/(losses) relating to assets still held at the reporting date	970	(2,502)	(2,187)	5,629
Purchases	1,106	2,052	1,557	1,543
Sales	<u>(1,933)</u>	<u>(1,285)</u>	<u>(6,969)</u>	<u>(8,127)</u>
Balance - End of Year	<u>\$ 5,167</u>	<u>\$ 1,316</u>	<u>\$ 5,994</u>	<u>\$ 1,927</u>

Investments Measured Using the Net Asset Value per Share Practical Expedient

The following table summarizes investments for which fair value is measured using the net asset value per share as a practical expedient as of June 30, 2018 and 2017 (in thousands):

<u>June 30, 2018</u>	<u>Fair Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (if Currently Eligible)</u>	<u>Redemption Notice Period</u>
Private Equity Partners 2002 - Manager	2,467	114	-	-
Private Equity Partners 2005 - Manager	3,586	261	-	-
Private Equity Partners 2005 - Direct	1,125	273	-	-
Harbourvest Int'l V - Partnership Fund	2,413	444	-	-
Harbourvest Partners VIII - Buyout	6,339	756	-	-
Harbourvest Partners VIII - Venture	5,142	168	-	-
Adams Street Partners 2007 Non-U.S.	1,364	121	-	-
Adams Street Partners 2007 U.S.	2,120	179	-	-

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

			Redemption Frequency (if	Redemption
		Unfunded	Currently	Notice
<u>June 30, 2018</u>	<u>Fair Value</u>	<u>Commitments</u>	<u>Eligible)</u>	<u>Period</u>
Adams Street Partners 2008 Non-U.S.	6,117	694	-	-
Adams Street Partners 2008 Direct	1,681	64	-	-
Adams Street Partners 2008 U.S.	6,769	640	-	-
GS Distressed Managers IV LP	1,971	2,937	-	-
GS Private Equity Partners X Direct	4,035	974	-	-
GS Private Equity Partners X Manager	16,914	1,802	-	-
GS Vintage Fund V	1,967	2,883	-	-
Adams Street 2009 Non-U.S. Developed	4,368	663	-	-
Adams Street 2009 Non-U.S. Emerging	2,164	163	-	-
Adams Street Partners 2009 U.S.	8,346	820	-	-
Adams Street Partners 2009 Direct	1,524	63	-	-
Harbourvest Int'l VI - Partnership Fund	6,828	588	-	-
CVI Credit Value Fund A	4,364	750	-	-
JPM Global Maritime Investment	9,914	410	-	-
CVI Credit Value Fund A III	27,480	2,500	-	-
Bertram Growth Capital (BMI)	1,295	2,468	-	-
Bertram Growth Capital (PNNL)	2,173	4,140	-	-
Brookfield Premier Real Estate Partners	8,691	0	Daily	90 days
CF MetLife Core Property Fund LP A	5,806	0	Quarterly	60 days
CF MetLife Core Property Fund LP B	6,547	0	Quarterly	60 days
CF State Street RAFI Global Index (BMI)	41,036	0	Daily	n/a
CF State Street RAFI Global Index (PNNL)	68,907	0	Daily	n/a
Brigade Credit Fund II	70,529	0	Quarterly	60 days
CF JPM Strategic Ppty Fund	10,867	0	Quarterly	45 days
CF Marathon London Int'l Fund	130,498	0	Monthly	n/a
Greystar Growth and Income Fund	4,605	0	Quarterly	90 days
Other investments	<u>403,351</u>	**	**	**
Total investments measured at net asset value	883,303			

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

<u>June 30, 2017</u>	<u>Fair Value</u>	<u>Unfunded Commitments</u>	Redemption Frequency (if Currently <u>Eligible</u>)	Redemption Notice <u>Period</u>
Private Equity Partners 2002 - Manager	3,353	114	-	-
Private Equity Partners 2005 - Manager	5,848	279	-	-
Private Equity Partners 2005 - Directed	1,073	259	-	-
Harbourvest Int'l V - Partnership Fund	3,912	542	-	-
Harbourvest Partners VIII - Buyout	8,106	1,008	-	-
Harbourvest Partners VIII - Venture	5,830	168	-	-
Adams Street Partners 2007 Non-US	1,498	121	-	-
Adams Street Partners 2007 U.S.	2,532	208	-	-
Adams Street Partners 2008 Non-U.S.	5,966	694	-	-
Adams Street Partners 2008 Direct	1,553	73	-	-
Adams Street Partners 2008 U.S.	7,301	798	-	-
GS Distressed Managers IV LP	3,095	2,901	-	-
GS Private Equity Partners X Direct	6,234	1,126	-	-
GS Private Equity Partners X Manager	20,297	2,310	-	-
GS Vintage Fund V	2,355	2,845	-	-
Adams Street 2009 Non-U.S. Developed	4,033	1,086	-	-
Adams Street 2009 Non-U.S. Emerging	1,971	273	-	-
Adams Street Partners 2009 U.S.	8,485	1,350	-	-
Adams Street Partners 2009 Direct	1,451	74	-	-
Harbourvest Int'l VI - Partnership Fund	6,947	826	-	-
CVI Credit Value Fund A	6,284	750	-	-
JPM Global Maritime Investment	8,688	535	-	-
CVI Credit Value Fund A III	19,195	8,750	-	-
Bertram Growth Capital (BMI)	529	3,171	-	-
Bertram Growth Capital (PNNL)	887	5,320	-	-
Brookfield Premier Real Estate Partners	7,379	n/a	Daily	90 days

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

<u>June 30, 2017</u>	<u>Fair Value</u>	<u>Unfunded Commitments</u>	Redemption Frequency (if Currently <u>Eligible</u>)	Redemption Notice <u>Period</u>
CF MetLife Core Property Fund LP A	5,275	n/a	Quarterly	60 days
CF MetLife Core Property Fund LP B	5,949	n/a	Quarterly	60 days
CF State Street RAFI Global Index (BMI)	37,300	n/a	Daily	n/a
CF State Street RAFI Global Index (PNNL)	62,700	n/a	Daily	n/a
CF JPM Strategic Ppty Fund	10,488	n/a	Quarterly	45 days
CF Marathon London Int'l Fund	122,159	n/a	Monthly	n/a
Other investments	<u>391,151</u>	**	**	**
Total investments measured at net asset value	779,824			

****** The other investments have no unfunded commitments and redemption frequencies and notice periods vary.

5. ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

Accumulated plan benefits are those future periodic payments that are attributable under the Plan's provisions to the service participants have rendered as of the valuation date. Accumulated plan benefits include benefits expected to be paid to (a) retired or terminated participants or their beneficiaries, (b) beneficiaries of participants who have died, and (c) present participants or their beneficiaries.

The actuarial present value of accumulated plan benefits is determined by an independent actuary, and is that amount that results from applying actuarial assumptions to adjust the accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements, such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

The actuarial present value of accumulated plan benefits as of June 30, 2018 and 2017 is as follows (in thousands):

	<u>2018</u>	<u>2017</u>
Vested benefits:		
Participants currently receiving payments	\$ 667,297	\$ 622,502
Other participants	<u>547,978</u>	<u>549,951</u>
Total vested benefits	1,215,275	1,172,453
Nonvested benefits	<u>3,599</u>	<u>3,886</u>
Total Actuarial Present Value of Accumulated Plan Benefits	<u>\$ 1,218,874</u>	<u>\$ 1,176,339</u>

The increase in actuarial present value of accumulated plan benefits during the years ended June 30, 2018 and 2017, resulted from the following (in thousands):

	<u>2018</u>	<u>2017</u>
Actuarial Present Value of Accumulated Plan Benefits at Beginning of Fiscal Year	\$ 1,176,339	\$ 1,140,025
Changes During the Plan Year Attributable to:		
Net actuarial loss	27,186	28,321
Plan amendment and changes in Plan provisions	4,019	-
Increase for interest due to the decrease in the discount period	82,701	80,246
Change in actuarial assumptions	(5,573)	(10,995)
Benefits paid (including lump sum amounts)	<u>(65,798)</u>	<u>(61,258)</u>
Net increase	<u>42,535</u>	<u>36,314</u>
Actuarial Present Value of Accumulated Plan Benefits at End of Fiscal Year	<u>\$ 1,218,874</u>	<u>\$ 1,176,339</u>

The significant actuarial assumptions used in the valuations as of June 30, 2018 and 2017, were as follows:

- Mortality: Disabled Mortality: RP-2014 generational combined annuitant and non-annuitant tables projected using Scale MP-2017 (2018) and RP-2014 generational combined annuitant and non-annuitant tables projected using Scale MP-2016 (2017). Healthy Mortality: RP-2014 generational white-collar separate annuitant and non-annuitant tables projected using Scale MP-2017 (2018) and RP-2014 generational white-collar separate annuitant and non-annuitant tables projected using Scale MP-2016 (2017).

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

-
- Assumed retirement rates are stratified by various age (and/or service) ranges, with 100% assumed to be retired by age 70.
 - Assumed turnover rates are based on plan experience, by various age categories.
 - Interest rate of 7.25% (2018 and 2017).

The foregoing actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated plan benefits.

The increase due to plan amendments indicated in the table above relates to the adopted amendment which provides for the participation of employees represented by HAMTC in the Plan as provided under the collective bargaining agreement between Battelle and HAMTC.

The change in actuarial assumptions pertains primarily to the change in the actuarial mortality scale modified as indicated above.

6. FUNDING POLICY

The employer makes contributions to the Plan, which are expected to be sufficient to provide the defined benefits of the Plan. Such contributions, as determined by actuaries, include provisions for normal costs as they accrue and unfunded prior service cost over a maximum of 30 years. Minimum funding requirements as set forth in ERISA have been met for the years ended June 30, 2018 and 2017.

7. PLAN TERMINATION

Although it has not expressed any intention to do so, Battelle has the right under the Plan to discontinue its contributions at any time and terminate the Plan subject to the provisions set forth in ERISA. Should the Plan be terminated at some future time, all participants become fully vested in benefits earned as of the termination date.

In the event the Plan terminates, the net assets of the Plan will be allocated, as prescribed by ERISA and its related regulations, generally to provide the following benefits in the order indicated:

- a. Benefits of any participant who retired three years or more prior to the date of termination or who could have retired as of such date (in the normal form of annuity) without in either case giving effect to any increase in benefits, which has been put into effect by a Plan amendment within five years prior to such date.
- b. Other vested benefits insured by the Pension Benefit Guaranty Corporation (PBGC) up to the applicable limitations discussed below.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

- c. All other vested benefits that are not insured by the PBGC.
- d. All nonvested benefits.

Certain benefits under the Plan are insured by the PBGC if the Plan terminates. Generally, the PBGC guarantees most vested normal age retirement benefits, early retirement benefits, and certain disability and survivor's pensions. However, the PBGC does not guarantee all types of benefits under the Plan, and the amount of benefit protection is subject to certain limitations.

Whether all participants receive their benefits should the Plan terminate at some future time will depend on the sufficiency, at that time, of the Plan's net assets to provide for accumulated benefit obligations and may also depend on the financial condition of the Plan Sponsor and the level of benefits guaranteed by the PBGC.

8. EXEMPT PARTY-IN-INTEREST TRANSACTIONS

In 2018 and 2017, the shares of the short-term investment fund (a collective trust) held by the Master Trust were managed by The Northern Trust Company (Northern Trust). Northern Trust was the trustee as defined by the Plan, and therefore, these transactions qualify as party in interest. In addition, certain Plan investments were held in companies that also serve as portfolio managers, and these transactions also qualify as party in interest. The Plan Sponsor was reimbursed for certain administrative expenses from the Plan.

9. FEDERAL INCOME TAX STATUS

The Internal Revenue Service (IRS) has determined and informed Battelle by a letter dated April 27, 2010, that the Plan, as amended, and related Master Trust are designed in accordance with applicable sections of the Internal Revenue Code (IRC). The Plan has been amended since receiving the determination letter; however, Plan management believes that the Plan is currently designed and operated in compliance with the applicable requirements of the IRC, and the Plan and related trust continue to be tax exempt. Therefore, no provision for income taxes has been included in the Plan's financial statements.

GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan Administrator has analyzed the tax positions taken by the Plan and has concluded that as of June 30, 2018 and 2017, there are no uncertain positions taken or expected to be taken that would require recognition of a liability or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

10. DERIVATIVE FINANCIAL INSTRUMENTS

There are derivative contracts included with the cash equivalents of the assets of the Master Trust as of June 30, 2018 and 2017. These derivatives are futures that are recorded at fair value. These derivatives are used for the purpose of gaining market exposure.

Derivative Assets at Year-End	June 30, 2018		
	Notional Value	Last Days Mark	Number of Contracts
	(in thousands)	(in thousands)	
Type of Exposure:			
Fut Sep 18 Cbt Ul T-Bonds	\$ 14,361	\$ (1)	90
Fut Sep 18 Cdn Dollar	838	8	11
Fut Sep 18 Emini S&P 500	32,115	64	236
Fut Sep 18 Iceus Sm Rus2	4,448	(8)	54
Fut Sep 18 Icus Msci Eaf	8,310	69	85
Fut Sep 18 Icus Msci Emg	3,084	63	58
Fut Sep 18 Immemini Mdcg	4,890	13	25
Fut Sep 18 Me S&P Can 60	1,025	7	7
Fut Sep 18 U.S. T-Bonds	1,015	-	7
	<u>\$ 70,086</u>	<u>\$ 215</u>	

During the year ended June 30, 2018, there was a net realized gain of \$2,348 and a last day's mark of \$215.

**PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES,
BATTELLE MEMORIAL INSTITUTE
NOTES TO FINANCIAL STATEMENTS**

AS OF AND FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

(Dollars in thousands)

Derivative Assets at Year-End	June 30, 2017		
	Notional Value (in thousands)	Last Days Mark (in thousands)	Number of Contracts
Type of Exposure:			
Fut Sep 17 Cbt Ul T-Bonds	\$ 6,967	\$ (31)	42
Fut Sep 17 Cdn Dollar	463	2	6
Fut Sep 17 Emini S&P 500	22,272	10	184
Fut Sep 17 Iceus Sm Rus2	2,758	(7)	39
Fut Sep 17 Icus Msci Eaf	6,614	5	70
Fut Sep 17 Icus Msci Emg	2,319	14	46
Fut Sep 17 Immemini Mdcg	3,667	3	21
Fut Sep 17 Me S&P Can 60	548	(2)	4
Fut Sep 17 U.S. T-Bonds	154	(1)	1
	<u>\$ 45,762</u>	<u>\$ (7)</u>	

During the year ended June 30, 2017, there was a net realized gain of \$5,151 and a last day's mark of (\$7).

At the time Battelle enters into a futures contract, it is generally required to make a margin deposit with the custodian of a specified amount of liquid assets. Subsequent payments are made or received by the investment fund equal to the daily change in the contract value and are recorded as variation margin receivable or payable and offset in unrealized gains or losses. Futures are marked to market each day, with the change in value reflected in the unrealized gains and losses.

The use of futures contracts involves, to varying degrees, elements of market and counterparty risk, which may exceed the amounts recognized in the statements of net assets available for benefits. Futures contracts present the following risks: imperfect correlation between the change in market value of a fund's securities and the price of futures contracts; the possible inability to close a futures contract when desired; losses due to unanticipated market movements, which potentially are unlimited; and the possible inability of Battelle to correctly predict the direction of securities prices, interest rates, currency exchange rates, and other economic factors. Futures markets are highly volatile, and the use of futures may increase the volatility of an investment's value. As a result of low margin deposits normally required in futures trading, a relatively small price movement in a futures contract may result in substantial losses to Battelle. Futures contracts may be illiquid, and exchanges may limit fluctuations in futures contract prices during a single day. All of the future contracts are traded on a U.S. exchange.

SCHEDULE OF ASSETS (HELD AT END OF YEAR)
Form 5500, Schedule H, Part IV, Line 4i

Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute

EIN: 31-4379427
Plan Number 005

June 30, 2018

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(In Thousands)	
			(d) Cost	(e) Current Value
*	Northern Trust Company	Plan Interest in Master Trust	\$ 1,361,889	\$ 1,609,535
	Total Investments		<u>\$ 1,361,889</u>	<u>\$ 1,609,535</u>

* Party-in-interest to the Plan.

Schedule SB, Part V – Summary of Plan Provisions

Summary of Major Plan Provisions

Effective date and plan year	Original plan: July 18, 1941 Restated plan: July 1, 2008 Plan year: July 1 through June 30
Status of the plan	The plan has ongoing benefit accruals and new employees are eligible to participate in the plan once they satisfy the participation requirements.
Significant events that occurred during the year	None
Definitions	
• Covered employees	Any Employee who is employed by a Participating Employer and who is not classified as one or more of the following: (1) a member of the Board of Directors unless member is also an Employee; (2) an employee who is covered by a collective bargaining agreement unless such agreement provides for participation in the Plan; (3) an individual employed outside the United States by a foreign-based subsidiary or division of Employer; (4) an employee who is covered by any other qualified defined benefit pension plan funded by Employer; (5) an employee of any Battelle Affiliate that has not adopted this Plan for its employees; (6) a Leased Employee; (7) an independent contractor; (8) effective on and after February 13, 2003, an individual employed as a telephone interviewer; (9) interns and co-op students; and (10) Limited Term Employees.
• Participation	Participation commences on the date of employment for employees other than hourly employees. Hourly employees participate after completing 1,000 hours of service.
• Employee contributions	None.
• Credited service for vesting	A participant receives one year of Credited Service for Vesting for every plan year he is credited with at least 1,000 hours of service or a fraction of a year if credited with at least 500 hours of service.
• Credited service for benefit accrual	A participant receives one year of Credited Service for Benefit Accrual for every plan year he is credited with at least 2,080 hours, or a fraction of a year if credited with less than 2,080 hours. Note that hourly employees must complete a minimum of 1,000 hours of service to receive any credit.
• Monthly compensation	Monthly equivalent of compensation as if the employee worked full-time. Effective July 1, 2001, incentive compensation and overtime are counted as plan compensation. However, compensation is limited by IRC 401(a)(17) annually (indexed for future years).
• Final average earnings	The average of the highest 60 consecutive months of compensation.
• Accrued benefit	The normal retirement benefit based on Credited Service for Benefit Accrual and Final Average Compensation on the date of determination.

Schedule SB, Part V – Summary of Plan Provisions

Normal retirement	
• Eligibility	Attainment of age 65
• Benefit	<p>The larger of i. and ii.</p> <p>i. 1.2% of Final Average Compensation times Credited Service for Benefit Accrual (maximum of 40 years)</p> <p>ii. The sum of a. plus b.</p> <p>a. <u>For service after July 1, 2012</u> – 1.2% of Final Average Compensation times Credited Service for Benefit Accrual</p> <p>b. <u>For service prior to July 1, 2012*</u> – The larger of 1. and 2.</p> <p>1. 1.6% of Final Average Compensation multiplied by Credited Service for Benefit Accrual, and</p> <p>2. Accrued Retirement Benefit as of June 30, 1994, plus 1.6% of Final Average Compensation multiplied by Credited Service for Benefit Accrual after June 30, 1994.</p> <p>Credited Service for Benefit Accrual for (a) and (b) cannot exceed 40 years.</p> <p>*For any Member who has attained age 50 and completed at least 15 years of Credited Service for Vesting as of June 30, 2012, benefits under (b.1.) and (b.2.) use Final Average Compensation as of their date of termination. For any other Member not meeting these criteria, benefits under (b.1.) and (b.2.) use Final Average Compensation on June 30, 2012</p> <p>Benefits attributable to service prior to July 1, 2009 under (b) are increased by 9.76% to account for the change in normal form of payment from 10 years Certain and Life to Single Life Annuity.</p>
Early retirement	
• Eligibility	The later of attainment of age 55 and the completion of 10 years of Credited Service for Vesting.
• Benefit attributable to credited service for benefit accrual earned prior to July 1, 2009	The accrued benefit is reduced 1/2% for each month the early retirement date precedes age 60.
• Benefit attributable to credited service for benefit accrual earned after July 1, 2009	Normal retirement benefit, actuarially reduced based on the RP 2000 white collar mortality table, projected to 2025 using scale AA, and blended 60% male and 40% female and 7% interest compounded annually.

Schedule SB, Part V – Summary of Plan Provisions

Late retirement	
• Eligibility	Actual retirement after age 65.
• Benefit	The benefit reflects Credited Service for Benefit Accrual and Monthly Compensation earned after age 65.
Deferred vested	
• Eligibility	100% after 5 years of Credited Service for Vesting; no vesting prior to completion of 5 years of Credited Services for Vesting. Participant is 100% vested on normal retirement date.
• Benefit	Accrued Retirement Benefit payable at age 65 or payable at or after age 55 and reduced for each month benefit commencement date precedes age 65.
Disability	
• Eligibility	Only employees other than hourly employees are eligible for special disability benefits. Total and permanent disability is defined in the Plan.
• Benefit	A monthly benefit equal to the regular retirement benefit with Monthly Compensation and Credited Service for Benefit Accrual determined at retirement as if the participant were employed on the same basis as immediately before disablement. This benefit will be reduced for early retirement, if applicable.
Pre-retirement death	
• Eligibility	Eligible if employee has a vested benefit.
• Benefit prior to early retirement	For death after vesting but prior to early retirement eligibility the benefit is equal to the vested Accrued Retirement Benefit payable at the earliest date the participant could have retired. The amount is reduced as for early retirement and is payable as a 50% joint and survivor annuity (benefits are payable for 120 months if there is no surviving spouse).
• Benefit after early retirement eligible	For death after early retirement eligibility the benefit is calculated as if the participant retired the day before death and elected a 100% joint and survivor annuity (benefits are payable for 120 months if there is no surviving spouse).
Form of benefits	
• Automatic form for unmarried participants	Single Life Annuity
• Automatic form for married participants	50% Joint & Survivor Annuity
• Optional forms	50%, 75%, or 100% joint and survivor annuity, life annuity with 5 or 10 years of payments certain to be made. Additional options include a guaranteed number of payments of any duration with or without a life annuity. Participants who terminate employment on or after July 1, 2015 with a present value of accrued benefits less than \$125,000 can elect to receive their benefit in the form of a lump sum.

Schedule SB, Part V – Summary of Plan Provisions

<ul style="list-style-type: none"> Optional form conversion factors 	<p>Optional forms of benefit, other than the lump sum, are determined using the RP 2000 white collar mortality table, projected to 2025 using Scale AA, and blended 60% male and 40% female and 7% interest compounded annually.</p> <p>Lump sums are determined using 417(e) interest and mortality.</p>
Miscellaneous	
<ul style="list-style-type: none"> Maximum compensation 	<p>Compensation for any 12-month period used to determine accrued benefits may not exceed the limits in IRC Section 401(a)(17) for the calendar year in which the 12-month period begins. This limit is indexed annually. For 2017, the limit is \$270,000.</p>
<ul style="list-style-type: none"> Maximum benefits 	<p>Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2017, the limit is \$215,000.</p>

Summary of Major Plan Provisions for HAMTC Staff Members

The same terms in effect currently for PNNL Pension Plan employees shall be provided to the HAMTC staff members with the following exceptions guaranteed until June 30, 2026:

Definitions	
<ul style="list-style-type: none"> Final average earnings 	<p>The average of the highest 60 consecutive months of compensation. For staff members with at least 10 years of pension vesting service as of July 1, 2016, the final average earnings calculation will apply to service worked in both Hanford and PNNL Pension Plans.</p>
Normal retirement	
<ul style="list-style-type: none"> Benefit 	<p>Staff members with at least 10 years of Credited Service for Vesting on July 1, 2016:</p> <ul style="list-style-type: none"> 1.6% of Final Average Compensation multiplied by years of Credited Service for Benefit Accrual (maximum of 40 years) and on the basis of a 10 year certain annuity. <p>Staff members with less than 10 years of Credited Service for Vesting on July 1, 2016:</p> <ul style="list-style-type: none"> 1.2% of Final Average Compensation multiplied by years of Credited Service for Benefit Accrual (maximum of 40 years) and on the basis of a life annuity.
Early retirement	
<ul style="list-style-type: none"> Eligibility 	<p>The later of attainment of age 55 and the completion of 3 years of Credited Service for Vesting unless eligible for immediate vesting³.</p>
<ul style="list-style-type: none"> Benefit for staff hired on or before September 1, 2015 	<p>The accrued benefit is reduced 1/2% for each month the early retirement date precedes age 60.</p>

³ Staff members already vested in the Hanford Pension Plan as of July 1, 2016 are immediately vested in the PNNL Pension Plan.

Schedule SB, Part V – Summary of Plan Provisions

• Benefit for staff hired after September 1, 2015	Normal retirement benefit, actuarially reduced based on the RP 2000 white collar mortality table, projected to 2025 using scale AA, and blended 60% male and 40% female and 7% interest compounded annually.
Deferred vested	
• Eligibility	100% after 3 years of Credited Service for Vesting unless eligible for immediate vesting ⁸ . Participant is 100% vested on normal retirement date.
Form of benefits	
• Optional forms	Annuity forms offered in the PNNL Plan and an unlimited lump sum payment. Staff members hired after September 1, 2015 can only elect a lump sum form of payment if the present value of accrued benefits is less than \$125,000.

Benefits Included or Excluded

Unless noted below, all benefits provided by the plan are included in this valuation.

- **Most recent plan amendments included:** The plan amendment approved and effective as of June 30, 2016 to allow eligible staff members of the Hanford Atomic Metal Trades Council (HAMTC) to participate in the Plan has been included because it was adopted by the valuation date and is effective by the end of the plan year.
- **Plan amendments excluded:** None.
- **Late retirement increases:**
 - *Active participants:* The plan provides benefit suspension notices to participants who work beyond normal retirement; therefore, late retirement actuarial increases only apply to participants who defer retirement beyond age 70½. This valuation does not currently include increases for current participants over age 70 as it was determined the effect of doing so would be minimal. This will be reevaluated annually.
 - *Deferred vested participants:* Current deferred vested participants over normal retirement age are valued including the late retirement actuarial increase.
- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Section 415(b) and 401(a)(17) have been incorporated into our calculations.
- **IRC Section 416 rules for top-heavy plans:** We did not test whether this plan is top-heavy (when the present value of benefits for key employees equals or exceeds 60% of the present value for all participants). Therefore, the funding target and target normal cost do not reflect any liability for top-heavy benefit accruals.

Plan Provisions Specific to Funding

Additional Benefits Included or Excluded

- **IRC Section 436 benefit restrictions:**
 - *Unpredictable contingent event benefits:* This valuation excludes restricted contingent event benefits that occurred before the valuation date but includes contingent event benefits which are expected to occur on or after the valuation date regardless of anticipated funding-based limitations.
 - *Plan amendments:* See above.

Schedule SB, Part V – Summary of Plan Provisions

- *Prohibited payments:* The plan does not have any limitations on prohibited benefits prior to the valuation date.
- *Benefit accruals:* The plan's funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.
- **Unpredictable contingent event benefits:** The plan does not have any unpredictable contingent event benefits.

Plan Provision Changes Since Prior Valuation

Maximum compensation amounts and maximum benefit amounts under IRS rules were updated from 2016 to 2017.

Schedule SB, line 26 – Schedule of Active Participant Data

Attained age	Years of credited service										
	Under 1	1–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40 & up	Total
Under 25	23 59,752	20 63,952									43
25–29	64 68,061	113 73,434	19								196
30–34	66 82,374	191 85,817	108 81,082	22 80,694	1						388
35–39	51 91,681	135 98,104	198 100,341	85 100,499	30 89,655	1					500
40–44	41 91,407	105 95,177	139 105,328	110 115,913	62 114,199	14	4				475
45–49	35 100,967	96 109,513	102 112,143	101 119,425	95 130,834	58 121,231	33 111,109	2			522
50–54	42 81,630	72 112,601	91 113,823	104 126,592	113 124,052	91 137,161	90 126,587	23 121,415	1		627
55–59	49 107,800	53 111,115	85 111,433	77 113,902	84 123,654	80 133,440	95 140,241	61 138,408	20 112,071		604
60–64	15	34 109,455	53 127,054	42 122,961	52 133,910	43 131,636	70 138,377	45 141,647	35 142,173	10	399
65–69	4	14	9	8	8	17	8	6		3	77
70 & up		1			1	1	1	1		2	7
Total	390	834	804	549	446	305	301	138	56	15	3,838

In each cell, the top number is the count of active participants for each age/service combination and the bottom number is average pay for 2016 limited to \$265,000. Average pay is not shown for cells with fewer than 20 participants.

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

Actuarial Assumptions for July 1, 2017 Funding Valuation

Discount rate sponsor elections

• Segment rates or full yield curve	Segment		
• Look-back months	4		
		Stabilized	Nonstabilized
• First 5 years		4.16%	1.62%
• Next 15 years		5.72%	3.80%
• Over 20 years		6.48%	4.75%

The segment rates above are mandated by PPA. Stabilized segment rates are in accordance with the changes made by MAP-21, HATFA, and BBA 2015.

Mortality sponsor elections

• Healthy participants	Section 430(h)(3) prescribed separate generational annuitant and nonannuitant mortality tables.
• Pre-1995 disabilities	Revenue Ruling 96-7 table for participants who became disabled before 1995
• Post-1994 disabilities	Revenue Ruling 96-7 table for participants who became disabled after 1994 and are eligible for Social Security disability benefits

The mortality sponsor elections above are mandated by PPA.

417(e) lump sums	Lump Sums payable to all participants with a present value of accrued benefits less than \$125,000. Liabilities are determined based on the underlying annuity used by the plan to determine the lump sum amount, rather than valuing the lump sum payment. This annuity is valued based on funding interest rates rather than 417(e) rates and unisex generational mortality
-------------------------	---

Lump sum sponsor elections are mandated by PPA.

Non-417(e) lump sums

• Mortality table	Not applicable
• Interest rate	Not applicable

Other economic assumptions

• Salary increases	Salary rates begin with 11.25% at age 20 and reduce until age 70 where the rate is then held constant at 1.05%. This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014 and is adjusted to reflect Battelle Memorial Institute's future budgeted salary increases. See table of sample rates
• Inflation	2.50% per year. This assumption is based on a long-term average of the inflation assumption periodically published by Mercer Investment Consulting in their Capital Markets Outlook.

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

- **Expected investment return** 7.25% per year for 2016 through 2017; 7.75% per year for years 2011 through 2015. Mercer's best estimate return utilizes the weighted average approach rounded to the nearest 25 basis points, weighting 60% with forward looking asset return assumptions and 40% with the building block method recognizing current yields, which defines the return as the sum of three components: inflation, risk-free return, and risk premium, all offset by an expense load. Assumptions for these components are derived from the Mercer Investment Consulting Capital Market Outlook as of July 1, 2017. Risk premiums are applied appropriately to reflect Battelle Memorial Institute's actual asset allocation.
- **Expenses** The prior plan year's administrative and investment expenses, excluding the prior year's PBGC premiums paid, adjusted for expected events (if any) and anticipated current year PBGC premiums, rounded up to the next \$5,000. For the 2017/2018 plan year, this amount is \$10,510,000 and has been added to 2017/2018 normal cost
- **Accrual of future credited service for benefit accrual** Hourly employees are assumed to accrue 0.25 of a year during each future plan year. Non-hourly employees are assumed to accrue 1 year times their percent full-time for each future year of employment. This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014. The plan sponsor believes that this period is representative of anticipated future experience.

Demographic assumptions

- **Withdrawal** Rates are based on length of service and age. This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014. See table of sample rates. The plan sponsor believes that this period is representative of anticipated future experience.
- **Disability incidence** Rates are based on age. This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014. See table of sample rates. The plan sponsor believes that this period is representative of anticipated future experience.

- **Retirement age**

Attained age	Percentage
Under 59	3.8%
59	5.8%
60-61	12.7%
62	18.6%
63	16.5%
64	19.8%
65-69	33%
70 and above	100%

This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014. See table of sample rates. The plan sponsor believes that this period is representative of anticipated future experience.

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

- Benefit commencement age for
 - Future vested deferred 62
 - Current vested deferred 63 if terminated before July 1, 2009
62 if terminated on or after July 1, 2009

This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014. The plan sponsor believes that this period is representative of anticipated future experience.

- | | | |
|-------------------------|---------------------------------|-----------------------------------|
| • Spouse assumptions | <u>Male participants</u> | <u>Female participants</u> |
| – Percentage married | 80% | 65% |
| – Spouse age difference | 2 years younger | 2 years older |

This assumption is based on an experience study covering the period July 1, 2009 to June 30, 2014. The plan sponsor believes that this period is representative of anticipated future experience.

Form of payment	<u>Single Life</u>	<u>10-year Certain & Life</u>	<u>100% J&S</u>	<u>100% J&S with 10-years Certain</u>	<u>Lump Sum</u>	<u>50% J&S</u>
Lump Sum Eligible¹						
• Active retirements	21%	3%	18%	6%	40%	12%
• Future vested deferred	21%	3%	18%	6%	40%	12%
• Current vested deferred ²	25%	25%	20%	20%	0%	10%
• Deferred beneficiaries	0%	0%	0%	0%	40%	60%
• Current and future disabilities	60%	0%	0%	0%	40%	0%
• Future deaths	0%	60% (if single)	0%	0%	40%	60% (if married)
Not Lump Sum Eligible						
• Active retirements	35%	5%	30%	10%	0%	20%
• Future vested deferred	35%	5%	30%	10%	0%	20%
• Current vested deferred	25%	25%	20%	20%	0%	10%
• Deferred beneficiaries	0%	0%	0%	0%	0%	100%
• Current and future disabilities	100%	0%	0%	0%	0%	0%
• Future deaths	0%	100% (if single)	0%	0%	0%	100% (if married)

The assumption for annuity elections is based on an experience study covering the period July 1, 2009 to June 30, 2014. The lump sum election assumption was reviewed using data from July 1, 2015 through June 30, 2017 with a 40% credibility weighting. The plan sponsor believes that the period reviewed for annuity and lump sum elections is representative of anticipated future experience.

Unpredictable contingent event assumptions

Not Applicable

¹ Participants who terminate employment on or after July 1, 2015 with a present value of accrued benefits less than \$125,000 can elect to receive their benefit in the form of a lump sum.

² Current vested deferred participants other than deferred beneficiaries and deferred disabled participants are assumed not to elect a lump sum form of payment.

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

Table of Sample Rates

Attained age	Percentage			
	Withdrawal - Unisex		Disability Incidence Unisex	Salary Increases
	Less than 5 years of service	More than 5 years of service		
20	15.0%	16.7%	0.000%	11.25%
25	11.1	3.8	0.0367	7.00
30	12.0	4.0	0.0367	5.60
35	12.8	3.3	0.1310	4.75
40	13.9	3.1	0.1310	3.70
45	11.1	3.0	0.2825	3.40
50	11.9	3.2	0.2825	3.00
55	15.3	9.0	0.3376	2.55
60	17.4	17.4	0.3376	2.30
65	N/A	N/A	0.2208	1.95
70	N/A	N/A	N/A	1.05

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

Healthy Mortality- PPA Generational Table (Annuitant Illustrated)								
Attained Age	Male				Female			
	2018	2023	2028	2033	2018	2023	2028	2033
20	0.035%	0.035%	0.035%	0.035%	0.019%	0.019%	0.019%	0.019%
25	0.038	0.038	0.038	0.038	0.021	0.021	0.021	0.021
30	0.044	0.044	0.044	0.044	0.026	0.026	0.026	0.026
35	0.077	0.077	0.077	0.076	0.048	0.048	0.048	0.046
40	0.108	0.108	0.105	0.101	0.071	0.071	0.068	0.063
45	0.224	0.216	0.202	0.189	0.112	0.107	0.099	0.091
50	0.506	0.462	0.422	0.386	0.223	0.204	0.188	0.172
55	0.507	0.460	0.418	0.380	0.331	0.318	0.306	0.294
60	0.665	0.613	0.566	0.522	0.581	0.567	0.553	0.539
65	1.041	0.970	0.904	0.843	0.947	0.924	0.901	0.878
70	1.569	1.454	1.349	1.250	1.492	1.455	1.419	1.384
75	2.549	2.376	2.214	2.063	2.245	2.156	2.071	1.990
80	4.620	4.394	4.178	3.973	3.639	3.513	3.392	3.275
85	8.481	8.188	7.906	7.633	6.161	5.979	5.802	5.630
90	15.437	15.131	14.831	14.537	11.572	11.400	11.230	11.062
95	24.298	24.056	23.817	23.579	17.669	17.493	17.319	17.146
100	32.676	32.513	32.351	32.189	22.520	22.408	22.296	22.185

Table illustrates mortality probabilities for individuals turning age 65 in the indicated years.

Actuarial Methods for Funding

Asset Methods

The asset valuation method is an average of the adjusted market value for each year during the last two years preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110% and no less than 90% of the fair market value, as defined in IRC Section 430.

A characteristic of this asset method is that, over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

Participant Methods

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** The plan sponsor provides us with data on all employees as of the valuation date, but only those employees who have completed the plan's eligibility requirements are included in the valuation of liabilities.
- **Participants excluded:** No actuarial liability is included for nonvested participants who terminated prior to the valuation date. For this purpose, participants with a break in service on the valuation date are treated as terminated participants.
- **Insurance contracts:** The plan does not have any insurance contracts.

Minimum Funding Methods

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual is the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.
- This plan provides disability/death benefits that are only partially based on a participant's accrued benefit or years of service. This benefit is allocated to funding target based on the accrued benefit on the valuation date plus a portion of the excess of the benefit over the accrued benefit multiplied by the ratio of the participant's service at the beginning of the plan year to their service at each decrement age. This benefit is allocated to target normal cost based on the proportionate benefit attributable to the increase in the participant's service and compensation during the plan year.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's **funding target** is the sum of the individual funding targets for all participants under the plan.

Maximum Suggested Contribution Funding Methods

Calculations of maximum suggested contributions include the excess of the funding target computed using the projected unit credit method over the minimum funding target. The objective of the projected unit credit method is to fund each participant's benefits under the plan as they accrue, taking into consideration expected future compensation increases. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited

Schedule SB, Part V – Statement of Actuarial Assumptions/Methods

service.

A detailed description of the calculation follows:

- An individual's **projected funding target** is the present value of benefits based on credited service as of the beginning of the plan year and projected compensation that would be used in the calculation of the benefit on each expected separation date. If multiple decrements are used, the projected funding target for an individual is the sum of the component projected funding targets associated with the various anticipated separation dates.
- The plan's **projected funding target** is the sum of the projected funding targets for all participants under the plan. The excess of the plan's projected funding target over the plan's funding target is included in the "cushion amount."

Schedule SB, line 32 – Schedule of Amortization Bases

The total shortfall amortization charge is the sum of the individual shortfall amortization installments for each plan year since the IRC Section 430 changes made by the Pension Protection Act of 2006 (PPA) took effect for the plan. Although an individual shortfall amortization installment can be negative, the combined shortfall amortization charge cannot be less than \$0.

Shortfall bases

Year established		Outstanding balance	Years remaining		2017 Installment
2017	\$	23,109,078	7	\$	3,794,781
Total	\$	23,109,078		\$	3,794,781

Schedule SB, line 24 – Change in Actuarial Assumptions

The following changes were made for the plan year beginning July 1, 2017.

- Interest discounts and mortality rates were updated from 2016 to 2017 in accordance with PPA.
- The expense component of normal cost was increased from \$9,250,000 to \$10,510,000 to reflect our expectations for the current plan year.
- The form of payment assumption was updated to assume 40% of lump sum eligible participants elect a lump sum distribution (50% last year). The probabilities of electing other forms of payment were adjusted proportionately.

Schedule SB, line 22 – Description of Weighted Average Retirement Age

Each employee is assumed to retire in accordance with the table of retirement rates. The proportion of employees expected to retire at each potential retirement age is shown below. The average retirement age is 63.

(A) Retirement age	(B) Retirement percent	(C) Lx	(D) Number of employees expected to retire (B) x (C)	(E) (A) x (D)
55	3.8%	100,000	3,800	209,000
56	3.8%	96,200	3,656	204,714
57	3.8%	92,544	3,517	200,451
58	3.8%	89,028	3,383	196,217
59	5.8%	85,645	4,967	293,076
60	12.7%	80,677	10,246	614,761
61	12.7%	70,431	8,945	545,631
62	18.6%	61,486	11,436	709,062
63	16.5%	50,050	8,258	520,270
64	19.8%	41,792	8,275	529,585
65	33.0%	33,517	11,061	718,939
66	33.0%	22,456	7,411	489,100
67	33.0%	15,046	4,965	332,662
68	33.0%	10,081	3,327	226,210
69	33.0%	6,754	2,229	153,790
70	100.0%	4,525	4,525	316,765
Total			100,000	6,260,233
Average				62.60

The weighted average retirement age is the total for column E divided by the total for column D, rounded to the nearest integral age. It should be noted that while only integral values are shown in the table, the full content of each cell, including decimal portions, is used in the calculations.

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ► Complete all entries in accordance with the instructions to the Form 5500.	OMB Nos. 1210 - 0110 1210 - 0089 2017 This Form is Open to Public Inspection
---	--	---

Part I Annual Report Identification Information			
For calendar plan year 2017 or fiscal plan year beginning <u>07/01/2017</u> and ending <u>06/30/2018</u>			
A	This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instr.)	
B	This return/report is:	☒ a single-employer plan	☐ a DFE (specify) _____
		☐ the first return/report	☐ the final return/report
		☐ an amended return/report	☐ a short plan year return/report (less than 12 months)
C	If the plan is a collectively-bargained plan, check here ☐ ►		
D	Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ the DFVC program	
		☐ special extension (enter description)	

Part II Basic Plan Information - enter all requested information			
1a	Name of plan PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES BATTELLE MEMORIAL INSTITUTE	1b	Three-digit plan number (PN) ► 005
		1c	Effective date of plan 07/18/1941
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) BATTELLE MEMORIAL INSTITUTE 505 KING AVENUE COLUMBUS OH 43201	2b	Employer Identification Number (EIN) 31-4379427
		2c	Plan Sponsor's telephone number 614-424-7104
		2d	Business code (see instructions) 541990

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

Plan Administrator			
SIGN HERE	 Vida M. Bowen plan administrator	Date <u>04/15/2019</u>	Enter name of individual signing as plan administrator Vida M. Bowen
SIGN HERE	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2017)
v. 170203

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number <div style="background-color: #cccccc; height: 40px; width: 100%;"></div>
--	--

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
--	-----------------------------------

5 Total number of participants at the beginning of the plan year	5	7,765
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1), 6a(2), 6b, 6c, and 6d).		
a(1) Total number of active participants at the beginning of the plan year	6a(1)	3,838
a(2) Total number of active participants at the end of the plan year	6a(2)	3,745
b Retired or separated participants receiving benefits	6b	2,490
c Other retired or separated participants entitled to future benefits	6c	1,314
d Subtotal. Add lines 6a(2), 6b, and 6c	6d	7,549
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits	6e	267
f Total. Add lines 6d and 6e	6f	7,816
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	6g	
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6h	77
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

1A 3F 3H

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)	9b Plan benefit arrangement (check all that apply)
(1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	(1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1) ☒ **R** (Retirement Plan Information)
 (2) ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
 (3) ☒ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- (1) ☒ **H** (Financial Information)
 (2) ☐ **I** (Financial Information - Small Plan)
 (3) ☐ **A** (Insurance Information)
 (4) ☒ **C** (Service Provider Information)
 (5) ☒ **D** (DFE/Participating Plan Information)
 (6) ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2017 Form M-1 annual report. If the plan was not required to file the 2017 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
--	--	---

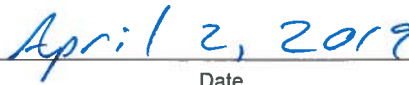
For calendar plan year 2017 or fiscal plan year beginning 07/01/2017 and ending 06/30/2018

▶ **Round off amounts to nearest dollar.**
▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan PENSION PLAN OF THE PACIFIC NORTHWEST LABORATORIES, BATTELLE MEMORIAL INSTITUTE	B Three-digit plan number (PN) ▶ 005
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF BATTELLE MEMORIAL INSTITUTE	D Employer Identification Number (EIN) 31-4379427
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I Basic Information			
1 Enter the valuation date: Month 07 Day 01 Year 2017			
2 Assets:			
a Market value	2a	1,517,903,584	
b Actuarial value	2b	1,465,799,216	
3 Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	2,692	662,615,745	662,615,745
b For terminated vested participants	1,288	113,311,476	113,311,476
c For active participants	3,838	500,817,219	508,914,350
d Total	7,818	1,276,744,440	1,284,841,571
4 If the plan is in at-risk status, check the box and complete lines (a) and (b) ☐			
a Funding target disregarding prescribed at-risk assumptions	4a		
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b		
5 Effective interest rate	5	5.95%	
6 Target normal cost	6	38,262,969	

Statement by Enrolled Actuary
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE  Signature of actuary MATTHEW LITTLE, FSA, EA Type or print name of actuary MERCER Firm name ONE TOWNE SQUARE, SUITE 1100 SOUTHFIELD MI 48076 Address of the firm	  Date 1708076 Most recent enrollment number 248-945-5500 Telephone number (including area code)
--	---

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....	0	178,699,957
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9 Amount remaining (line 7 minus line 8).....	0	178,699,957
10 Interest on line 9 using prior year's actual return of <u>11.79%</u>	0	21,068,725
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year).....		4,049,789
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.13%</u>		248,252
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return.....		0
c Total available at beginning of current plan year to add to prefunding balance.....		4,298,041
d Portion of (c) to be added to prefunding balance.....		4,298,041
12 Other reductions in balances due to elections or deemed elections.....	0	0
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12).....	0	204,066,723

Part III Funding Percentages

14 Funding target attainment percentage	14	98.20%
15 Adjusted funding target attainment percentage.....	15	114.08%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	101.09%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
06/22/2018	10,000,000	0			
09/26/2018	13,292,347	0			
Totals ▶			18(b)	23,292,347	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.....	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date.....	19c	21,826,092

20 Quarterly contributions and liquidity shortfalls:

- a** Did the plan have a "funding shortfall" for the prior year?..... ☐ Yes ☒ No
- b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?..... ☐ Yes ☐ No
- c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.16 %	2nd segment: 5.72 %	3rd segment: 6.48 %	☐ N/A, full yield curve used
b Applicable month (enter code).....				21b 4
22 Weighted average retirement age				22 63
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.	☒ Yes ☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.	☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	38,262,969	
b Excess assets, if applicable, but not greater than line 31a	31b	0	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment	23,109,078	3,794,781	
b Waiver amortization installment	0	0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33	0	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)....	34	42,057,750	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....	0	20,231,658	20,231,658
36 Additional cash requirement (line 34 minus line 35).....	36	21,826,092	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....	37	21,826,092	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	0	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37).....	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☒ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☒ 2011		
42 Amount of acceleration adjustment	42	0	
43 Excess installment acceleration amount to be carried over to future plan years	43	0	