UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Amendment No. 2

to

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Aqua Metals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State of incorporation)

47-1169572

(I.R.S. Employer Identification No.)

1010 Atlantic Avenue Alameda, California 94501 (510) 479-7635

(Address and telephone number of registrant's principal executive offices)

Stephen R. Clarke Chief Executive Officer Aqua Metals, Inc. 1010 Atlantic Avenue Alameda, California 94501 (510) 479-7635

(Name, address and telephone number of agent for service)

Copy to:

Daniel K. Donahue Greenberg Traurig, LLP 3161 Michelson Drive, Suite 1000 Irvine, California 92612 (949) 732-6500

Approximate date of commencement of proposed sale to the public:

From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: \Box

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registrations statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. \Box

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. \Box

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company (as defined in Rule 12b-2 of the Act):

Large accelerated filer □	Accelerated filer □
Non-accelerated filer □ (Do not check if a smaller reporting company)	Smaller reporting company ⊠

CALCULATION OF REGISTRATION FEE

	Title of each class of securities to be registered	Amount to be registered ⁽¹⁾	Offering Price Per Unit ⁽¹⁾	Aggregate Offering Price ⁽¹⁾⁽²⁾	Amount of registration fee ⁽³⁾⁽⁴⁾
	Common Stock, par value \$0.001 per share	_			
	Warrants	_	_	_	_
	Debt Securities	_	_	_	_
,	Fotal			\$ 100,000,000	\$ 10,070

- (1) Pursuant to Form S-3 General Instruction II.D information is not required to be included. With respect to the primary offering, an indeterminate amount of the securities of each identified class is being registered as may from time to time be offered hereunder at indeterminate prices, along with an indeterminate number of securities that may be issued upon exercise, settlement, exchange or conversion of securities offered or sold hereunder as shall have aggregate initial offering price not to exceed \$100 million. Pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, this registration statement also covers any additional securities that may be offered or issued in connection with any stock split, stock dividend or pursuant to anti-dilution provisions of any of the securities. Separate consideration may or may not be received for securities that are issuable upon conversion, exercise or exchange of other securities.
- (2) The proposed maximum aggregate offering price per unit will be determined from time to time by the Registrant in connection with, and at the time of, the issuance of the securities and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3.
- (3) Calculated pursuant to Rule 457(o) under the Securities Act based on the proposed maximum aggregate offering price of all securities listed.
- (4) Previously paid.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Amendment No. 2 (Amendment No. 2) to the Registration Statement on Form S-3 (File No. 333-213501) of Aqua Metals, Inc. (Registration Statement) is being filed solely for the purpose of revising the exhibits to the Registration Statement and our undertakings as indicated in Items 16 and 17, respectively, of Part II of this Amendment No. 2. This Amendment No. 2 does not modify any provision of the prospectus that forms a part of the Registration Statement. Accordingly, a preliminary prospectus has been omitted.

PART II – INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The estimated expenses in connection with the issuance and distribution of the securities being registered, all of which will be borne by us, are set forth in the following itemized table:

SEC Registration Fee	\$ 10,070.00
Printing Fees and Expenses	*
Legal Fees and Expenses	*
Accounting Fees and Expenses	*
Transfer Agent Fees and Expenses	*
Miscellaneous Fees and Expenses	 *
Total	\$ 10,070.00

^{*} Fees and expenses (other than the SEC registration fee to be paid upon the filing of this registration statement) will depend on the number and nature of the offerings, and cannot be estimated at this time. An estimate of the aggregate expenses in connection with the issuance and distribution of securities being offered will be included in any applicable prospectus supplement.

Item 15. Indemnification of Officers and Directors

We are incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law, or DGCL, provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. Section 145 of the DGCL further authorizes a corporation to purchase and maintain insurance on behalf of any indemnified person against any liability asserted against and incurred by such person in any indemnified capacity, or arising out of such person's status as such, regardless of whether the corporation would otherwise have the power to indemnify such person under the DGCL.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- · breach of a director's duty of loyalty to the corporation or its stockholders;
- · act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- · unlawful payment of dividends or redemption of shares; or
- transaction from which the director derives an improper personal benefit.

Our amended and restated certificate of incorporation authorizes us to, and our amended and restated bylaws provide that we must, indemnify our directors and officers to the fullest extent authorized by the DGCL and also pay expenses incurred in defending any such proceeding in advance of its final disposition upon delivery of an undertaking, by or on behalf of an indemnified person, to repay all amounts so advanced if it should be determined ultimately that such person is not entitled to be indemnified under this section or otherwise.

As permitted by the DGCL, we have entered into indemnification agreements with each of our directors and certain of our officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

Any underwriting agreement or similar agreement that we enter into in connection with an offer of securities pursuant to this registration statement may provide for indemnification by any underwriters of us, our directors, our officers who sign the registration statement and our controlling persons for some liabilities, including liabilities arising under the Securities Act of 1933.

Insofar as the forgoing provisions permit indemnification of directors, executive officers, or persons controlling us for liability arising under the Securities Act we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 16. Exhibits

The exhibits to this registration statement are listed below in the Exhibit Index.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i), (ii) and (iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post- effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date, or
- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned Registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of an undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

- That (1) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective, and (2) for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that, in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (9) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of section 310 of the Trust Indenture Act ("Act") in accordance with the rules and regulations prescribed by the Commission under section 305(b)(2) of the Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 2 to Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in Alameda, California on September 21, 2016.

Aqua Metals, Inc.

By: /s/ Stephen R. Clarke

Stephen R. Clarke Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 2 to Registration Statement on Form S-3 has been signed on September 21, 2016 by the following persons in the capacities indicated.

Signature	Title		
/s/ Stephen R. Clarke Stephen R. Clarke	President, Chief Executive Officer and Director (Principal Executive Officer)		
/s/ Thomas Murphy Thomas Murphy	Chief Financial Officer and Director (Principal Financial and Accounting Officer)		
* Vincent L. DiVito	Director		
* Mark Slade	Director		
*By: /s/ Stephen R. Clarke Stephen R. Clarke As Attorney-in-Fact			

EXHIBIT INDEX

Exhibit No.	Description		
1.1*	Form of Underwriting Agreement		
3.1	First Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on June 9, 2015)		
3.2	Amended and Restated Bylaws of the Registrant (incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on June 9, 2015)		
4.1**	Form of Senior Indenture		
4.2**	Form of Subordinated Indenture		
4.3**	Form of Senior Note		
4.4**	Form of Subordinated Note		
4.5*	Form of Warrant Agreement		
4.6*	Form of Unit Agreement		
4.7	Investor Rights Agreement between Aqua Metals, Inc. and Interstate Emerging Investments, LLC dated May 18, 2016 (incorporated by reference from the Registrant's Registration Statement on Form S-3 filed on August 1, 2016)		
5.1**	Opinion and Consent of Greenberg Traurig, LLP		
23.1**	Consent of Armanino LLP		
23.4**	Consent of Greenberg Traurig, LLP (included in Exhibit 5.1)		
24.1**	Power of Attorney (included on the signature page to this registration statement)		
25.1***	Form T-1 Statement of Eligibility of Trustee for Senior Indenture under the Trust Indenture Act of 1939		
25.2***	Form T-1 Statement of Eligibility of Trustee for Subordinated Indenture under the Trust Indenture Act of 1939		
* To be filed by amendment to this registration statement, or as an exhibit to a document to be incorporated by reference into this registration statement, in each case in connection with a particular offering of the securities.			

Previously filed

To be subsequently filed, if applicable, under the electronic form type "305B2."