

PROSPECTUS SUPPLEMENT

(TO PROSPECTUS DATED JANUARY 7, 2000)

442,822 SHARES

TEGAL CORPORATION

COMMON STOCK

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You should read this prospectus supplement and the accompanying prospectus carefully before you invest. Both documents contain information you should consider when making your investment decision.

SEE "RISK FACTORS" BEGINNING ON PAGE 7 OF THE PROSPECTUS TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING SHARES OF THE COMMON STOCK.

PLAN OF DISTRIBUTION

We are offering 442,822 shares of our common stock to Acqua Wellington North American Equities Fund Limited, an institutional investor, pursuant to this prospectus supplement. The common stock will be purchased at a negotiated purchase price of \$2,970,000. The \$2,970,000 purchase price reflects recent volume weighted average price of our common stock on Nasdaq National Market (subject to a previously negotiated threshold price), net of a 10% discount. In addition, we will pay to Financial West Group, through its institutional division Reedland Capital Partners, \$178,200 in cash commission on the sale of our common stock as well as issue to Financial West Group warrants to purchase 30,000 shares of our common stock with a per share exercise price equal to 120% of the average closing price of our common stock over the ten consecutive trading days immediately preceding the closing date of this offering. We will not pay any other compensation in conjunction with this sale of our common stock. We have agreed to indemnify Acqua Wellington and Financial West Group against liabilities, including liabilities under the Securities Act of 1933, as amended.

USE OF PROCEEDS

The net proceeds to us from this offering will be \$2,791,800. We plan to use the net proceeds for general corporate purposes, including:

S-1

- working capital;
- repaying our obligations as they become due; and
- financing capital expenditures.

Pending use of the net proceeds for any of these purposes, we may invest the net proceeds in short-term investment grade instruments, interest-bearing bank accounts, certificates of deposit, money market securities, U.S. government securities or mortgage-backed securities guaranteed by federal agencies.

MARKET FOR OUR COMMON STOCK

On March 27, 2000, the last reported sales price of our common shares on the Nasdaq National Market was \$6.406 per share. Our common stock is listed on the Nasdaq National Market under the symbol "TGAL." The common stock sold under

this prospectus supplement will be listed on the Nasdaq National Market. As of March 24, 2000 and before the issuance of shares pursuant to this prospectus supplement, we had 12,008,086 shares of common stock outstanding.

## GENERAL

You should rely only on the information provided or incorporated by reference in this prospectus supplement and the prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date on the front of these documents.

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NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER REGULATORY BODY HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

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The date of this prospectus supplement is March 28, 2000.

S-2

## TABLE OF CONTENTS

<TABLE>

<CAPTION>

PROSPECTUS SUPPLEMENT	Page
<S>	<C>
Plan of Distribution.....	S-1
Use of Proceeds.....	S-1
Market for Our Common Stock.....	S-2
Legal Matters.....	S-2
General.....	S-2

## PROSPECTUS

About This Prospectus.....	3
Where You Can Find More Information.....	4
Special Note Regarding Forward-Looking Statements.....	5
The Company.....	6
Use of Proceeds.....	7
Risk Factors.....	7
General Description of Securities.....	7
Description of Warrants.....	7
Plan of Distribution.....	8
Legal Matters.....	9
Experts.....	9

</TABLE>

S-3

SUBJECT TO COMPLETION, DATED JANUARY 7, 2000

TEGAL CORPORATION

COMMON STOCK  
WARRANTS TO PURCHASE COMMON STOCK

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We may from time to time sell up to \$8,000,000 in the aggregate of:

- shares of our common stock, par value \$0.01 per share ("Common Stock");
- and
- warrants to purchase Common Stock.

We will provide the specific terms of these securities in supplements to this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest.

Our common stock is traded on the Nasdaq National Market under the symbol "TGAL."

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NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

We will sell these securities directly to our shareholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will set forth the names of the agents or underwriters and any applicable fees, commissions or discounts.

This prospectus may not be used to consummate sales of securities unless accompanied by the applicable prospectus supplement.

The date of this prospectus is January 7, 2000.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying supplement to this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement as if we had authorized it. This prospectus and the accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the supplement to this prospectus is correct on any date after their respective dates, even though this prospectus or a supplement is delivered or securities are sold on a later date.

1

In connection with this offering, the underwriters may over-allot or effect transactions which stabilize or maintain the market price of the securities at levels above those which might otherwise prevail in the open market. This stabilizing, if commenced, may be discontinued at any time.

-----

TABLE OF CONTENTS

<TABLE>  
<CAPTION>

PAGE

----

<S> <C>  
ABOUT THIS PROSPECTUS..... 3

WHERE YOU CAN FIND MORE INFORMATION..... 4

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS.....	5
THE COMPANY.....	6
USE OF PROCEEDS.....	7
RISK FACTORS.....	7
GENERAL DESCRIPTION OF SECURITIES.....	7
DESCRIPTION OF WARRANTS.....	7
PLAN OF DISTRIBUTION.....	8
LEGAL MATTERS.....	9
EXPERTS .....	9

</TABLE>

2

### ABOUT THIS PROSPECTUS

This prospectus is a part of registration statement that we filed with the Securities and Exchange Commission utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$8,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus supplement together with additional information described under the next heading "Where You Can Find More Information."

3

### WHERE YOU CAN FIND MORE INFORMATION

We file annual and quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission. You can inspect and copy these reports, proxy statements and other information at:

-- the public reference facilities maintained by the SEC at Room 1024, 450 Fifth Street, N.W., Judiciary Plaza, Washington, D.C. 20549, and

-- the regional offices of the SEC:

Midwest Regional Office, Citicorp Center, Suite 1400, 14th Floor, 500 West Madison Street, Chicago, Illinois 60661-2511

Northeast Regional Office, Suite 1300, 13th Floor, 7 World Trade Center, New York, New York 10048.

You can also obtain copies of these materials from the public reference section of the SEC at 450 Fifth Street, N.W., Judiciary Plaza, Washington, D.C. 20549, at prescribed rates. You can obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site (<http://www.sec.gov>) that makes available reports, proxy statements and other information regarding registrants that file electronically with it. You can inspect reports and other information we file at the office of the New York Stock Exchange, Inc. 20 Broad Street, New York, New York 10005.

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Any statement contained in a document

incorporated by reference in this prospectus is automatically updated and superseded if information contained in this prospectus, or information that we later file with the SEC, modifies or replaces this information. We incorporate by reference the following documents filed by us with the SEC:

- - Annual Report on Form 10-K for the year ended March 31, 1999;
- - Proxy Statement for the 1999 Annual Meeting of Shareholders;
- - Quarterly Report on Form 10-Q for the period ended June 30, 1999;
- - Quarterly Report on Form 10-Q for the period ended September 30, 1999;
- - the description of the common stock contained in our Registration Statement on Form 8-A (File No. 01-26824), which was declared effective by the Commission on October 18, 1995, including any subsequently filed amendments and reports updating such description; and
- - all other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the termination of the offering, which shall be deemed to be a part hereof from the date of filing of such documents.

To receive a free copy of any of the documents incorporated by reference in this prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents), call or write to the Corporate Secretary, Tegal Corporation, 2201 S. McDowell Blvd., Petaluma, California 94954 (telephone (707) 763-5600).

4

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes or incorporates by reference forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Forward-looking statements, which are based on assumptions and describe our future plans, strategies and expectations, are generally identifiable by the use of the words "anticipate," "believe," "estimate," "expect," "intend," "project," or similar expressions. These forward-looking statements are subject to risks, uncertainties and assumptions about us. Important factors that could cause actual results to differ materially from the forward-looking statements we make in this prospectus are set forth under the caption "Risk Factors" and elsewhere in this prospectus and the documents incorporated by reference in this prospectus. If one or more of these risks or uncertainties materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements in this paragraph. We undertake no obligation to publicly update or revise any forward-looking statements to reflect future events or developments.

5

#### THE COMPANY

We design, manufacture, market and service plasma etch systems used in the fabrication of integrated circuits ("ICs") and other related devices such as gallium arsenide devices for wireless communications, thin film heads for disk drives, small flat panels and printer heads. Etching constitutes one of the principal IC and related device production process steps and must be performed numerous times in the production of such devices. We were formed in December 1989 to acquire the operations of the former Tegal Corporation, a division of Motorola, Inc. ("Motorola"). Our predecessor company was founded in 1972 and acquired by Motorola in 1978.

Our principal executive offices are located at 2201 South McDowell Road, Petaluma, California 94954 (telephone number (707) 763-5600).

## USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we anticipate that any net proceeds will be used for general corporate purposes, which may include but are not limited to working capital, capital expenditures, acquisitions and the repayment or refinancing of our indebtedness. When a particular series of securities is offered, the prospectus supplement relating thereto will set forth our intended use for the net proceeds we receive from the sale of the securities. Pending the application of the net proceeds, we expect to invest the proceeds in short-term, interest-bearing instruments or other investment-grade securities.

## RISK FACTORS

An investment in our common stock involves a high degree of risk. You should consider carefully the risk factors contained in our most recent filing on Form 10-Q or Form 10-K and all other information contained in this prospectus before deciding to purchase shares of our common stock. Additional risks and uncertainties that are not yet identified or that we think are immaterial may also materially harm our business, operating results and financial condition and could result in a complete loss of your investment.

## GENERAL DESCRIPTION OF SECURITIES

We directly or through agents, dealers, or underwriters designated from time to time, may offer, issue and sell, together or separately, up to \$8,000,000 in the aggregate of:

- shares of Common Stock; and
- warrants to purchase Common Stock ("Warrants"), or any combination of the foregoing, either individually or as units consisting of one or more of the foregoing, each on terms to be determined at the time of sale.

The Common Stock and the Warrants are collectively referred to herein as the "Securities."

## DESCRIPTION OF WARRANTS

Warrants may be issued independently or together with any Common Stock and may be attached to or separate from such securities. The warrants are to be issued under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, all as shall be set forth in the prospectus supplement relating to warrants being offered pursuant thereto. As of the date hereof, we have no warrants outstanding.

## TERMS OF WARRANTS

The applicable prospectus supplement will describe the terms of warrants offered thereby, the warrant agreement relating to such warrants and the warrant certificates representing such warrants ("Warrant Certificates"), including the following:

- the title of such Warrants;
- the Common Stock for which such Warrants are exercisable;
- the price or prices at which such Warrants will be issued;
- if applicable, the number of such Warrants issued with each such share of Common Stock;
- if applicable, the date on and after which such Warrants and the related Common Stock will be separately transferable;

- - if applicable, a discussion of any material federal income tax considerations; and
- - any other terms of such Warrants, including terms, procedures and limitations relating to the exchange and exercise of such Warrants.

Warrant certificates will be exchangeable for new Warrant certificates of different denominations, and Warrants may be exercised at the corporate trust office of the Warrant agent or any other office indicated in the prospectus supplement. Holders of Warrants will not be entitled, by virtue of being such holders, to vote, to consent, to receive dividends, to receive notice as stockholders with respect to any meeting of our stockholders for the election of our directors or any other matter, or to exercise any rights whatsoever as our stockholders.

#### EXERCISE OF WARRANTS

Each Warrant will entitle the holder to purchase for cash such number of shares of Common Stock at such exercise price as shall in each case be set forth in, or be determinable as set forth in, the prospectus supplement relating to the Warrants offered thereby. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the prospectus supplement relating to the Warrants offered thereby. After the close of business on the expiration date, unexercised Warrants will become void.

Warrants may be exercised as set forth in the prospectus supplement relating to the Warrants offered thereby. Upon receipt of payment and the Warrant Certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the Securities purchasable upon such exercise. If less than all of the Warrants represented by such Warrant Certificate are exercised, a new Warrant Certificate will be issued for the remaining warrants.

#### PLAN OF DISTRIBUTION

We may sell the Securities to one or more underwriters for public offering and sale by them or may sell the Securities to investors directly or through agents. Any such underwriter or agent involved in the offer and sale of Securities will be named in the applicable prospectus supplement. We have reserved the right to sell Securities directly to investors on our own behalf in those jurisdictions where and in such manner as we are authorized to do so.

Underwriters may offer and sell Securities:

- - at a fixed price or prices, which may be changed;
- - at market prices prevailing at the time of sale;
- - at prices related to such prevailing market prices; or
- - at negotiated prices.

We also may, from time to time, authorize dealers, acting as our agents, to offer and sell Securities upon the terms and conditions as are set forth in the applicable prospectus supplement. In connection with the sale of Securities, underwriters may receive compensation from us in the form of underwriting discounts or commissions and may also receive commissions from purchasers of the Securities for whom they may act as agent. Underwriters may sell Securities to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent.

Any underwriting compensation paid by us to underwriters or agents in connection with the offering of Securities, and any discounts, concessions or commissions allowed by underwriters to participating

agents participating in the distribution of Securities may be deemed to be underwriters, and any discounts and commissions received by them and any profit realized by them on resale of the Securities may be deemed to be underwriting discounts and commissions. Underwriters, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward certain civil liabilities, including liabilities under the Securities Act of 1933.

If so indicated in the prospectus supplement, we will authorize dealers acting as our agents to solicit offers by certain institutions to purchase the Securities from us at the public offering price set forth in the applicable prospectus supplement pursuant to delayed delivery contracts ("Contracts") providing for payment and delivery on the date or dates stated in such prospectus supplement. Each Contract will be for an amount not less than the amounts stated in the applicable prospectus supplement. Institutions with whom Contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions, and other institutions but will in all cases be subject to our approval. Contracts will not be subject to any conditions except:

- - the purchase by the institution of the Securities covered by its Contract shall not at the time of delivery be prohibited under the laws of any jurisdiction in the United States to which such institution is subject; and
- - if the Securities are being sold to underwriters, we shall have sold to such underwriters the total amount specified in the applicable prospectus supplement.

A commission indicated in the applicable prospectus supplement will be paid to underwriters and agents soliciting purchases of Securities pursuant to Contracts accepted by us.

#### LEGAL MATTERS

Certain legal matters with respect to the Securities offered by this prospectus will be passed upon for us by Latham & Watkins, San Francisco, California.

#### EXPERTS

The financial statements incorporated by reference to the Annual Report on Form 10-K for the year ended March 31, 1999 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.