
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

TEGAL CORPORATION

DELAWARE	68-0370244
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)

2201 S. McDowell Blvd.
Petaluma, California 94954
(707) 763-5600

(Address, including zip code, and telephone number of
Registrant's principal executive offices)

Michael L. Parodi
President and Chief Executive Officer
Tegal Corporation
2201 S. McDowell Blvd.
Petaluma, California 94954
(707) 763-5600

(Name, address, including ZIP code, and telephone
number, including area code, of agent for service)

COPIES TO:
Christoper L. Kaufman, Esq.
Latham & Watkins
135 Commonwealth Dr.
Menlo Park, California 94025
(650) 328-4600
Fax: (650) 463-2600

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE
PUBLIC: As soon as practicable after the effective date of this registration
statement.

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, check the following box. /X/

If this form is filed to register additional securities for an offering
pursuant to Rule 462(b) under the Securities Act of 1933, check the following
box and list the Securities Act registration statement number of the earlier
effective registration statement for the same offering. //

If this form is a post-effective amendment filed pursuant to Rule
462(c) under the Securities Act of 1933, check the following box and list the
Securities Act registration statement number of the earlier effective
registration statement for the same offering. //

If this form is a post-effective amendment filed pursuant to Rule
462(d) under the Securities Act of 1933, check the following box and list the
Securities Act registration statement number of the earlier effective
registration statement for the same offering. //

If delivery of the prospectus is expected to be made pursuant to Rule
434, please check the following box. //

CALCULATION OF REGISTRATION FEE

<TABLE>

<CAPTION>

TITLE OF SHARES TO BE REGISTERED	PROPOSED MAXIMUM		FEE
	AGGREGATE	AMOUNT OF REGISTRATION	
		OFFERING PRICE (1)(2)	
<S>	<C>	<C>	
Common Stock, \$0.01 par value(3).....	N/A	N/A	
Warrants.....	N/A	N/A	
Total.....	\$8,000,000	\$2,112	

</TABLE>

- (1) Estimated solely for purposes of determining the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.
- (2) Not specified as to each class of securities to be registered hereunder pursuant to General Instruction II(D) to Form S-3 under the Securities Act of 1933.
- (3) Each share of Common Stock includes one common share purchase right under the Rights Agreement dated as of June 11, 1996 between us and Chasemellon Shareholder Services, L.L.C., as Rights Agent.

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 SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

SUBJECT TO COMPLETION, DATED JANUARY 4, 2000

TEGAL CORPORATION

COMMON STOCK
WARRANTS TO PURCHASE COMMON STOCK

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."

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 4, 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.

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.

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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."

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).

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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.

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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).

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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 dealers, will be set forth in the applicable prospectus supplement. Dealers and 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.

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The expenses to be paid by us in connection with the distribution of the securities being registered are as set forth in the following table:

<TABLE>

<CAPTION>

<S>		<C>	
Securities and Exchange Commission Fee.....			\$2,112
Legal Fees and Expenses.....		*	
Accounting Fees and Expenses.....		*	
Printing Expenses.....		*	
Miscellaneous.....		*	

Total.....		*	
		=====	

</TABLE>

*To be filed by amendment.

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Company's Certificate of Incorporation provides that to the fullest extent permitted by the Delaware General Corporation Law ("DGCL"), a director of the Company shall not be liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. Subsection (b)(7) of Section 102 of the DGCL enables a corporation in its original certificate of incorporation or an amendment thereto to eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary damages for violations of the director's fiduciary duty, except (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the DGCL (providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which a director derived an improper personal benefit. The effect of the provision of the Company's Certificate of Incorporation is to eliminate the rights of the Company and its stockholders (through stockholders' derivative suits on behalf of the Company) to recover monetary damages against a director for breach of the fiduciary duty of care as a director (including breaches resulting from negligent or grossly negligent behavior) except in the situations described in clauses (i) through (iv) above. This provision does not limit or eliminate the rights of the Company or any stockholder to seek nonmonetary relief such as an

injunction or rescission in the event of a breach of a director's duty of care.

Subsection (a) of Section 145 of the DGCL empowers a corporation to indemnify any present or former director, officer, employee or agent of the corporation, or any individual serving at the Company's request as a director, officer or employee of another organization, who was or is a party or is threatened to be made a party 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 the corporation), against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding provided that such director, officer, employee or agent acted in good faith and in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, provided further that such director, officer, employee or agent had no reasonable cause to believe his conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any present or former director, officer, employee or agent who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred in connection with the defense or settlement of such action or suit provided that such director, officer, employee or agent acted in good faith and in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect to any claim, issue or matter

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as to which such director, officer, employee or agent shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all of the circumstances of the case, such director, officer, employee or agent is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director, officer, employee or agent has been successful in the defense of any action, suit or proceeding referred to in subsections (a) and (b) or in the defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys fees) actually and reasonably incurred by him in connection therewith; that indemnification and advancement of expenses provided for, by, or granted pursuant to Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and empowers the corporation to purchase and maintain insurance on behalf of a present or former director, officer, employee or agent of the corporation, or any individual serving at the Company's request as a director, officer or employee of another organization, against any liability asserted against him or incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liabilities under Section 145.

The Company's Certificate of Incorporation provides that the Company shall indemnify its directors, officers, employees and agents against losses incurred by any such person by reason of the fact that such person was acting in such capacity. In addition, pursuant to an agreement with holders of securities providing for registration rights, such holders are entitled to be indemnified by the Company for certain liabilities under federal securities laws.

The Company has in effect directors' and officers' liability policies in the aggregate amount of \$10 million covering all of its directors and officers.

ITEM 16. EXHIBITS

<TABLE>

<CAPTION>

<S> <C>

1.1* Form of Underwriting Agreement.

- 4.1 Certificate of Incorporation of the Company (incorporated by reference to Exhibits 3(i).1 and 3(i).2 included in the Company's Registration Statement on Form S-1 (No. 33-84702)).
- 4.2 Bylaws of the Company (incorporated by reference to Exhibit 3(ii) included in the Company's Registration Statement on Form S-1 (No. 33-84702)).
- 4.3 Information and Registration Rights Agreement between Tegal Corporation and the other persons listed thereto dated as of December 19, 1989, as amended to date (incorporated by reference to Exhibit 4.2 included in the Company's Registration Statement on Form S-1 (No. 33-84702)).
- 4.4** Form of Warrant Agreement for Warrants.
- 5.1 Opinion of Latham & Watkins.
- 23.1 Consent of PricewaterhouseCoopers LLP.
- 23.2 Consent of Latham & Watkins (included in Exhibit 5).
- 24.1 Powers of Attorney.

</TABLE>

 *To be filed by a report on Form 8-K pursuant to Regulation S-K, Item 601(b).

**To be filed by amendment or incorporated by reference in connection with the offering of the Securities.

ITEM 17. UNDERTAKINGS

(a) 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 of 1933;

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(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 SEC 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;

(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 the information required to be included in a post-effective amendment by paragraphs (a)(1)(i) and (a)(1)(ii) above may be contained in periodic reports filed by the Registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in 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.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 and (and, where applicable, each filing of an

employee benefit plan's annual report pursuant to section 15(d) of the Securities 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.

(e) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report, to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X is not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

(h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 of 1933 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 their 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 of 1933 and will be governed by the final adjudication of such issue.

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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 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Petaluma, California on January 4, 2000.

TEGAL CORPORATION

By /s/ Michael L. Parodi

Michael L. Parodi
Chairman of the Board, President
and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below does hereby constitute and appoint Michael L. Parodi with full power of substitution and full power to act without the other, such person's true and lawful attorney-in-fact and agent to act for such person in such person's name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement on Form S-3, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises in order to effectuate the same as fully, to all intents and purposes, as such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this

Registration Statement has been signed by the following persons in the capacities indicated on January 4, 2000.

<TABLE>

<CAPTION>

SIGNATURE -----	TITLE -----
<S> /s/ Michael L. Parodi ----- Michael L. Parodi	<C> Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)
/s/ David Curtis ----- David Curtis	Vice President, Finance and Administration, Secretary, Treasurer and Chief Financial Officer (Principal Financial Officer)
/s/ Jeffrey M. Krauss ----- Jeffrey M. Krauss	Director
/S/ Thomas R. Mika ----- Thomas R. Mika	Director
/S/ Fred Nazem ----- Fred Nazem	Director
/S/ Edward A. Dohring ----- Edward A. Dohring	Director

</TABLE>

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EXHIBIT INDEX

<TABLE>

<S> <C>

1.1*	Form of Underwriting Agreement.
4.1	Certificate of Incorporation of the Company (incorporated by reference to Exhibits 3(i).1 and 3(i).2 included in the Company's Registration Statement on Form S-1 (No. 33-84702)).
4.2	Bylaws of the Company (incorporated by reference to Exhibit 3(ii) included in the Company's Registration Statement on Form S-1 (No. 33-84702)).
4.3	Information and Registration Rights Agreement between Tegal Corporation and the other persons listed thereto dated as of December 19, 1989, as amended to date (incorporated by reference to Exhibit 4.2 included in the Company's Registration Statement on Form S-1 (No. 33-84702)).
4.4**	Form of Warrant Agreement for Warrants.
5.1	Opinion of Latham & Watkins.
23.1	Consent of PricewaterhouseCoopers LLP.
23.2	Consent of Latham & Watkins (included in Exhibit 5).
24.1	Powers of Attorney.

</TABLE>

*To be filed by a report on Form 8-K pursuant to Regulation S-K, Item 601(b).

**To be filed by amendment or incorporated by reference in connection with the offering of the Securities.

EXHIBIT 5.1

[Latham & Watkins Letterhead]

January 4, 2000

Tegal Corporation
2201 S. McDowell Blvd.
Petaluma, California 94954

Re: \$8,000,000 Aggregate Offering
PRICE OF SECURITIES OF TEGAL CORPORATION

Ladies and Gentlemen:

In connection with the registration statement on Form S-3 filed on January 4, 2000 (the "Registration Statement") with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), you have requested our opinion with respect to the matters set forth below.

You have provided us with a draft prospectus (the "Prospectus") which is a part of the Registration Statement. The Prospectus provides that it will be supplemented in the future by one or more supplements to the Prospectus (each a "Prospectus Supplement"). The Prospectus as supplemented by various Prospectus Supplements will provide for the issuance and sale by Tegal Corporation, a Delaware corporation (the "Company") of up to \$8,000,000 aggregate offering price of (i) shares of common stock, par value \$0.01 per share (the "Common Stock"), and (ii) warrants to purchase Common Stock ("Warrants"). The Common Stock and Warrants are collectively referred to herein as the "Securities." The Warrants may be issued pursuant to one or more warrant agreements (collectively, the "Warrant Agreements"), in each case between the Company and a financial institution identified therein as warrant agent (each, a "Warrant Agent").

In our capacity as counsel to the Company in connection with the Registration Statement, we are generally familiar with the proceedings taken and proposed to be taken by the Company in connection with the authorization and issuance of the Securities. For purposes of this opinion, we have assumed that such proceedings will be timely and properly completed, in accordance with all requirements of applicable federal Delaware and New York laws, in the manner presently proposed.

We have made such legal and factual examinations and inquiries, including an examination of originals and copies certified or otherwise identified to our satisfaction, of all such documents, corporate records and instruments of the Company as we have deemed necessary or appropriate for purposes of this opinion. In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, and the conformity to authentic original documents of all documents submitted to us as copies.

We have been furnished with, and with your consent have exclusively relied upon, certificates of officers of the Company with respect to certain factual matters. In addition, we have obtained and relied upon such certificates and assurances from public officials as we have deemed necessary.

We are opining herein as to the effect on the subject transaction only of the federal securities laws of the United States, the General Corporation Law of the State of Delaware, including statutory and reported decisional law thereunder, and with respect to the opinion set forth in paragraph 1 below, the internal laws of the State of New York, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction or, in the case of Delaware, any other laws, or as to any matters

of municipal law or the laws of any local agencies within any state.

Subject to the foregoing and the other qualifications set forth herein, it is our opinion that, as of the date hereof:

1. When (a) the applicable Warrant Agreement has been duly executed and delivered, and the terms of the Warrants and of their issuance and sale have been duly established in conformity with the applicable Warrant Agreement and applicable law, and (b) when the Warrants have been duly executed and countersigned in accordance with the applicable Warrant Agreement relating to such Warrants, and issued and sold in the form and in the manner contemplated in the Registration Statement, the Prospectus and the related Prospectus Supplement(s), and (c) when the Registration Statement and any required post-effective amendment thereto and any and all Prospectus Supplement(s) required by applicable laws have all become effective under the Securities Act, and (d) assuming that the terms of the applicable Warrant Agreement as executed and delivered are as described in the Registration Statement, the Prospectus and the related Prospectus Supplement(s), and (e) assuming that the applicable Warrant Agreement as executed and delivered does not violate any law applicable to the Company or result in a default under or breach of any agreement or instrument binding upon the Company, and (f) assuming that the applicable Warrant Agreement as executed and delivered complies with all requirements and restrictions, if any, applicable to the Company, whether imposed by any court or governmental or regulatory body having jurisdiction over the Company, and (g) assuming that the Warrants are then issued and sold as contemplated in the Registration Statement, the Prospectus and the related Prospectus Supplement(s), the applicable Warrant Agreement will constitute a valid and legally binding obligation of the Company, enforceable against the Company in accordance with the applicable Warrant Agreement's terms.

2. The Company has the authority pursuant to its Certificate of Incorporation to issue up to 35,000,000 shares of Common Stock. Upon adoption by the Board of Directors of the Company of a resolution in form and content as required by applicable law and upon issuance and delivery of and payment for such shares in the manner contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement(s) and by such resolution, such shares of Common Stock (including any Common Stock duly issued upon the exercise of any Warrants exercisable for Common Stock) will be validly issued, fully paid and nonassessable.

All of the opinions set forth above are subject to the following exceptions, limitations and qualifications: (i) the effect of bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, including without limitation, concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance or injunctive relief, regardless of whether enforcement is considered in a proceeding in equity or at law, and the discretion of the court before which any proceeding therefor may be brought; (iii) the unenforceability under certain circumstances under law or court decisions of provisions providing for the indemnification of, or contribution to, a party with respect to a liability where such indemnification or contribution is contrary to public policy; and (iv) we express no opinion concerning the enforceability of any waiver or rights or defenses with respect to stay, extension or usury laws.

To the extent that the obligations of the Company under the applicable Warrant Agreement may be dependent upon such matters, we assume for purposes of this opinion that the Warrant Agent for each Warrant Agreement is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization; that the Warrant Agent is duly qualified to engage in the activities contemplated by the applicable Warrant Agreement; that the applicable Warrant Agreement has been duly authorized, executed and delivered by the Warrant Agent and constitutes a legally valid, binding and enforceable obligation of the Warrant Agent, enforceable against the Warrant Agent in accordance with its terms; that the Warrant Agent is in compliance, generally and with respect to acting as Warrant Agent under the applicable Warrant Agreement, with all applicable laws and regulations; and that the Warrant Agent has the requisite organizational and legal power and authority to perform its obligations under the applicable Warrant Agreement.

We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Prospectus included therein.

Very truly yours,

/s/ Latham & Watkins

Exhibit 23.1

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated April 28, 1999, relating to the financial statements and the financial statement schedule, which appears on page 38 of Tegal Corporation's Annual Report on Form 10-K for the year ended March 31, 1999. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

PricewaterhouseCoopers LLP
San Jose, California
January 4, 2000